

CONEWANGO CREEK BASIN

**03015000 CONEWANGO CREEK AT RUSSELL, PA
(Pennsylvania Water-Quality Network Station)**

LOCATION.--Lat 41°56'17", long 79°08'00", Warren County, Hydrologic Unit 05010002, on left bank of highway bridge on SR 957 at Russell, 0.5 mi upstream from Akeley Run, and 8.0 mi upstream from mouth.

DRAINAGE AREA.--816 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October, November 1939, published in WSP 1305.

REVISED RECORD.--WSP 1083: 1936 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,221.77 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 10, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since November 1949 by Chautauqua Lake (station 03013946). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936 reached a stage of 10.9 ft from floodmark, discharge, 14,600 ft³/s.

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	320	428	1780	3820	e882	e1540	4670	528	1150	277	1850	830
2	251	498	1780	3990	e895	e1420	4340	772	1170	265	1370	2230
3	236	625	e1490	3890	954	e1300	3920	1020	969	254	1210	1980
4	310	665	e1450	3730	1820	e1280	3650	851	823	248	1070	1480
5	433	681	e1380	3320	2660	e1360	4870	721	794	333	718	1220
6	374	904	e1340	2780	e2380	e1160	4650	761	859	339	655	1120
7	312	1050	e1310	2310	e2160	e1140	4330	1070	868	309	861	1020
8	263	1020	e1260	2020	e1960	e1210	4000	1140	832	275	829	950
9	231	861	e1190	e1900	e1760	e1380	3700	969	1200	344	851	891
10	219	707	e1100	e1910	e1600	2280	3420	817	1270	506	1210	802
11	217	1070	1370	1790	e1400	1870	3090	722	1550	566	1280	477
12	206	1440	2230	e1620	e1260	e1640	2830	843	2400	460	1230	325
13	201	1280	2740	e1560	e1180	e1550	2510	2000	3620	375	1180	283
14	199	1060	3490	e1550	e1120	1500	2160	3310	3560	319	1020	269
15	193	918	3830	e1520	e1070	e1550	1880	3510	2910	279	864	276
16	201	857	3620	e1350	e1030	2570	1720	3710	2300	374	748	310
17	249	1340	3310	e1300	e977	4040	1600	3590	1810	342	680	319
18	285	2040	2850	e1250	e938	4640	1470	3060	1500	518	637	300
19	389	1960	2480	e1210	e925	4800	1370	2380	1320	398	584	401
20	893	1850	4010	e1180	e925	5110	1320	1850	870	298	429	759
21	1020	1780	4230	e1130	e938	5600	1470	1740	678	1140	331	578
22	762	1800	4030	e1100	1020	6160	1680	1850	637	3150	311	393
23	538	2170	3950	e1050	2120	6530	1540	1650	582	2560	303	838
24	422	2330	3740	e1010	2590	6600	1330	1460	504	2790	269	937
25	360	2340	3240	e1000	e2310	6340	1130	1450	441	2360	249	788
26	382	2170	2630	e961	e2090	6150	1030	1380	393	1920	271	608
27	450	1960	2200	e935	e1840	6070	853	1260	358	2050	419	539
28	480	1770	1900	e908	e1690	5980	718	871	326	3200	371	814
29	437	1620	1700	e908	---	5800	643	681	303	3200	326	974
30	441	1610	1560	e895	---	5500	570	587	288	2980	399	1050
31	438	---	2350	e895	---	5100	---	623	---	2510	558	---
TOTAL	11712	40804	75540	54792	42494	109170	72464	47176	36285	34939	23083	23761
MEAN	378	1360	2437	1767	1518	3522	2415	1522	1210	1127	745	792
MAX	1020	2340	4230	3990	2660	6600	4870	3710	3620	3200	1850	2230
MIN	193	428	1100	895	882	1140	570	528	288	248	249	269
CFSM	0.46	1.67	2.99	2.17	1.86	4.32	2.96	1.86	1.48	1.38	0.91	0.97
IN.	0.53	1.86	3.44	2.50	1.94	4.98	3.30	2.15	1.65	1.59	1.05	1.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	842	1585	2106	2015	2113	3133	2807	1386	887	479	419	585
MAX	3276	4070	4261	4986	5320	6715	6503	4016	2926	2142	2391	3891
(WY)	1991	1986	1978	1998	1976	1945	1947	1943	1986	1986	1977	1977
MIN	66.1	119	111	215	533	1344	353	296	177	108	82.4	79.9
(WY)	1964	1961	1961	1961	1963	1960	1946	1985	1949	1963	1954	1941

e Estimated.

