

## NESHAMINY CREEK BASIN

## 01464720 NORTH BRANCH NESHAMINY CREEK AT CHALFONT, PA

**LOCATION.**--Lat 40°17'17", long 75°12'15", Bucks County, Hydrologic Unit 02040201, on right bank 250 ft upstream from Route 202 bridge in Chalfont, and 0.6 mi upstream from mouth.

**DRAINAGE AREA.**--31.5 mi<sup>2</sup>.

**PERIOD OF RECORD.**--December 1990 to current year.

**REVISED RECORDS.**--WDR PA-99-1: 1993-98(M).

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS.**--No estimated daily discharges. Records fair. Diversion for municipal supply by Forest Park Water Company upstream of gage. Flow regulated by Lake Galena (Peace Valley Reservoir) 1.8 mi upstream, drainage area 15.8 mi<sup>2</sup>, normal pool capacity 6,539 ac-ft. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

**COOPERATION.**--Records of diversion provided by Forest Park Water Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	5.2	3.3	7.7	9.8	7.5	15	21	11	8.6	6.5	12
2	7.3	5.4	5.0	4.2	10	8.0	11	79	13	8.8	18	9.3
3	6.7	5.9	3.5	7.2	9.4	27	11	86	10	7.4	16	7.9
4	6.6	6.6	3.5	5.9	7.3	14	11	22	10	9.1	8.8	7.3
5	7.4	5.2	5.3	7.5	7.5	8.0	9.7	16	10	7.5	8.4	7.4
6	7.7	4.7	6.0	8.5	6.2	8.4	10	13	22	7.3	7.0	6.5
7	5.8	4.1	3.9	7.3	6.6	7.7	10	11	58	6.8	7.9	6.3
8	5.9	4.2	4.0	6.3	6.8	8.0	11	9.8	17	5.9	8.2	5.9
9	5.6	4.3	5.3	6.6	6.4	9.0	23	17	12	9.1	6.8	5.8
10	4.7	4.8	4.1	6.5	7.0	7.5	9.8	12	11	9.6	7.3	7.1
11	5.9	6.6	4.5	12	6.4	7.8	9.0	10	8.9	7.2	6.6	6.4
12	7.2	4.7	4.5	7.7	6.2	8.0	9.7	12	13	7.4	7.4	6.0
13	6.6	5.8	5.4	7.4	6.6	9.6	12	55	21	7.5	8.1	6.3
14	5.6	4.2	5.4	5.7	5.1	9.0	11	178	26	8.0	7.3	6.5
15	5.6	4.6	4.0	6.0	5.1	8.5	9.6	81	22	5.9	8.1	8.7
16	7.3	4.5	4.5	5.8	5.7	9.7	8.7	44	13	7.8	8.6	8.1
17	5.6	5.0	4.2	5.1	6.0	8.4	8.7	27	9.5	7.9	8.2	8.5
18	7.8	6.4	7.4	5.6	4.2	28	9.6	158	10	9.0	7.8	7.0
19	7.3	4.5	4.8	6.1	4.2	22	8.4	107	11	33	7.1	5.0
20	6.9	4.1	4.8	6.7	4.4	111	11	61	8.4	49	8.2	4.5
21	5.6	3.9	5.1	4.9	4.5	69	10	36	9.1	14	6.8	5.8
22	8.1	3.8	5.8	5.9	4.1	27	11	24	8.3	10	8.6	5.2
23	8.0	4.6	6.4	5.6	4.2	18	9.5	17	8.4	6.8	9.1	6.3
24	8.0	4.3	7.6	19	4.6	15	8.7	15	15	7.8	7.2	5.8
25	10	5.9	5.0	12	3.9	12	11	13	7.2	6.3	6.4	4.7
26	9.0	4.6	6.4	10	4.9	13	12	14	6.4	7.6	6.3	8.0
27	6.8	5.0	4.9	8.6	6.2	35	11	16	26	6.5	6.2	46
28	7.6	5.1	4.8	6.9	7.1	18	67	14	17	5.6	6.0	49
29	5.9	4.1	4.8	6.1	---	15	43	13	10	6.5	14	13
30	5.7	3.7	5.9	6.4	---	15	20	14	8.7	6.9	7.3	8.2
31	5.1	---	6.7	9.0	---	14	---	12	---	5.9	6.8	---
TOTAL	209.6	145.8	156.8	230.2	170.4	578.1	422.4	1207.8	432.9	306.7	257.0	294.5
MEAN	6.76	4.86	5.06	7.43	6.09	18.6	14.1	39.0	14.4	9.89	8.29	9.82
MAX	10	6.6	7.6	19	10	111	67	178	58	49	18	49
MIN	4.7	3.7	3.3	4.2	3.9	7.5	8.4	9.8	6.4	5.6	6.0	4.5
(†)	22.5	22.1	21.0	22.1	22.2	21.9	22.7	23.0	24.9	28.7	29.0	24.0
(≠)	-6.2	-12.1	-5.0	-1.5	-2.2	+16.3	+11.1	+4.9	0.0	-3.6	-3.2	-6.0

