WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°25'06", long 77°01'59", Lycoming County, Hydrologic Unit 02050206, on right bank 150 ft upstream from bridge on Township Route 840, 0.5 mi downstream from Grays Run, and 2.6 mi northeast of Trout Run.

DRAINAGE AREA.--173 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1913 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 921: 1933, 1934(M), 1935-39. WSP 1302: 1914-16, 1922(M), 1932-25, 1926(M), 1927-28, 1930, 1931(M). WSP 1502: 1920-21(M), 1932(M), 1933.

GAGE.--Water-stage recorder. Datum of gage is 693.95 ft above National Geodetic Vertical Datum of 1929. Prior to June 1, 1939, nonrecording gage at site 150 ft downstream at same datum.

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 2,900 ft^3/s and maximum (*):

Date	Time	Discharge ft^3/s	Gage Height (ft)
Mar. 20	2315	*7,430	*10.42
June 21	0700	2,980	6.99
Aug. 5	0330	5,220	8.87
Sept. 23	0730	5,260	8.90

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	107	281	265	396	104	266	576	214	1600	189	617	122
2	87	268	236	961	102	255	757	213	1060	169	549	357
3	73	245	208	555	97	e240	847	205	733	154	435	292
4	63	227	e170	459	146	e230	712	191	686	144	852	815
5	65	213	186	395	191	223	1100	182	606	132	3510	666
6	61	273	183	357	e150	218	906	182	486	120	2070	431
7	56	291	168	317	137	e200	761	175	487	156	1110	340
8	52	255	164	304	122	e200	664	178	523	238	737	285
9	48	242	145	334	e120	202	582	171	423	163	594	247
10	46	231	e140	375	115	e200	572	161	381	162	581	219
11	61	293	144	303	e110	e170	823	169	343	250	502	193
12	499	334	174	263	108	187	1120	221	349	204	609	171
13	430	428	181	234	101	195	838	198	366	154	431	161
14	336	379	337	e200	99	186	683	179	331	132	367	187
15	264	354	426	210	e86	193	579	167	280	121	309	180
16	650	349	366	e190	75	324	503	193	241	128	272	334
17	1070	812	e300	e170	80	1190	436	339	218	116	311	228
18	576	861	e260	e160	101	2280	390	281	240	112	247	187
19	441	666	285	e170	106	2180	385	256	234	146	214	303
20	380	562	1070	176	98	2570	359	239	217	120	188	552
21	304	511	1020	147	94	4500	330	235	1810	112	170	377
22	257	509	706	144	111	3140	341	224	1350	561	158	330
23	226	535	557	143	412	2020	323	205	871	365	148	2630
24	202	451	453	145	467	1480	295	338	581	614	134	1250
25	188	414	411	147	367	1180	272	410	438	363	124	811
26	503	374	359	136	e320	1040	269	357	358	267	117	617
27	445	347	305	115	305	887	276	330	313	253	116	478
28	376	317	265	114	287	689	252	304	268	372	108	771
29	329	295	258	121	---	677	239	303	231	260	100	516
30	310	282	233	112	---	753	224	265	207	209	103	415
31	296	---	228	106	---	638	---	290	---	178	102	---
TOTAL	8801	11599	10203	7959	4611	28713	16414	7375	16231	6664	15885	14465
MEAN	284	387	329	257	165	926	547	238	541	215	512	482
MAX	1070	861	1070	961	467	4500	1120	410	1810	614	3510	2630
MIN	46	213	140	106	75	170	224	161	207	112	100	122
CFSM	1.64	2.23	1.90	1.48	0.95	5.35	3.16	1.38	3.13	1.24	2.96	2.79
IN.	1.89	2.49	2.19	1.71	0.99	6.17	3.53	1.59	3.49	1.43	3.42	3.11

