

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°16'25", long 77°19'28", Lycoming County, Hydrologic Unit 02050205, on left bank on State Highway 44, on abutment of abandoned bridge 0.9 mi downstream from Ramsey Run, 4.0 mi downstream from Little Pine Creek, 4.0 mi south of Waterville, and 9.2 mi upstream from mouth.

DRAINAGE AREA.--944 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR PA-72-1: 1964(P).

GAGE.--Water-stage recorder. Datum of gage is 570.62 ft above National Geodetic Vertical Datum of 1929. Prior to June 16, 1982, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flood flows subject to regulation by Little Pine Dam 8.5 mi upstream, capacity 24,900 acre-ft. 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 9,200 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Mar. 22	0315	*17,300	*8.38	No other peak greater than base discharge.			

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	230	414	830	1180	e440	e1400	2630	656	4400	792	3150	352
2	186	400	740	3140	e420	e1400	2950	636	5190	676	4910	1390
3	158	383	713	2570	e400	e1300	3600	659	4070	597	4030	1780
4	139	365	e580	2210	e520	e1400	3480	604	3610	540	4090	2550
5	139	353	e500	1930	e700	e1400	5190	574	3190	493	3630	3110
6	131	389	e530	1740	e630	e1200	5800	579	2720	440	3810	2330
7	123	451	e500	1570	e580	e1100	4870	578	2450	408	2750	1790
8	113	449	e540	1480	e520	e1000	4020	596	2770	470	2210	1440
9	102	433	e480	1490	e500	e1000	3310	619	2460	413	3010	1200
10	93	422	e420	1690	e470	e1100	2910	572	2230	432	4540	1010
11	105	465	e440	1500	e440	e870	2960	570	1970	536	4190	860
12	188	535	e520	1310	e420	e1000	3090	668	2020	573	3380	742
13	258	598	e660	1260	e400	e1100	2870	691	2340	411	2530	693
14	209	631	e820	1160	e400	e1200	2590	663	2230	337	1960	759
15	178	595	e1400	1050	e380	e1400	2330	644	2080	296	1560	730
16	202	590	1320	967	e340	e2000	2090	700	1820	280	1300	1050
17	615	1020	e980	e900	e380	e4800	1850	1050	1560	261	1270	985
18	581	e2500	e830	e780	e430	10200	1630	1160	1400	255	1040	741
19	423	e1900	e790	e700	e490	11100	1480	1190	1330	311	867	797
20	370	1640	1580	e700	e440	10200	1350	1170	1150	312	741	1670
21	342	1430	3680	e600	e400	15900	1240	1180	4030	264	642	1450
22	305	1330	2910	e600	e590	16000	1240	1140	5560	1840	573	1290
23	266	1410	2470	e580	e1800	12200	1180	998	4410	1880	517	3500
24	241	1300	2070	e560	e2600	9290	1030	1060	3240	2230	459	3800
25	227	1230	1850	e530	e2000	7180	937	1500	2450	2730	414	3050
26	366	1160	1660	e500	e1800	6430	888	1530	1930	1940	386	2710
27	686	1070	1410	e440	e1600	5820	880	2000	1560	1590	380	2140
28	585	982	1190	e440	e1500	4480	798	2090	1280	3120	401	5930
29	486	900	1160	e520	---	3710	737	2100	1060	2220	349	6220
30	455	864	1030	e480	---	3450	692	1870	921	1740	364	4340
31	431	---	956	e460	---	2980	---	1740	---	1380	364	---
TOTAL	8933	26209	35559	35037	21590	143610	70622	31787	77431	29767	59817	60409
MEAN	288	874	1147	1130	771	4633	2354	1025	2581	960	1930	2014
MAX	686	2500	3680	3140	2600	16000	5800	2100	5560	3120	4910	6220
MIN	93	353	420	440	340	870	692	570	921	255	349	352
CFSM	0.31	0.93	1.22	1.20	0.82	4.91	2.49	1.09	2.73	1.02	2.04	2.13
IN.	0.35	1.03	1.40	1.38	0.85	5.66	2.78	1.25	3.05	1.17	2.36	2.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2003, BY WATER YEAR (WY)