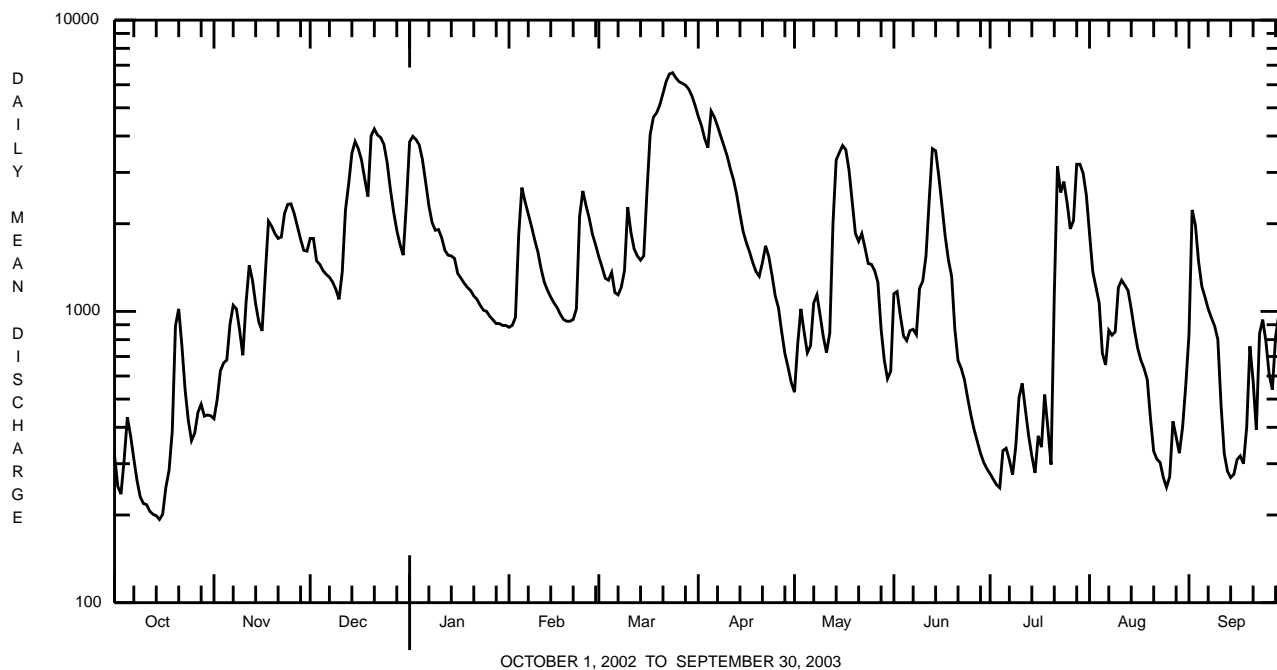
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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	596895		572220			
ANNUAL MEAN	1635		1568		1526	
HIGHEST ANNUAL MEAN					2057	
LOWEST ANNUAL MEAN					915	
HIGHEST DAILY MEAN	7700	Feb 4	6600	Mar 24	14700	Jan 10 1998
LOWEST DAILY MEAN	142	Sep 13	193	Oct 15	57	Oct 17 1960
ANNUAL SEVEN-DAY MINIMUM	149	Sep 8	205	Oct 10	59	Oct 12 1960
MAXIMUM PEAK FLOW			6630	Mar 24	a 14900	Jan 10 1998
MAXIMUM PEAK STAGE			7.92	Mar 24	b 10.88	Jan 10 1998
ANNUAL RUNOFF (CFSM)	2.00		1.92		1.87	
ANNUAL RUNOFF (INCHES)	27.21		26.09		25.41	
10 PERCENT EXCEEDS	3840		3620		3780	
50 PERCENT EXCEEDS	1230		1170		1000	
90 PERCENT EXCEEDS	192		319		162	

a From rating curve extended above 13,000 ft³/s.

b From peak-stage indicator.



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03015000 CONEWANGO CREEK AT RUSSELL, 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 242-289.

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 col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Sam- pling method, code (82398)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfltrd µS/cm 25 degC (00095)	Temper- ature, deg C (00010)	Hard- ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, unfltrd recover -able, mg/L (00916)	Magnes- ium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unfl- fixed end pt, lab, mg/L as CaCO3 (00417)	
Date		Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, 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- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Organic carbon, water, recover -able, µg/L (00680)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, unfltrd recover -able, µg/L (01045)
NOV 2002	18...	16.9	180	30	.040	.72	<.040	.07	.089	1.6	5.5	600	<10	1040
JAN 2003	29...	15.3	204	10	.050	.81	<.040	.02	.031	1.2	3.3	<200	<10	310
MAR	25...	9.9	110	10	<.020	.75	<.040	.02	.032	1.1	3.8	600	<10	940
MAY	19...	10.8	146	12	<.020	.38	<.040	.02	.066	.88	5.0	800	<10	1410
JUL	21...	12.2	196	38	.060	.70	<.040	.07	.090	1.0	5.0	1200	<10	1620
SEP	22...	11.1	176	20	.040	.46	<.040	.04	.097	1.0	5.1	400	<10	820
Date		Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)									
NOV 2002	18...	1.1	80	<50	<10									
JAN 2003	29...	<1.0	70	<50	10									
MAR	25...	<1.0	40	<50	180									
MAY	19...	1.3	90	<50	80									
JUL	21...	1.8	200	<50	<10									
SEP	22...	1.3	120	<50	<10									

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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 µm. Samples represent counts per 100 (approximate) subsamples.

Date	8/20/02
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Dugesiidae	
<u>Dugesia</u> sp	3
Mollusca	
Gastropoda (SNAILS)	
Hydrobiidae	
<u>Amnicola</u> sp	3
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<u>Musiculum</u> sp	11
<u>Sphaerium</u> sp	10
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<u>Acentrella</u> sp	1
<u>Baetis</u> sp	6
Caenidae	
<u>Caenis</u> sp	24
Ephemerellidae	
<u>Serratella</u> sp	3
Heptageniidae	
<u>Stenacron</u> sp	5
<u>Stenonema</u> sp	9
Tricorythidae	
<u>Tricorythodes</u> sp	1
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<u>Corydalus</u> sp	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	56
<u>Hydropsyche</u> sp	19
<u>Macrostemum</u> sp	12
Hydroptilidae	
<u>Hydroptila</u> sp	2
Philopotamidae	
<u>Chimarra</u> sp	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Optioservus</u> sp	1
<u>Stenelmis</u> sp	3
Psephenidae (WATER PENNIES)	
<u>Psephenus</u> sp	1

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BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	8/20/02
Benthic Macroinvertebrate	Count
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	181
Empididae (DANCE FLIES)	
<u>Hemerodromia</u> sp	1
Simuliidae (BLACK FLIES)	
<u>Simulium</u> sp	4
Total Organisms	360