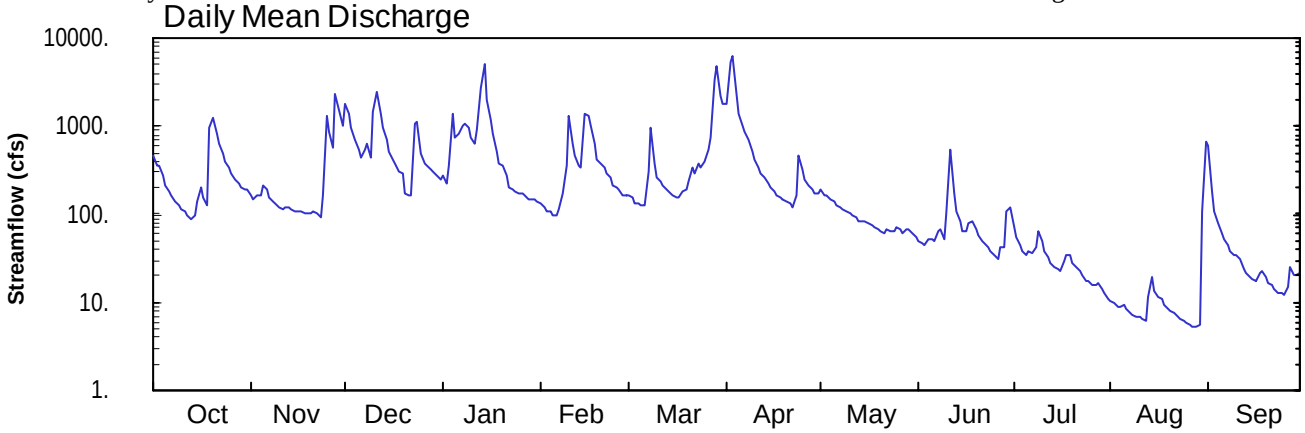
2005 Water Year
TOWANDA CREEK BASIN
01532000 Towanda Creek near Monroeton, PA

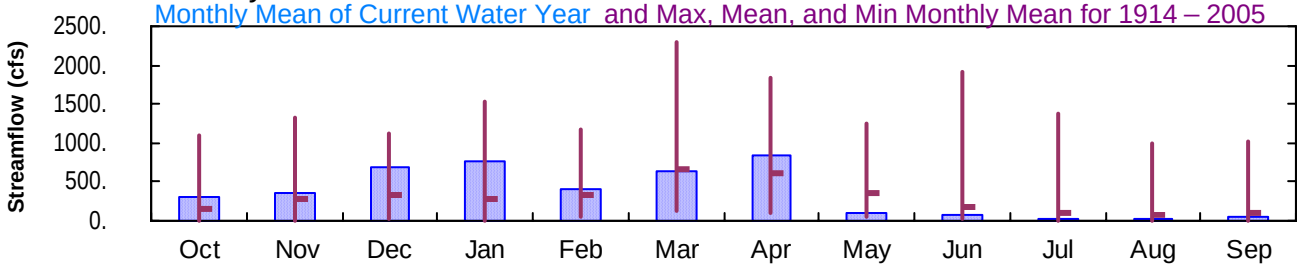
Latitude: 41° 42 ' 25" Longitude: 076° 29 ' 06" Hydrologic Unit Code: 02050106
Bradford County Datum: 765.53 feet Drainage Area: 215. mi²

Daily Mean Discharge

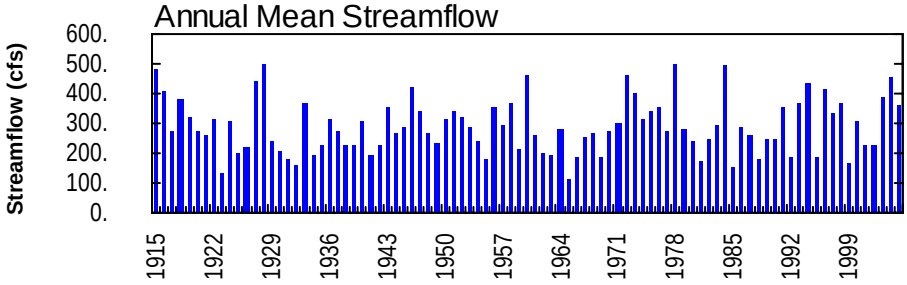


Monthly Statistics

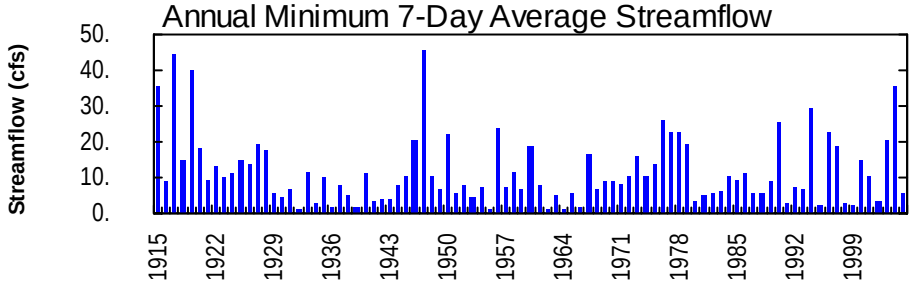
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1914 – 2005



