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)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Oct. 12	0715	5,800	7.37	June 21	0630	6,360	7.68
Oct. 16	2330	6,900	8.06	Sept. 2	1400	6,390	7.70
Mar. 21	0445	10,500	9.91	Sept. 4	0745	8,140	8.74
June 1	1545	*10,900	*10.08	Sept. 23	1430	7,430	8.34

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	203	382	599	1630	234	573	1280	486	6970	313	157	209
2	167	379	516	4160	233	546	1400	1130	3760	277	683	3620
3	141	353	453	2300	233	588	1460	1090	1980	245	345	2180
4	126	330	e360	1750	343	517	1180	738	1590	219	2090	5140
5	117	309	428	1380	689	494	1950	602	1240	203	1500	3520
6	105	403	439	1180	e500	541	1760	560	948	193	1660	1730
7	94	455	e380	1030	e400	e480	1330	502	1050	171	981	1130
8	80	376	396	957	e370	e480	1240	598	1250	202	655	798
9	72	341	340	945	e330	453	1200	532	866	178	723	604
10	71	331	e290	948	e300	402	1150	440	692	188	986	478
11	637	329	361	803	e280	e330	1190	424	603	1310	1190	399
12	4180	394	e800	705	e290	359	1410	851	661	754	2000	340
13	1820	1130	e1000	580	e270	384	1060	686	698	396	986	296
14	1020	804	1920	533	e260	354	869	596	776	284	676	287
15	690	665	2230	494	e260	402	764	503	611	224	507	310
16	2060	614	1550	e420	e250	1190	682	432	447	219	433	1420
17	3940	1580	1100	e380	e260	2950	597	381	362	223	471	690
18	1780	1870	801	e330	334	4140	524	342	402	190	350	451
19	1190	1460	743	e330	304	3900	502	301	399	219	296	384
20	897	1210	e2000	e360	262	3690	455	270	606	177	255	427
21	697	1150	e2600	e320	e240	7640	416	258	5210	147	220	364
22	560	1380	e1800	e270	278	4620	527	254	3970	436	196	302
23	475	1900	e1400	e260	e1600	3190	557	230	2460	705	187	3770
24	405	1300	908	e250	e1400	2230	469	256	1540	507	166	2400
25	369	1080	808	e280	e1200	1760	417	309	1080	371	139	1370
26	792	924	e800	e280	e1000	1540	564	323	812	277	125	1030
27	763	840	835	e240	e900	1430	1070	352	645	234	120	788
28	574	736	706	e230	732	1120	735	276	518	267	108	1050
29	495	653	643	e280	---	1100	609	341	422	215	96	927
30	443	616	581	e260	---	1710	532	289	365	173	160	703
31	412	---	801	e240	---	1480	---	271	---	144	166	---
TOTAL	25375	24294	28588	24125	13752	50593	27899	14623	42933	9661	18627	37117
MEAN	819	810	922	778	491	1632	930	472	1431	312	601	1237
MAX	4180	1900	2600	4160	1600	7640	1950	1130	6970	1310	2090	5140
MIN	71	309	290	230	233	330	416	230	362	144	96	209
CFSM	2.14	2.11	2.41	2.03	1.28	4.26	2.43	1.23	3.74	0.81	1.57	3.23
IN.	2.46	2.36	2.78	2.34	1.34	4.91	2.71	1.42	4.17	0.94	1.81	3.61

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

MEAN	317	531	616	559	657	1167	1109	639	358	211	172	206
MAX	1772	1934	1919	1978	1682	2910	3202	1806	1939	1007	841	1237
(WY)	1956	1973	1997	1979	1925	1936	1993	1989	1972	1947	1994	2003
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

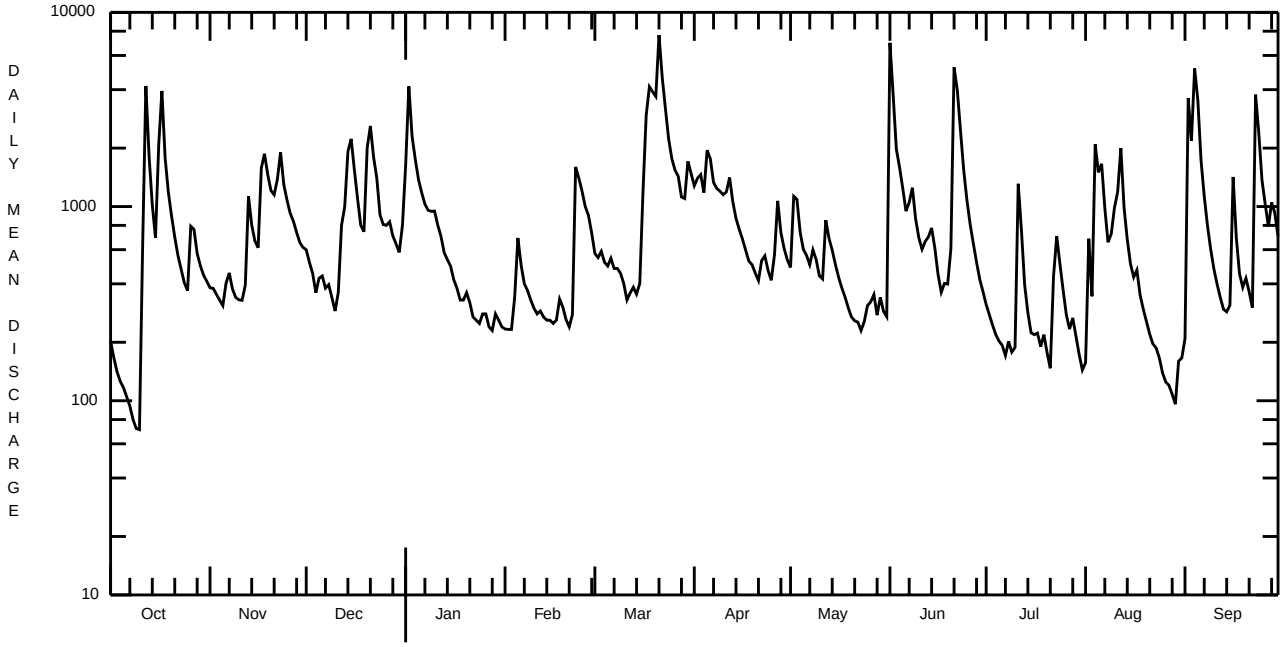
e Estimated.

