



2004 Water Year
WEST CONEWAGO CREEK BASIN

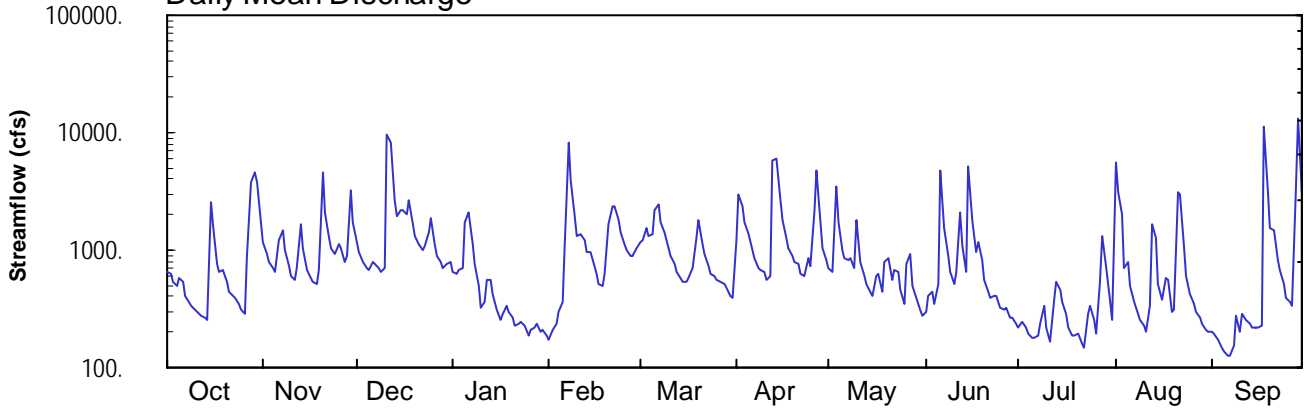
01574000 West Conewago Creek near Manchester, PA

Latitude: 40° 04' 56"
York County

Longitude: 076° 43' 13"
Datum: 263.68 feet

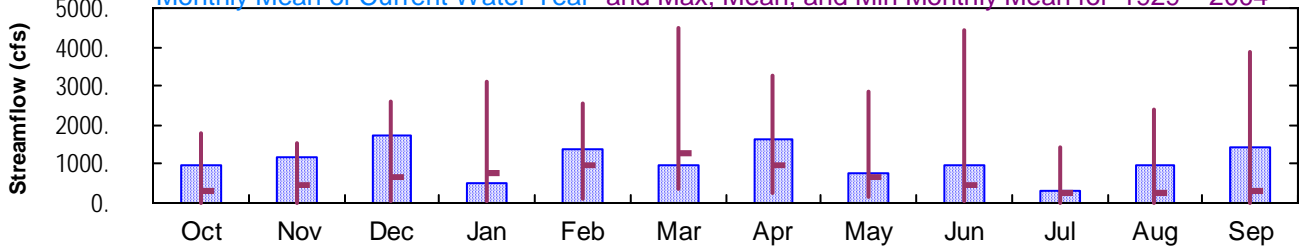
Hydrologic Unit Code: 02050306
Drainage Area: 510. mi²

Daily Mean Discharge

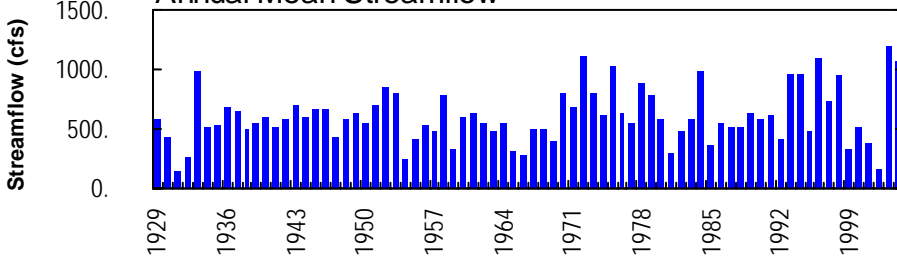


Monthly Statistics

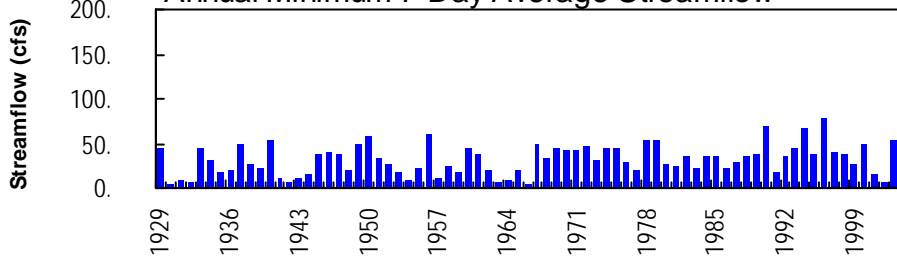
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1929 – 2004