MEAN	657	1239	1473	1275	1653	2888	3209	1838	1153	518	427	445
MAX	4597	4337	3860	4114	5148	6840	9683	3919	6070	2423	4096	4053
(WY)	1991	1978	1974	1996	1981	1964	1993	1960	1972	1972	1994	1975
MIN	46.7	66.3	107	93.7	410	850	1171	446	153	73.4	51.7	30.4
(WY)	1964	1965	1961	1961	1987	1969	1988	1985	1991	1964	1966	1964

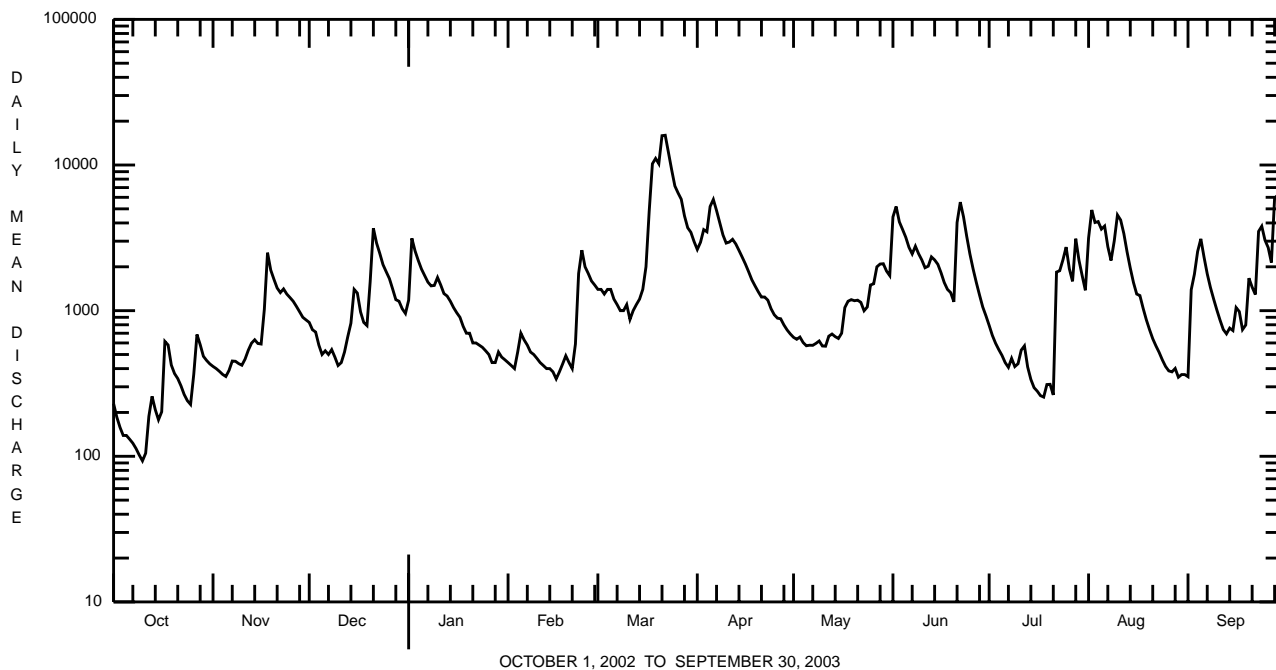
e Estimated.

