2004 Water Year

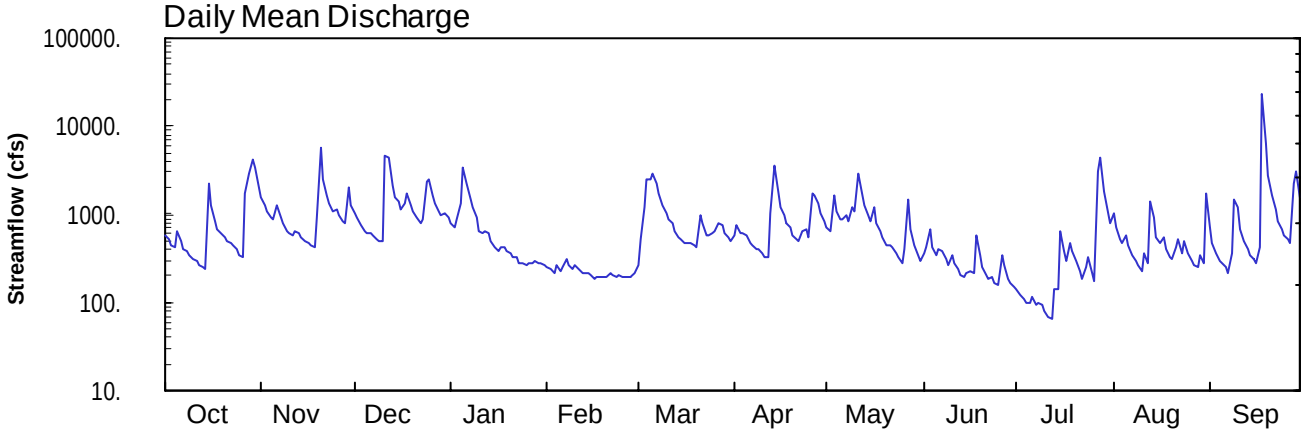
TUNKHANNOCK CREEK BASIN

01534000 Tunkhannock Creek near Tunkhannock, PA

Latitude: 41°33'30" Longitude: 075°53'42" Hydrologic Unit Code: 02050106

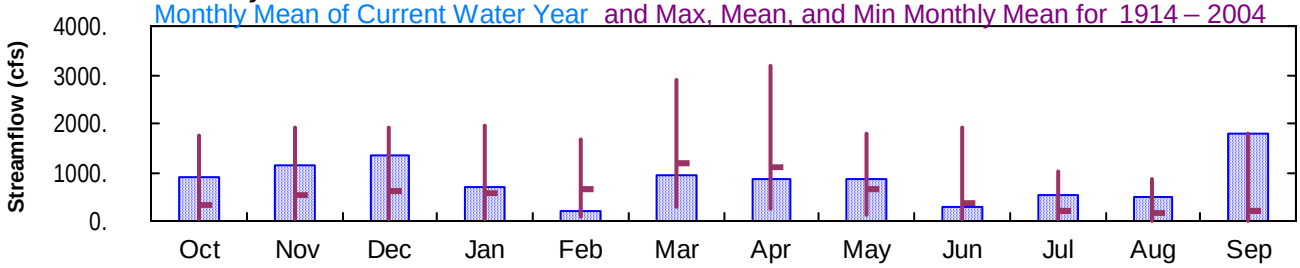
Wyoming County Datum: 610.10 feet Drainage Area: 383. mi²

Daily Mean Discharge

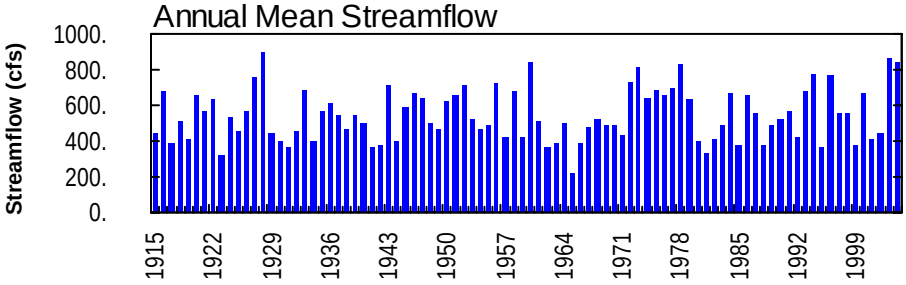


Monthly Statistics

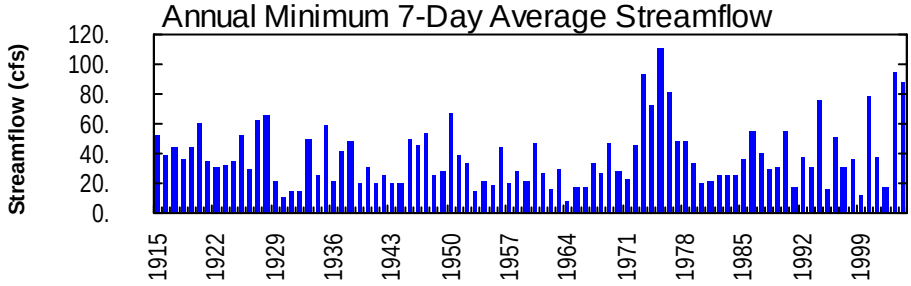
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1914 – 2004