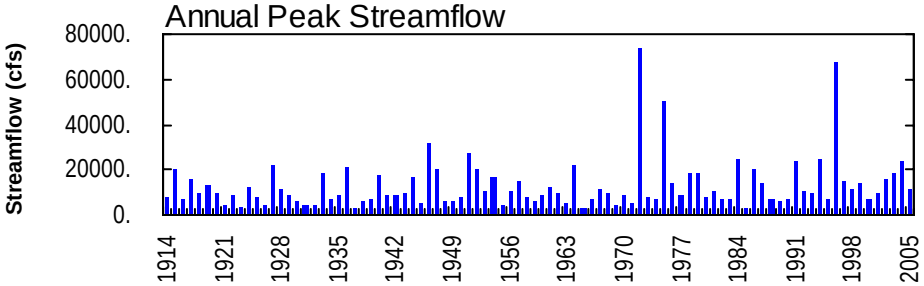
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



TOWANDA CREEK BASIN

01532000 TOWANDA CREEK NEAR MONROETON, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 4l°42'25", long 76°29'06", Bradford County, Hydrologic Unit 02050106, on left bank on Township Route 406, 0.8 mi southwest of Monroeton, and 1.0 mi upstream from South Branch Towanda Creek.

DRAINAGE AREA.--215 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1914 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1051: 1943-44(M). WSP 1302: 1922(M), 1924, 1925-26(M), 1928, 1929(M), 1930-31. WSP 1432: 1921(M), 1932(M), 1933, 1934-35(M), 1936, 1938(M), 1940. WDR PA-78-2: 1972(M). WDR PA-87-2: 1978-79.

GAGE.--Water-stage recorder. Datum of gage is 765.53 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1942, nonrecording gage at present site at datum 8.62 ft higher. Water-stage recorder Oct. 1, 1942, to Sept. 25, 1975, 0.6 mi downstream at datum 11.82 ft lower. Nonrecording gage Sept. 26, 1975, to Aug. 26, 1976, at bridge 0.6 mi downstream at datum 11.82 ft lower. Nonrecording gage Aug. 27, 1976, to Oct. 20, 1977, at present 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 4,300 ft^3/s and maximum (*):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1130	4,830	11.75	Mar. 29	0530	6,420	12.80
Jan. 14	0745	7,760	13.65	Apr. 2	2000	*11,800	*15.81

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	458	166	1830	270	e130	165	1780	187	50	72	10	613
2	358	148	1350	227	e120	157	5450	166	47	54	9.7	186
3	353	168	951	353	e110	137	6350	164	44	45	8.9	109
4	274	163	700	1360	108	134	2300	150	51	38	8.8	79
5	216	217	557	736	e100	126	1410	138	53	34	9.3	62
6	183	187	450	807	e100	127	1040	128	49	39	8.5	51
7	162	157	542	1010	114	307	846	121	65	37	7.6	44
8	142	143	625	1080	e170	952	689	114	67	42	7.1	38
9	129	128	443	945	e360	370	527	106	51	64	7.0	34
10	117	117	1500	735	e1300	262	428	101	100	50	6.8	35
11	106	114	2470	647	647	240	344	96	536	39	6.6	30
12	96	118	1350	909	466	211	288	90	170	32	6.3	25
13	89	123	979	2720	350	193	255	84	107	28	12	22
14	98	111	720	5110	343	174	225	82	83	26	20	20
15	140	106	526	1950	1400	160	199	83	65	24	13	18
16	201	109	422	1160	1340	156	178	81	63	23	12	18
17	157	108	380	839	1010	157	165	76	80	29	11	22
18	123	105	304	503	628	183	156	71	81	34	9.4	23
19	967	103	285	e370	421	192	146	66	68	34	8.5	19
20	1240	101	e170	e350	378	230	137	63	58	28	8.2	17
21	812	108	e160	e270	336	349	131	61	51	25	7.7	15
22	640	101	e160	e200	296	291	122	68	47	22	6.8	14
23	486	94	1090	e190	259	381	162	63	42	21	6.4	13
24	399	164	1100	e180	217	346	467	64	38	18	6.1	13
25	345	1310	e500	e170	205	393	315	70	34	17	5.8	12
26	295	859	e380	e170	190	548	244	66	31	16	5.5	15
27	254	576	e350	e160	167	741	213	61	43	16	5.2	25
28	222	2370	e320	e150	168	3290	193	69	42	16	5.2	21
29	199	1520	e300	e150	---	4800	175	68	110	14	5.5	21
30	195	990	e280	e150	---	2260	176	62	121	13	106	22
31	191	---	251	e140	---	1780	---	55	---	11	658	---
TOTAL	9647	10784	21445	24011	11433	19812	25111	2874	2447	961	1008.9	1636
MEAN	311	359	692	775	408	639	837	92.7	81.6	31.0	32.5	54.5
MAX	1240	2370	2470	5110	1400	4800	6350	187	536	72	658	613
MIN	89	94	160	140	100	126	122	55	31	11	5.2	12
CFSM	1.45	1.67	3.22	3.60	1.90	2.97	3.89	0.43	0.38	0.14	0.15	0.25
IN.	1.67	1.87	3.71	4.15	1.98	3.43	4.34	0.50	0.42	0.17	0.17	0.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2005, BY WATER YEAR (WY)