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

MEAN	159	297	308	271	295	591	624	384	207	112	90.9	107
MAX	983	1044	1003	1095	1082	1788	1783	979	1488	674	812	776
(WY)	1991	1927	1997	1996	1981	1936	1993	1919	1972	1915	1994	1975
MIN	7.65	13.4	26.4	20.5	37.8	160	132	74.8	18.0	16.0	10.3	6.25
(WY)	1965	1965	1965	1931	1931	1969	1946	1941	1991	1964	1964	1964

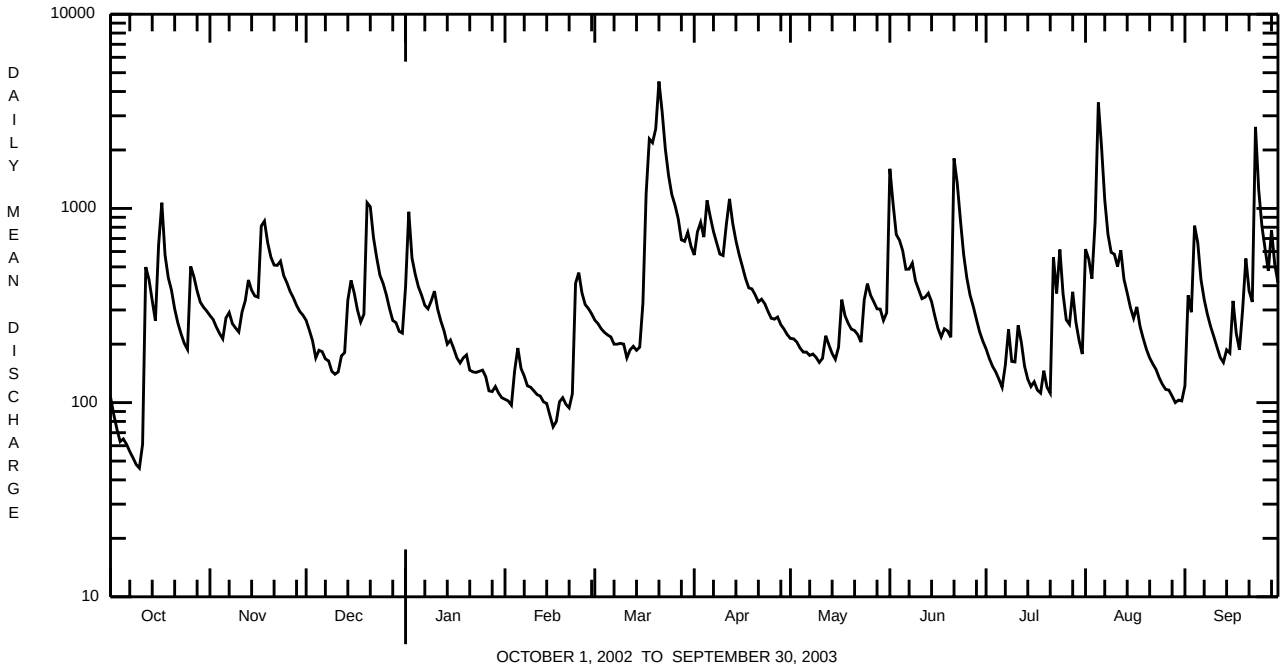
e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1914 - 2003	
ANNUAL TOTAL	94710.8		148920			
ANNUAL MEAN	259		408		287	
HIGHEST ANNUAL MEAN					491	1978
LOWEST ANNUAL MEAN					124	1965
HIGHEST DAILY MEAN	2570	Mar 27	4500	Mar 21	15000	Jan 19 1996
LOWEST DAILY MEAN	8.1	Sep 10	46	Oct 10	4.0	Sep 19-24 1936**a**
ANNUAL SEVEN-DAY MINIMUM	9.1	Sep 7	56	Oct 5	4.1	Sep 18 1936
MAXIMUM PEAK FLOW			**b**7430	Mar 20	**b**32000	Jan 19 1996
MAXIMUM PEAK STAGE			10.42	Mar 20	**c**22.68	Jan 19 1996
INSTANTANEOUS LOW FLOW					3.2	Sep 27 1936
ANNUAL RUNOFF (CFSM)	1.50		2.36		1.66	
ANNUAL RUNOFF (INCHES)	20.37		32.02		22.53	
10 PERCENT EXCEEDS	505		787		665	
50 PERCENT EXCEEDS	213		272		142	
90 PERCENT EXCEEDS	26		115		25	

a Also Sept. 27, 28, 1936 and Sept. 1, 1968.
b From rating curve extended above 5,300 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmark in gage.