TUNKHANNOCK CREEK BASIN

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1914 - 2003	
ANNUAL TOTAL	221533		317587			
ANNUAL MEAN	607		870		543	
HIGHEST ANNUAL MEAN					897	1928
LOWEST ANNUAL MEAN					220	1965
HIGHEST DAILY MEAN	6660	May 14	7640	Mar 21	22700	Apr 16 1983
LOWEST DAILY MEAN	15	Aug 21,22	71	Oct 10	6.9	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	17	Aug 16	95	Oct 4	7.9	Sep 18 1964
MAXIMUM PEAK FLOW			10900	Jun 1	**a**30300	Jan 19 1996
MAXIMUM PEAK STAGE			10.08	Jun 1	19.99	Jan 19 1996
INSTANTANEOUS LOW FLOW					6.2	Sep 24 1964
ANNUAL RUNOFF (CFSM)	1.58		2.27		1.42	
ANNUAL RUNOFF (INCHES)	21.52		30.85		19.27	
10 PERCENT EXCEEDS	1460		1790		1240	
50 PERCENT EXCEEDS	397		532		260	
90 PERCENT EXCEEDS	40		219		50	

a From computation of slope-area measurement of peak flow.



OCTOBER 1, 2002 TO SEPTEMBER 30, 2003

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, 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 unfltrd recoverable, mg/L (00916)	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)
NOV 2002													
19...	1000	1028	9813	1480	40	12.3	7.0	124	4.6	38	12.5	1.6	24
JAN 2003													
22...	0930	1028	9813	E270	30	15.1	6.4	164	.0	48	15.6	2.1	28
MAR													
18...	1440	1028	9813	3170	30	12.2	7.5	137	2.7	36	11.9	1.6	18
MAY													
27...	1500	1028	9813	335	30	11.8	8.7	157	15.7	47	15.8	1.9	34
JUL													
28...	1220	1028	9813	272	30	11.0	7.6	163	21.1	53	17.8	2.2	42
SEP													
17...	1230	1028	9813	657	30	10.9	7.8	113	17.3	40	13.3	1.7	31

Date	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)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, unfltrd recoverable, µg/L (01045)
NOV 2002													
19...	11.6	68	26	<.020	.39	<.040	<.01	.018	1.1	3.6	<200	<10	150
JAN 2003													
22...	12.7	6	16	.050	.86	<.040	<.01	.017	1.4	1.9	<200	<10	80
MAR													
18...	9.0	76	30	.030	.78	<.040	.03	.046	1.2	3.2	900	<10	1100
MAY													
27...	9.7	110	<2	<.020	.22	<.040	.01	.024	.41	3.1	<200	<10	130
JUL													
28...	8.9	104	6	<.020	.37	<.040	.02	.031	.47	3.2	<200	<10	120
SEP													
17...	7.8	92	4	<.020	.22	<.040	.02	.033	.56	4.2	<200	<10	240

Date	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, unfltrd recoverable, µg/L (01092)
NOV 2002				
19...	<1.0	20	<50	<10
JAN 2003				
22...	<1.0	20	<50	<10
MAR				
18...	<1.0	160	<50	<10
MAY				
27...	1.3	30	<50	<10
JUL				
28...	<1.0	20	<50	<10
SEP				
17...	<1.0	20	<50	60

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, 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 100 (approximate) subsamples.

Date	8/22/02
Benthic Macroinvertebrate	Count
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	3
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella sp	6
Caenidae	
Caenis sp	1
Ephemerellidae	
Serratella sp	9
Heptageniidae	25
Stenonema sp	11
Isonychiidae	
Isonychia sp	11
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Corydalus sp	9
Trichoptera (CADDISFLIES)	
Apataniidae	
Apatania sp	1
Hydropsychidae	
Cheumatopsyche sp	9
Hydropsyche sp	10
Hydroptilidae	
Hydroptila sp	4
Philopotamidae	
Chimarra sp	20
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus sp	13
Stenelmis sp	7
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	31
Total Organisms	170