MEAN	152	277	319	293	342	656	622	365	191	97.9	84.0	96.9
MAX	1092	1326	1117	1542	1169	2287	1838	1262	1922	1376	986	1011
(WY)	1991	1927	1997	1996	1984	1936	1993	1946	1972	1915	1915	2004
MIN	6.46	7.84	16.8	10.1	40.4	135	110	54.5	16.0	7.72	3.71	1.76
(WY)	1965	1931	1932	1931	1931	1965	1946	1926	1991	1955	1966	1964

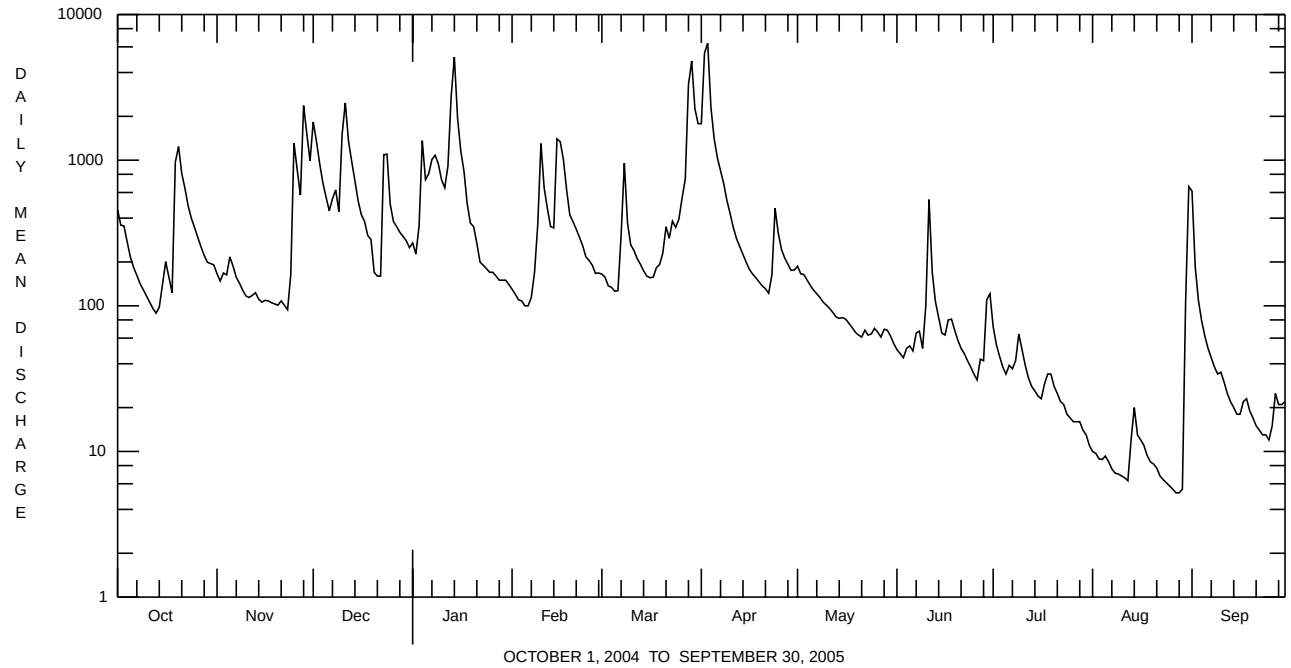
e Estimated.