OCTOBER 1, 2002 TO SEPTEMBER 30, 2003

01550000 LYCOMING CREEK NEAR TROUT RUN, 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 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)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
OCT 2002													
10...	1130	1028	9813	46	30	10.8	7.1	83	12.8	33	9.85	9.8	2.03
NOV													
14...	1015	1028	9813	375	30	12.4	7.4	67	6.9	25	7.57	7.3	1.55
DEC													
11...	1130	1028	9813	138	30	14.0	7.1	63	.6	--	8.25	7.5	1.85
JAN 2003													
22...	0830	1028	9813	122	30	14.2	7.3	80	.0	25	7.21	7.3	1.61
FEB													
10...	0915	1028	9813	114	30	14.4	7.7	72	.2	23	6.80	6.7	1.55
MAR													
18...	1115	1028	9813	1740	30	13.8	7.8	55	2.6	19	5.66	5.6	1.27
APR													
15...	1030	1028	9813	582	30	12.3	6.9	53	6.8	19	5.38	5.4	1.27
MAY													
08...	1130	1028	9813	180	30	10.8	7.2	49	11.5	23	6.96	6.8	1.48
JUN													
11...	1230	1028	9813	343	30	10.3	6.0	52	12.4	21	6.19	6.1	1.52
JUL													
24...	1100	1028	9813	604	30	9.2	7.3	69	17.0	27	7.37	7.8	1.59
AUG													
14...	0715	1028	9813	384	30	9.6	7.3	54	16.4	21	5.89	6.0	1.41
SEP													
03...	1330	1028	9813	273	30	10.1	7.3	77	15.7	24	6.95	7.1	1.42

Date	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf 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 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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)
OCT 2002													
10...	2.0	18	.0	3.8	<.2	13.9	42	4	.050	.35	<.040	<.01	<.010
NOV													
14...	1.6	11	.0	4.0	<.2	11.6	--	<2	<.020	.41	<.040	<.01	<.010
DEC													
11...	172	12	.0	3.5	<.2	12.0	154	<2	<.020	.56	<.040	<.01	<.010
JAN 2003													
22...	1.6	11	.0	3.6	<.2	12.4	48	<2	<.020	.70	<.040	<.01	<.010
FEB													
10...	1.5	10	.0	3.6	<.2	10.5	94	2	<.020	.62	<.040	<.01	<.010
MAR													
18...	1.3	8	.0	3.6	<.2	9.0	34	14	<.020	.86	<.040	.02	.023
APR													
15...	1.3	8	.0	2.5	<.2	9.7	66	<2	<.020	.51	<.040	<.01	.011
MAY													
08...	1.5	12	.0	3.0	<.2	10.8	270	6	<.020	.38	<.040	<.01	<.010
JUN													
11...	1.4	11	.0	2.3	<.2	9.1	66	<2	<.020	.30	<.040	<.01	<.010
JUL													
24...	1.9	15	.0	3.6	<.2	8.1	18	48	<.020	.45	<.040	.11	.068
AUG													
14...	1.5	12	.0	1.9	<.2	8.5	42	2	<.020	.33	<.040	<.01	<.010
SEP													
03...	1.5	16	.0	3.7	<.2	9.1	78	<2	<.020	.33	<.040	<.01	<.010