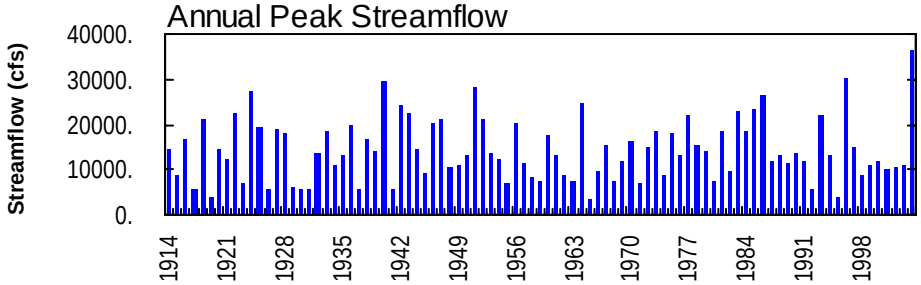
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



TUNKHANNOCK CREEK BASIN

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°33'30", long 75°53'42", Wyoming County, Hydrologic Unit 02050106, on left bank 300 ft upstream from bridge on U.S. Highway 6 at Dixon, 3.0 mi northeast of Tunkhannock, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--383 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1914 to current year. Prior to October 1965, published as "*at Dixon*".

REVISED RECORDS.--WSP 756: Drainage area. WSP 1051: 1921(M), 1932, 1934-35(M), 1936, 1938(M), 1939-40, 1942-44, l945(M). WSP 1302: 1922, 1923(M), 1924-25, 1927-28. WSP 1432: 1919(M), 1920, 1933, 1934(P). WDR PA-85-2: 1954(P), 1955(M), 1956(P), 1957(M), 1958-64(P), 1967-71(P), 1977(M), 1978(P), 1981(M), 1982-84(P). WDR PA-96-2: 1947(M), 1986(M).

GAGE.--Water-stage recorder. Datum of gage is 610.10 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Department of Transportation bench mark). Prior to Aug. 10, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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 5,700 ft^3/s and maximum (*):

Date	Time	Discharge ft^3/s	Gage Height (ft)
Oct. 29	1700	6,980	8.04
Nov. 20	0500	8,420	8.86
Dec. 11	2130	10,200	9.76
July 28	0115	9,950	9.63
Sept. 18	1415	*36,500	*19.69

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	585	1520	1050	786	e250	e260	569	727	362	140	1040	702
2	513	1230	902	722	e240	e530	746	658	419	123	705	460
3	450	1070	745	873	e220	e1190	619	1650	682	110	514	356
4	432	921	639	1330	e270	2530	614	1080	420	97	478	301
5	644	894	607	3390	e230	2500	566	879	339	101	583	272
6	487	1270	613	2230	e250	2950	475	878	401	116	435	247
7	406	924	580	1510	e310	2280	437	994	387	94	340	220
8	374	771	530	1200	e260	1700	412	823	310	97	292	364
9	342	658	494	911	e240	1290	393	1180	270	95	259	1500
10	317	600	483	631	e260	1040	364	1060	339	80	230	1180
11	295	570	4660	619	e240	877	332	2910	279	69	361	675
12	271	635	4360	e640	e210	779	322	1610	235	66	285	496
13	254	618	2130	e600	e220	647	1050	1240	209	140	1380	409
14	236	538	1550	e490	e210	541	3580	951	194	145	903	348
15	2210	494	1380	e430	e200	521	1790	830	212	651	560	308
16	1240	461	1140	e390	e180	480	1230	1180	230	387	469	278
17	818	446	1340	e420	e190	479	977	788	213	291	540	419
18	677	426	1730	e420	e190	464	812	635	569	479	401	23400
19	604	940	1270	e390	e190	440	699	546	349	376	335	6510
20	549	5750	1070	e360	e190	421	586	455	255	295	305	2690
21	492	2450	907	e330	e210	969	525	442	201	227	434	1640
22	469	1680	811	e330	e200	804	483	415	183	185	509	1130
23	444	1310	896	e280	e190	568	631	365	193	253	358	833
24	403	1090	2320	e280	e200	568	693	323	164	334	483	675
25	353	1130	2550	e270	e190	622	540	282	154	212	363	579
26	326	956	1680	e280	e190	643	1760	405	343	171	300	520
27	1760	826	1330	e280	e190	778	1660	1460	266	3010	268	460
28	2890	810	1100	e290	e190	737	1300	670	188	4290	255	2200
29	4240	2000	957	e280	e210	614	1000	453	169	1780	346	3030
30	3340	1260	1000	e280	---	540	830	343	151	1020	278	1590
31	2020	---	946	e260	---	501	---	302	---	802	1710	---
TOTAL	28441	34248	41770	21502	6320	29263	25995	26534	8686	16236	15719	53792
MEAN	917	1142	1347	694	218	944	866	856	290	524	507	1793
MAX	4240	5750	4660	3390	310	2950	3580	2910	682	4290	1710	23400
MIN	236	426	483	260	180	260	322	282	151	66	230	220
CFSM	2.40	2.98	3.52	1.81	0.57	2.46	2.26	2.23	0.76	1.37	1.32	4.68
IN.	2.76	3.33	4.06	2.09	0.61	2.84	2.52	2.58	0.84	1.58	1.53	5.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2004, BY WATER YEAR (WY)