TOWANDA CREEK BASIN

01532000 TOWANDA CREEK NEAR MONROETON, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1914 - 2005	
ANNUAL TOTAL	158706		131169.9			
ANNUAL MEAN	434		359		290	
HIGHEST ANNUAL MEAN					502	1978
LOWEST ANNUAL MEAN					111	1965
HIGHEST DAILY MEAN	13900	Sep 18	6350	Apr 3	28700	Jun 22 1972
LOWEST DAILY MEAN	31	Jul 4,5	5.2	Aug 27,28	0.70	Sep 21 1932
ANNUAL SEVEN-DAY MINIMUM	36	Jul 1	5.7	Aug 23	0.87	Sep 16 1932
MAXIMUM PEAK FLOW			11800	Apr 2	74000	Jun 22 1972
MAXIMUM PEAK STAGE			15.81	Apr 2	**a**20.86	Jan 19 1996
INSTANTANEOUS LOW FLOW			5.0	Aug 27,28	0.70	Sep 15 1932**b**
ANNUAL RUNOFF (CFSM)	2.02		1.67		1.35	
ANNUAL RUNOFF (INCHES)	27.46		22.70		18.35	
10 PERCENT EXCEEDS	956		951		661	
50 PERCENT EXCEEDS	216		142		118	
90 PERCENT EXCEEDS	69		15		14	

a From floodmark.
b Also Sept. 17, 21, 22, 1932.



01532000 TOWANDA CREEK NEAR MONROETON, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

REMARKS.--Some values for *"dissolved"* parameters exceed values for the corresponding *"total"* parameter. These results are within the limits of analytical precision and methods.

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 2004 TO SEPTEMBER 2005

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)	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)
NOV 2004													
02...	1215	1028	9813	148	30	12.6	8.1	7.4	107	104	10.6	40	11.7
JAN 2005													
25...	1015	1028	9813	E170	30	14.9	7.4	7.0	97	94	.1	37	11.1
MAR													
08...	1100	1028	9813	1020	30	14.9	7.5	7.3	94	119	.2	34	9.6
MAY													
18...	0930	1028	9813	72	30	11.3	7.7	7.7	106	103	13.1	38	11.0
JUL													
06...	1430	1028	9813	39	30	9.0	7.6	7.9	109	110	22.8	41	12.3
SEP													
14...	1000	1028	9813	20	30	9.2	7.5	6.8	102	105	18.8	40	11.9

Date	Magnes-ium, water, unfltrd recover-able, mg/L (00927)	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)
NOV 2004													
02...	2.7	30	11.7	72	<2	<.020	.17	<.040	<.01	.012	.28	1.8	<200
JAN 2005													
25...	2.2	21	14.2	50	<2	.110	.88	<.040	.01	<.010	.90	1.2	<200
MAR													
08...	2.6	22	10.6	68	62	.120	.67	<.040	.04	.114	1.1	3.5	1800
MAY													
18...	2.5	29	13.5	94	2	<.020	.20	<.040	<.01	<.010	.25	--	<200
JUL													
06...	2.5	31	11.8	78	4	.020	.13	<.040	<.01	<.010	.20	--	<200
SEP													
14...	2.5	28	12.7	74	10	.020	.14	<.040	<.01	<.010	.59	--	<200

Date	Copper, water, unfltrd recover-able, µg/L (01042)	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)
NOV 2004						
02...	<10	80	<1.0	20	<50	<10
JAN 2005						
25...	<10	200	<1.0	50	<50	<10
MAR						
08...	<10	3110	2.0	120	<50	10
MAY						
18...	<10	30	<1.0	<10	<50	<10
JUL						
06...	<10	50	<1.0	10	<50	10
SEP						
14...	<10	30	<1.0	20	<50	<10

01532000 TOWANDA CREEK NEAR MONROETON, 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	08/03/04
Benthic macroinvertebrate	Count
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	6
Baetis	10
Caenidae	
Caenis	4
Ephemerellidae	
Serratella	7
Heptageniidae	
Epeorus	1
Leucrocuta	7
Stenacron	3
Stenonema	4
Isonychiidae	
Isonychia	8
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	2
Paragnetina	2
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	5
Hydropsyche	10
Philopotamidae	
Chimarra	3
Psychomyiidae	
Psychomyia	1
Coleoptera (BEETLES)	
Dryopidae	
Helichus	1
Elmidae (RIFFLE BEETLES)	
Optioservus	1
Stenelmis	11
Hydrophilidae	
Helophorus	1
Psephenidae (WATER PENNIES)	
Psephenus	7
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	8
Simuliidae (BLACK FLIES)	
Prosimulium	1
Simulium	3
Total Organisms	107
Total Taxa	24