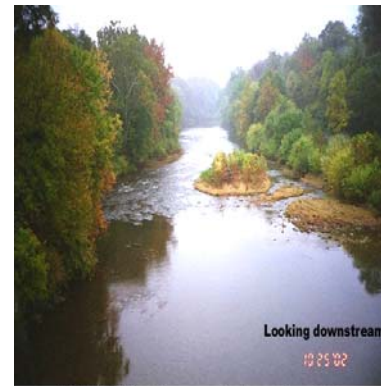
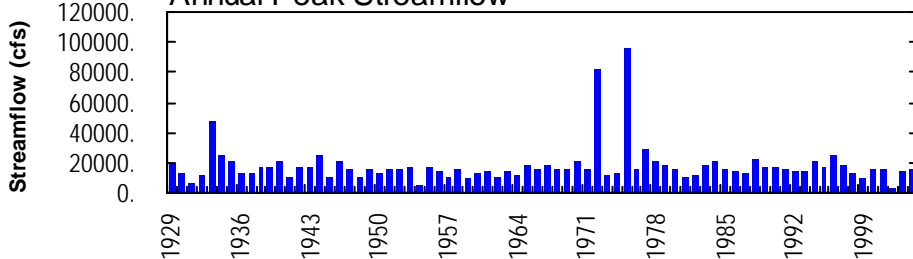
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



01574000-West Conewago Creek ner Manchester

WEST CONEWAGO CREEK BASIN

**01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA
(Pennsylvania Water-Quality Network Station)**

LOCATION.--Lat 40°04'56", long 76°43'13", York County, Hydrologic Unit 02050306, on left bank 500 ft upstream from bridge on State Highway 181, 0.6 mi downstream from Little Conewago Creek, and 1.5 mi north of Manchester.

DRAINAGE AREA.--510 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1931, published as Conewago Creek near Manchester.

REVISED RECORDS.--WSP 741: Drainage area. WSP 1502: 1930, 1936.

GAGE.--Water-stage recorder. Datum of gage is 263.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional slight regulation since October 1959 by Conewago Lake about 13 miles upstream, capacity, 3,570 acre-ft. Gage height record affected by backwater from the Susquehanna River on Sept. 18-21. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 10,800 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Dec. 11	2130	15,800	15.40	Sept. 29	0645	15,400	15.15
Sept. 18	1130	*16,300	*15.73				

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	663	1150	1150	656	e170	1160	1230	698	304	214	5520	206
2	620	939	943	619	e210	1200	3030	653	405	248	3140	194
3	531	805	788	689	e240	1530	2390	3420	433	216	2000	170
4	499	711	692	714	e300	1300	1750	1760	352	196	696	150
5	589	658	688	1720	e360	1360	1380	1020	516	183	801	136
6	525	1240	776	2080	e1030	2170	995	851	4760	178	495	128
7	412	1470	775	1130	8170	2440	842	828	1530	187	366	125
8	363	1020	705	755	3970	1700	697	861	876	233	291	154
9	332	722	661	e500	1980	1430	682	692	659	341	252	275
10	309	607	695	e320	1330	1060	656	1800	522	215	228	202
11	287	560	9610	e360	1390	892	548	787	650	163	203	291
12	275	708	8260	551	1200	748	609	604	2120	375	340	260
13	261	1650	2650	564	964	656	5760	518	1070	530	1660	233
14	255	1050	1930	e420	944	578	5940	449	657	466	1250	222
15	2590	678	2200	e310	809	546	2720	402	5140	363	520	216
16	1660	584	2200	e260	625	537	1810	594	1800	282	380	216
17	775	537	2010	e290	525	586	1250	631	953	214	582	225
18	663	514	2650	e340	490	692	1030	432	1180	185	564	e11100
19	683	687	1650	e300	620	1250	879	789	833	184	297	e3150
20	530	4610	1330	e270	1670	1800	788	843	558	193	306	e1550
21	447	2070	1130	e230	2340	1140	760	548	449	161	3060	e1450
22	411	1310	1000	e240	2330	908	616	690	396	150	2970	811
23	385	1050	1100	e250	1820	720	598	648	411	288	1040	679
24	347	910	1410	e230	1420	634	865	452	415	337	597	518
25	310	1120	1890	e190	1130	595	734	344	324	251	423	398
26	287	1030	1130	e210	1000	559	2190	774	304	194	350	365
27	872	800	892	e220	873	529	4670	928	326	529	301	332
28	3710	897	787	e240	879	523	1770	494	268	1320	265	3160
29	4660	3270	718	e200	1020	477	1030	393	260	737	239	13000
30	3740	1710	756	e210	---	410	820	307	235	359	214	3120
31	1710	---	784	e190	---	390	---	278	---	257	199	---
TOTAL	29701	35067	53960	15258	39809	30520	49039	24488	28706	9749	29549	43036
MEAN	958	1169	1741	492	1373	985	1635	790	957	314	953	1435
MAX	4660	4610	9610	2080	8170	2440	5940	3420	5140	1320	5520	13000
MIN	255	514	661	190	170	390	548	278	235	150	199	125
CFSM	1.88	2.29	3.41	0.97	2.69	1.93	3.21	1.55	1.88	0.62	1.87	2.81
IN.	2.17	2.56	3.94	1.11	2.90	2.23	3.58	1.79	2.09	0.71	2.16	3.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	285	468	685	778	955	1278	986	661	450	254	230	289
MAX	1783	1534	2578	3126	2526	4510	3273	2874	4445	1419	2423	3862
(WY)	1977	1933	1997	1996	1998	1994	1993	1989	1972	1969	1933	1975
MIN	9.71	14.7	43.3	37.7	86.2	345	253	135	52.7	12.2	13.3	12.0
(WY)	1942	1932	1966	1981	1934	1931	1995	1941	1965	1966	1930	1964