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1958 - 2003	
ANNUAL TOTAL	418935		600771			
ANNUAL MEAN	1148		1646		1395	
HIGHEST ANNUAL MEAN					2379	1978
LOWEST ANNUAL MEAN					739	1965
HIGHEST DAILY MEAN	12400	May 14	16000	Mar 22	75000	Jun 23 1972
LOWEST DAILY MEAN	39	Sep 14	93	Oct 10	23	Sep 5 1999
ANNUAL SEVEN-DAY MINIMUM	42	Sep 9	115	Oct 5	26	Sep 21 1964
MAXIMUM PEAK FLOW			17300	Mar 22	a 104000	Jun 23 1972
MAXIMUM PEAK STAGE			8.38	Mar 22	b 22.76	Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.22		1.74		1.48	
ANNUAL RUNOFF (INCHES)	16.51		23.67		20.08	
10 PERCENT EXCEEDS	2760		3600		3340	
50 PERCENT EXCEEDS	746		1050		670	
90 PERCENT EXCEEDS	93		366		111	

a From rating curve extended above 22,000 ft³/s on basis of slope-area measurement of peak flow.
b From floodmark.



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01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, 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)	Specific conductance, μ 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 water, unfltrd, recoverable, mg/L (00916)	Magnesium, water, unfltrd, mg/L (00925)
NOV 2002	13...	1028	9813	614	30	12.3	7.4	108	8.5	39	11.2	11.1	2.85
JAN 2003	15...	1045	9813	1090	30	14.7	7.2	84	.1	32	8.67	8.9	2.31
MAR	12...	1330	9813	E1000	30	15.1	6.7	239	.6	32	9.53	9.3	2.21
MAY	14...	1100	9813	662	30	10.7	7.5	99	12.3	36	9.86	10.1	2.67
JUL	17...	0945	9813	254	30	8.5	7.5	121	22.5	44	12.2	12.6	3.02
SEP	17...	1200	9813	957	30	10.0	7.7	94	17.9	36	10.4	10.2	2.50
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	2.8	18	.0	20.2	148	<2	.050	.25	<.040	<.01	<.010	.58	.7
JAN 2003	2.3	13	.0	15.9	54	6	<.020	.50	<.040	<.01	.010	.52	1.1
MAR	2.1	16	.0	13.8	78	<2	<.020	.47	<.040	.01	.011	.55	2.0
MAY	2.7	21	.0	17.6	50	<2	<.020	.05	<.040	.01	.010	.26	1.2
JUL	3.1	25	.0	19.5	84	4	<.020	<.04	<.040	.01	.012	.21	.9
SEP	2.5	23	.0	12.6	50	<2	<.020	.17	<.040	.01	.021	.34	.9

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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 μ m. Samples represent counts per 100 (approximate) subsamples.

Date	8/12/02
Benthic Macroinvertebrate	Count
Mollusca	
Bivalvia (CLAMS)	
Sphaeriidae	
<u>Sphaerium</u> sp	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<u>Acentrella</u> sp	4
<u>Baetis</u> sp	15
<u>Heterocloeon</u> sp	3
Ephemerellidae	
<u>Serratella</u> sp	3
Heptageniidae	
<u>Epeorus</u> sp	1
<u>Leucrocuta</u> sp	12
<u>Stenacron</u> sp	5
<u>Stenonema</u> sp	53
Isonychiidae	
<u>Isonychia</u> sp	19
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
<u>Enallagma</u> sp	1
Gomphidae	
<u>Ophiogomphus</u> sp	1
Plecoptera (STONEFLIES)	
Perlidae	
<u>Acroneuria</u> sp	6
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<u>Corydalis</u> sp	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	14
<u>Hydropsyche</u> sp	12
<u>Macrostemum</u> sp	2
Lepidostomatidae	
<u>Lepidostoma</u> sp	1
Leptoceridae	
<u>Oecetis</u> sp	4
Philopotamidae	
<u>Chimarra</u> sp	5
Polycentropodidae	
<u>Neureclipsis</u> sp	5
Lepidoptera (MOTHS AND BUTTERFLIES)	
Pyralidae	
<u>Petrophila</u> sp	1

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BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	8/12/02
Benthic Macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Stenelmis</u> sp	9
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	15
Total Organisms	194