

POTOMAC RIVER BASIN

TONOLOWAY CREEK BASIN

01613050 TONOLOWAY CREEK NEAR NEEDMORE, PA

LOCATION.--Lat 39°53'54", long 78°07'57", Fulton County, Hydrologic Unit 02070004, on left bank 10 ft downstream from bridge on SR 3008, 0.2 mi upstream from Foster Creek, and 3.5 mi north of Needmore.

DRAINAGE AREA.--10.7 mi².

PERIOD OF RECORD.--Occasional discharge measurements and annual maximums, water years 1963-65. October 1965 to current year.

REVISED RECORDS.--WSP 2103: 1966-68(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 688.94 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 2, 1965, crest-stage gage at same site at datum 2.0 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Nov. 24	1715	163	5.50	July 16	2330	162	5.42
Mar. 28	Unknown	*578	*7.14				

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	17	4.5	66	12	e6.0	e9.5	39	8.0	2.5	0.35	0.27	0.99
2	14	4.1	57	11	e6.5	e9.0	57	7.0	2.3	0.29	0.22	0.43
3	11	4.0	47	12	e7.0	e8.5	59	6.5	2.6	0.24	0.17	0.27
4	8.8	7.6	36	12	e7.5	e8.0	45	6.0	2.7	0.24	0.12	0.18
5	6.9	9.9	29	33	e8.0	e10	33	5.6	2.4	0.27	0.10	0.15
6	5.6	8.1	25	71	8.8	14	26	5.4	2.5	0.65	0.09	0.12
7	4.7	8.0	26	61	9.4	20	22	5.3	3.1	0.40	0.09	0.10
8	4.2	7.1	22	80	11	25	19	5.2	2.1	3.3	0.18	0.08
9	4.0	6.0	24	75	13	25	16	4.9	1.9	1.1	0.55	0.06
10	3.9	5.5	52	55	18	21	13	4.7	2.0	0.57	0.30	0.05
11	3.7	5.5	64	53	e14	20	12	4.4	4.6	0.40	0.21	0.04
12	3.4	14	50	80	e13	18	11	4.1	4.0	0.32	0.30	0.03
13	3.3	16	38	67	14	15	10	3.7	2.3	0.28	0.51	0.02
14	3.9	14	29	85	16	13	9.4	3.8	1.9	0.29	1.1	0.02
15	4.7	14	23	71	21	12	8.5	4.0	1.6	0.35	0.31	0.01
16	4.0	14	20	53	21	11	7.7	3.5	1.4	9.5	1.2	0.01
17	3.3	12	18	39	21	10	7.2	3.2	1.3	14	1.1	0.01
18	2.7	12	16	e30	19	9.9	7.1	3.0	1.1	4.0	0.40	0.01
19	4.6	10	15	e22	e14	9.3	6.8	2.9	0.97	2.5	0.39	0.01
20	4.2	11	e11	e19	16	9.0	6.5	9.0	0.91	1.7	0.75	0.01
21	6.4	9.0	12	e12	18	8.5	6.2	6.0	0.79	1.3	0.44	0.01
22	4.7	7.8	12	e8.0	16	7.9	6.6	4.7	0.91	1.2	0.25	0.00
23	4.1	7.3	22	e5.0	e14	55	16	4.5	0.80	0.90	0.16	0.00
24	4.7	63	18	e5.8	e12	77	11	4.8	0.58	0.57	0.12	0.00
25	4.7	118	e15	e6.5	e11	52	9.8	4.5	0.50	0.96	0.10	0.00
26	4.1	70	e9.0	e7.5	e12	39	8.8	3.9	0.43	0.62	0.08	0.00
27	4.0	48	e12	e6.0	e11	34	8.3	3.4	0.38	0.51	0.13	0.00
28	3.6	92	e11	e4.5	e10	e180	7.8	3.3	0.34	0.90	0.89	0.00
29	3.6	73	e11	e4.8	---	e275	7.5	3.2	0.41	0.37	0.47	0.00
30	6.3	51	e11	e5.2	---	89	8.6	2.9	0.49	0.33	0.38	0.00
31	5.1	---	12	e5.6	---	55	---	2.7	---	0.40	2.3	---
TOTAL	169.2	726.4	813.0	1011.9	368.2	1149.6	505.8	144.1	49.81	48.81	13.68	2.61
MEAN	5.46	24.2	26.2	32.6	13.2	37.1	16.9	4.65	1.66	1.57	0.44	0.09
MAX	17	118	66	85	21	275	59	9.0	4.6	14	2.3	0.99
MIN	2.7	4.0	9.0	4.5	6.0	7.9	6.2	2.7	0.34	0.24	0.08	0.00
CFSM	0.51	2.26	2.45	3.05	1.23	3.47	1.58	0.43	0.16	0.15	0.04	0.01
IN.	0.59	2.53	2.83	3.52	1.28	4.00	1.76	0.50	0.17	0.17	0.05	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2005, BY WATER YEAR (WY)

	6.24	12.1	15.1	14.7	20.8	28.7	24.0	17.2	10.8	4.18	2.33	6.02
MEAN	6.24	12.1	15.1	14.7	20.8	28.7	24.0	17.2	10.8	4.18	2.33	6.02
MAX	37.7	58.2	43.8	62.1	59.5	78.2	72.4	51.5	85.6	39.7	14.8	59.7
(WY)	1991	1998	1997	1996	1986	1994	1993	1988	1972	1989	2004	2004
MIN	0.13	0.26	0.23	0.54	2.00	5.44	5.19	3.53	0.38	0.06	0.00	0.00
(WY)	1992	1999	1999	1981	2002	1990	1968	1976	1991	1966	1966	1991

e Estimated.

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 2005	
ANNUAL TOTAL	7391.6		5003.11			
ANNUAL MEAN	20.2		13.7		13.4	
HIGHEST ANNUAL MEAN					28.3	1996
LOWEST ANNUAL MEAN					4.45	2002
HIGHEST DAILY MEAN	e900	Sep 18	e275	Mar 29	e900	Sep 18 2004
LOWEST DAILY MEAN	1.9	Jul 10	0.00	Sep 22-30	0.00	Jun 25 1966a
ANNUAL SEVEN-DAY MINIMUM	2.3	Jul 1	0.00	Sep 22	0.00	Jul 1 1966
MAXIMUM PEAK FLOW			b578	Mar 28	b4280	Sep 18 2004
MAXIMUM PEAK STAGE			7.14	Mar 28	c11.94	Sep 18 2004
INSTANTANEOUS LOW FLOW			0.00	Sep 21-30	0.00	Jul 18 1991a
ANNUAL RUNOFF (CFSM)	1.89		1.28		1.26	
ANNUAL RUNOFF (INCHES)	25.70		17.39		17.06	
10 PERCENT EXCEEDS	42		39		33	
50 PERCENT EXCEEDS	11		6.0		5.1	
90 PERCENT EXCEEDS	3.4		0.18		0.30	

a No flow many days throughout period of record.

b From rating curve extended above 540 ft³/s on basis of contracted-opening measurement at gage height 9.17 ft., and slope-area measurement of peak flow.

c From floodmark.

e Estimated.