e Estimated.

WEST CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	468283		388882			
ANNUAL MEAN	1283		1063		608	
HIGHEST ANNUAL MEAN					1194	2003
LOWEST ANNUAL MEAN					154	1931
HIGHEST DAILY MEAN	10700	Mar 21	13000	Sep 29	64000	Sep 26 1975
LOWEST DAILY MEAN	90	Feb 17	125	Sep 7	2.0	Aug 8 1930
ANNUAL SEVEN-DAY MINIMUM	159	Jul 27	151	Sep 2	3.9	Aug 3 1966
MAXIMUM PEAK FLOW			16300	Sep 18	a 96200	Sep 26 1975
MAXIMUM PEAK STAGE			15.73	Sep 18	b 32.11	Sep 26 1975
INSTANTANEOUS LOW FLOW			123	Sep 7	1.9	Oct 13 1941
ANNUAL RUNOFF (CFSM)	2.52		2.08		1.19	
ANNUAL RUNOFF (INCHES)	34.16		28.37		16.20	
10 PERCENT EXCEEDS	3120		2180		1320	
50 PERCENT EXCEEDS	722		658		253	
90 PERCENT EXCEEDS	229		219		46	

a From rating curve extended above 45,000 ft³/s on basis of slope-area computation at gage height 30.26 ft.
b From floodmark.

WEST CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

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 2003 TO SEPTEMBER 2004

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfl lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfl lab, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
OCT 2003 08...	0830	1028	9813	372	9.8	8.0	8.1	307	310	11.9	130	35.8	9.8
DEC 17...	0900	1028	9813	1790	12.3	7.4	7.6	252	263	2.7	85	23.4	6.4
FEB 2004 25...	0900	1028	9813	1160	12.7	7.5	7.7	226	228	2.0	85	23.8	6.2
APR 12...	0900	1028	9813	519	9.6	8.5	8.5	255	248	9.9	95	26.6	7.0
JUN 29...	0800	1028	9813	273	6.5	8.1	7.6	276	281	21.2	110	31.5	8.1
AUG 04...	0830	1028	9813	712	6.3	7.3	7.3	201	207	23.4	75	19.6	6.3

Date	ANC, wat unfl fixed end pt, lab, mg/L as CaCO3 (00417)	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)	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)
OCT 2003 08...	94	20.8	238	6	<.020	3.06	<.040	.04	.041	3.6	3.5	<200	<10
DEC 17...	59	18.3	188	8	.030	2.62	<.040	.05	.062	2.8	3.3	300	<10
FEB 2004 25...	56	16.4	134	6	.200	2.32	<.040	.11	.140	3.0	4.3	300	<10
APR 12...	66	19.9	154	2	<.020	1.99	<.040	.02	.039	2.4	3.1	<200	<10
JUN 29...	82	18.3	200	10	<.020	2.11	<.040	.05	.058	2.3	3.1	300	<10
AUG 04...	57	14.1	148	36	.080	1.86	<.040	.16	.200	2.4	5.8	1700	<10

Date	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT 2003 08...	160	<1.0	10	<50	<10
DEC 17...	330	<1.0	10	<50	<10
FEB 2004 25...	380	<1.0	20	<50	<10
APR 12...	110	<1.0	20	<50	<10
JUN 29...	250	<1.0	20	<50	<10
AUG 04...	1510	1.4	70	<50	40

WEST CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	09/11/03
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	2
<i>Baetis</i>	9
Caenidae	
<i>Caenis</i>	2
Heptageniidae	
<i>Stenonema</i>	19
Isonychiidae	
<i>Isonychia</i>	1
Potamanthidae	
<i>Anthopotamus</i>	3
Tricorythidae	
<i>Tricorythodes</i>	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	15
<i>Hydropsyche</i>	1
Philopotamidae	
<i>Chimarra</i>	10
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	8
<i>Stenelmis</i>	30
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	4
Diptera (TRUE FLIES)	
Ceratopogonidae (BITING MIDGES)	
<i>Probezzia</i>	2
Chironomidae (MIDGES)	6
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	1
Total Organisms	115
Total Taxa	17