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

MEAN	28.3	28.6	59.8	61.5	38.3	77.2	49.0	32.9	25.7	18.1	19.7	28.5
MAX	131	108	236	209	74.6	222	121	136	113	55.8	67.5	197
(WY)	1997	1996	1997	1996	1998	1994	1996	1998	2001	1996	1994	1999
MIN	6.76	4.86	5.06	7.43	6.09	18.6	11.8	11.1	5.92	7.65	4.82	5.86
(WY)	2002	2002	2002	2002	2002	2002	1995	1995	1995	1999	1995	1992

† Diversion by Forest Park Water Company, equivalent in cubic feet per second.

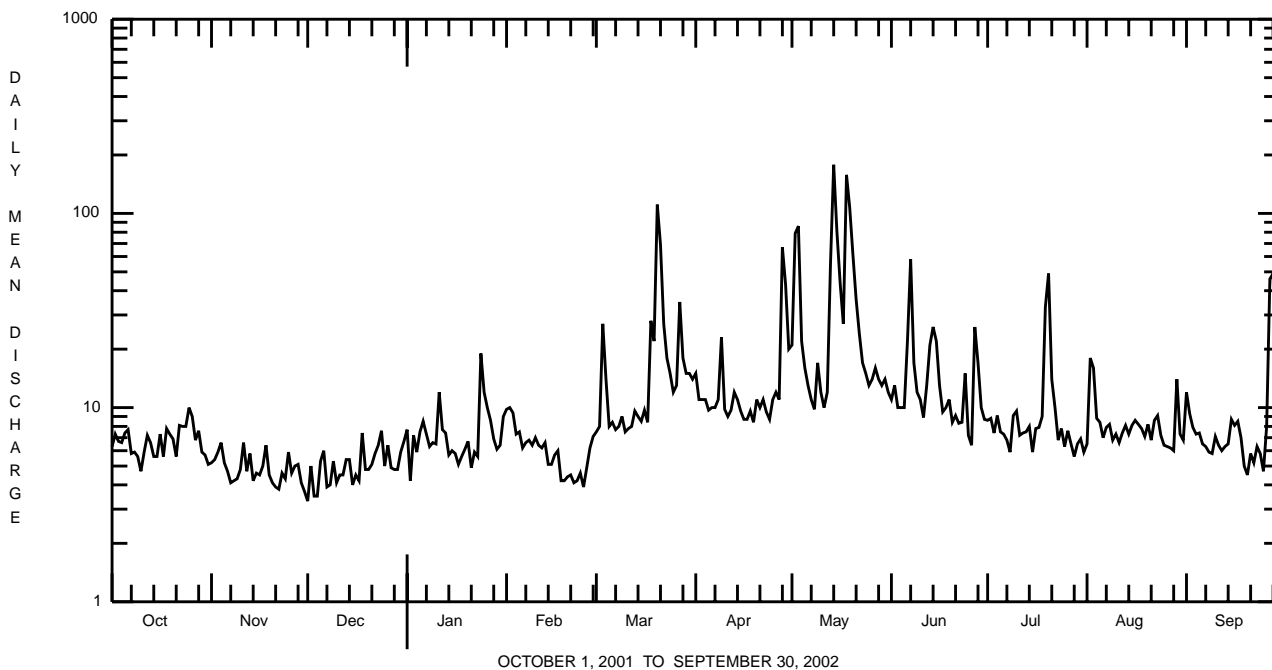
≠ Change in contents, equivalent in cubic feet per second, in Lake Galena.

NESHAMINY CREEK BASIN

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SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002	
ANNUAL TOTAL	11560.9		4412.2			
ANNUAL MEAN	31.7		12.1		39.2	
HIGHEST ANNUAL MEAN					67.0	1996
LOWEST ANNUAL MEAN					12.1	2002
HIGHEST DAILY MEAN	1320	Jun 17	178	May 14	2090	Sep 16 1999
LOWEST DAILY MEAN	3.3	Dec 1	3.3	Dec 1	2.3	Aug 18 1991
ANNUAL SEVEN-DAY MINIMUM	4.0	Nov 28	4.0	Nov 28	3.0	Aug 12 1991
MAXIMUM PEAK FLOW			712	May 2	a6930	Sep 16 1999
MAXIMUM PEAK STAGE			5.61	May 2	11.36	Sep 16 1999
10 PERCENT EXCEEDS	62		18		78	
50 PERCENT EXCEEDS	11		7.5		15	
90 PERCENT EXCEEDS	5.0		4.7		6.1	

a From rating curve extended above 1,550 ft<sup>3</sup>/s on basis of velocity-area study of peak flow at gage height 11.36 ft.



OCTOBER 1, 2001 TO SEPTEMBER 30, 2002