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

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

Date	Total nitro-gen, water, unfltrd mg/L (00600)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45uMF col/ 100 mL (31616)	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)
OCT 2002													
10...	.44	1.1	80	16	24	<4	<4	<20	80	<1.0	<1.0	6.3	8.4
NOV													
14...	.99	1.1	<20	47	77	<4	<4	20	40	<1.0	<1.0	20	20
DEC													
11...	.83	.2	<20	42	64	<4	<4	<20	20	<1.0	<1.0	20	20
JAN 2003													
22...	.57	.7	10	40	74	<4	<4	<20	<20	<1.0	<1.0	20	20
FEB													
10...	.48	.6	<20	45	63	<4	<4	<20	<20	<1.0	<1.0	10	10
MAR													
18...	1.2	1.6	20	70	400	<4	<4	20	670	<1.0	<1.0	40	80
APR													
15...	.66	.8	10	67	96	<4	<4	<20	50	<1.0	<1.0	30	30
MAY													
08...	.47	1.1	20	33	66	<4	<4	<20	<20	<1.0	<1.0	10	10
JUN													
11...	.37	.8	<20	30	73	<4	<4	20	30	<1.0	<1.0	20	20
JUL													
24...	.74	1.4	2600	52	1500	<4	<4	90	2090	<1.0	1.3	10	110
AUG													
14...	.37	.9	30	34	59	<4	<4	<20	50	<1.0	<1.0	20	30
SEP													
03...	.37	1.2	200	32	55	<4	<4	30	120	<1.0	<1.0	10	20

Date	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)	Phen-olic com-pounds, water, unfltrd µg/L (32730)
OCT 2002					
10...	<4.0	<4.0	<5.0	<5.0	<5
NOV					
14...	<4.0	<4.0	8.3	8.3	<5
DEC					
11...	<4.0	<4.0	7.4	7.2	<5
JAN 2003					
22...	<4.0	<4.0	9.3	9.1	<5
FEB					
10...	<4.0	<4.0	7.4	7.6	<5
MAR					
18...	<4.0	<4.0	7.7	10	<5
APR					
15...	<4.0	<4.0	60	20	<5
MAY					
08...	<4.0	<4.0	<5.0	5.4	<5
JUN					
11...	<4.0	<4.0	5.8	6.6	<5
JUL					
24...	<4.0	<4.0	<5.0	10	<5
AUG					
14...	<4.0	<4.0	5.4	6.0	<5
SEP					
03...	<4.0	<4.0	<5.0	<5.0	<5

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

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 µm. Samples represent counts per 200 (approximate) subsamples.

Date	3/19/02
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	1
Tubificida	
Naididae	2
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis sp	3
Caenidae	
Caenis sp	
Ephemerellidae	1
Drunella sp	24
Ephemerella sp	9
Serratella sp	5
Heptageniidae	
Cinygmula sp	4
Epeorus sp	15
Rhithrogena sp	2
Stenonema sp	5
Isonychiidae	
Isonychia sp	5
Leptophlebiidae	
Paraleptophlebia sp	16
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	
Ophiogomphus sp	1
Plecoptera (STONEFLIES)	
Leuctridae	
Leuctra sp	1
Perlodidae	
Isoperla sp	2
Taeniopterygidae	
Taenionema sp	1

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	3/19/02
Benthic Macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Brachycentridae	
Brachycentrus sp	1
Helicopsychidae	
Helicopsyche sp	1
Hydropsychidae	
Cheumatopsyche sp	10
Hydropsyche sp	6
Leptoceridae	
Setodes sp	1
Rhyacophilidae	
Rhyacophila sp	10
Uenoidae	
Neophylax sp	13
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus sp	1
Psephenidae (WATER PENNIES)	
Psephenus sp	15
Diptera (TRUE FLIES)	
Athericidae	
Atherix sp	1
Chironomidae (MIDGES)	44
Simuliidae (BLACK FLIES)	
Prosimulium sp	2
Tipulidae (CRANE FLIES)	
Antocha sp	3
Hexatoma sp	8
Total Organisms	215