MEAN	323	538	624	561	652	1165	1106	641	358	214	176	223
MAX	1772	1934	1919	1978	1682	2910	3202	1806	1939	1007	841	1793
(WY)	1956	1973	1997	1979	1925	1936	1993	1989	1972	1947	1994	2004
MIN	21.4	25.9	51.6	59.0	76.3	288	235	122	48.4	23.9	19.0	12.4
(WY)	1965	1965	1923	1981	1980	1915	1946	1941	1962	1962	1930	1964

e Estimated.

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1914 - 2004	
ANNUAL TOTAL	343789		308506			
ANNUAL MEAN	942		843		546	
HIGHEST ANNUAL MEAN					897	1928
LOWEST ANNUAL MEAN					220	1965
HIGHEST DAILY MEAN	7640	Mar 21	23400	Sep 18	23400	Sep 18 2004
LOWEST DAILY MEAN	96	Aug 29	66	Jul 12	6.9	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	131	Aug 24	88	Jul 6	7.9	Sep 18 1964
MAXIMUM PEAK FLOW			**a**36500	Sep 18	**ab**36500	Sep 18 2004
MAXIMUM PEAK STAGE			19.69	Sep 18	**c**19.97	Jan 19 1996
INSTANTANEOUS LOW FLOW					6.2	Sep 24 1964
ANNUAL RUNOFF (CFSM)	2.46		2.20		1.43	
ANNUAL RUNOFF (INCHES)	33.39		29.96		19.39	
10 PERCENT EXCEEDS	1990		1680		1250	
50 PERCENT EXCEEDS	585		505		265	
90 PERCENT EXCEEDS	235		200		50	

a From computation of slope-area measurement of peak flow. Rating extended above 14,000 ft^3/s based on slope-area measurement at gage height 15.77 ft.
b At gage height 19.69 ft.
c Gage height affected by backwater.

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, 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. conduct-ance, wat unf lab, µS/cm 25 degC (90095)	Specif. conduct-ance, wat unf µS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover-able, mg/L (00916)	Magnes-ium, water, unfltrd recover-able, mg/L (00927)
OCT 2003													
21...	1140	1028	9813	488	11.6	8.2	7.8	136	131	10.1	43	14.4	1.8
DEC													
03...	1140	1028	9813	713	15.2	8.2	7.6	120	109	.7	39	12.7	1.6
FEB 2004													
18...	1330	1028	9813	E190	17.1	8.2	7.7	185	194	.4	55	18.3	2.2
APR													
14...	1430	1028	9813	3240	10.4	7.0	7.1	117	119	7.3	33	10.5	1.7
JUN													
23...	1400	1028	9813	192	11.8	8.7	7.9	172	163	21.6	52	17.6	2.0
AUG													
05...	0900	1028	9813	594	9.6	7.7	7.0	144	133	20.0	46	15.3	1.9

Date	ANC, wat unf 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, 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, unfltrd mg/L (00680)	Alum-inum, water, unfltrd recover-able, µg/L (01105)	Copper, water, unfltrd recover-able, µg/L (01042)
OCT 2003													
21...	33	9.0	64	<2	<.020	.25	<.040	.01	.017	.43	2.7	<200	<10
DEC													
03...	27	9.7	100	<2	<.020	.50	<.040	.01	.014	.73	2.2	<200	<10
FEB 2004													
18...	33	11.4	124	2	<.020	.93	<.040	.02	.019	1.0	1.5	<200	<10
APR													
14...	19	8.0	76	68	.030	.52	<.040	.02	.100	1.4	4.3	1700	<10
JUN													
23...	41	9.2	106	8	.030	.42	<.040	.02	.027	.52	2.3	<200	<10
AUG													
05...	40	7.8	102	<2	.040	.37	<.040	.02	.026	.55	3.1	<200	<10

Date	Iron, water, unfltrd recover-able, µg/L (01045)	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)
OCT 2003					
21...	70	<1.0	10	<50	10
DEC					
03...	130	<1.0	20	<50	<10
FEB 2004					
18...	80	<1.0	10	<50	<10
APR					
14...	2130	2.6	200	<50	20
JUN					
23...	100	<1.0	20	<50	20
AUG					
05...	240	<1.0	30	<50	<10

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, 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	08/20/03
Benthic Macroinvertebrate	Count
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	16
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	5
Baetis	17
Ephemerellidae	
Serratella	1
Heptageniidae	
Epeorus	2
Stenonema	6
Isonychiidae	
Isonychia	2
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	1
Agnetina	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	3
Hydropsyche	3
Uenoidae	
Neophylax	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	56
Stenelmis	10
Psephenidae (WATER PENNIES)	
Psephenus	3
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	16
Simuliidae (BLACK FLIES)	
Simulium	1
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	146
Total Taxa	19