

## 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 sea level, from topographic map.

**REMARKS.**--Records fair except those for estimated daily discharges, which are poor. 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 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	9.0	8.5	12	11	32	31	16	15	8.1	46	14
2	11	31	8.1	11	8.7	28	26	15	15	7.1	35	11
3	10	52	8.0	11	9.5	24	24	15	13	8.1	46	10
4	22	18	8.7	22	12	23	68	13	13	8.0	122	9.9
5	36	14	8.8	43	12	21	36	14	12	7.7	23	6.8
6	18	14	78	e18	12	21	28	15	13	7.6	15	7.0
7	12	15	33	e16	10	19	25	13	12	8.3	15	e6.8
8	11	12	17	16	10	20	25	11	11	8.7	15	5.6
9	11	9.1	14	16	e12	18	47	14	11	8.6	16	6.8
10	62	9.3	19	28	11	17	43	9.3	12	7.2	14	6.3
11	38	9.6	23	32	16	20	30	12	12	9.4	16	8.0
12	19	12	16	19	19	51	21	11	15	8.0	9.9	7.9
13	15	11	15	18	14	26	18	22	15	7.3	9.6	12
14	15	12	131	14	102	21	17	40	12	7.4	23	12
15	13	11	97	13	110	19	18	14	12	8.4	31	45
16	10	8.3	43	14	81	19	24	11	11	7.8	16	15
17	9.6	7.4	30	e10	71	108	47	12	12	7.2	11	14
18	17	8.8	24	e9.5	42	42	59	11	11	8.8	11	11
19	10	8.4	22	11	107	30	31	67	11	9.3	10	18
20	34	8.1	22	12	73	27	25	76	10	7.5	10	15
21	24	10	28	12	57	60	59	43	12	6.9	8.9	14
22	18	8.2	20	e15	59	244	76	31	27	8.9	7.2	13
23	26	7.9	17	9.4	64	95	50	29	13	7.1	9.0	13
24	18	8.1	16	9.9	78	68	37	162	11	7.1	9.6	13
25	13	9.2	14	12	80	50	30	138	9.5	6.6	8.0	13
26	13	10	14	12	69	40	25	76	10	9.9	10	30
27	12	102	13	9.9	50	32	23	44	12	14	15	15
28	12	26	13	e12	72	171	22	29	9.1	11	27	15
29	8.9	14	11	7.5	40	97	19	21	9.0	7.6	10	14
30	9.0	11	10	9.6	---	62	18	16	9.4	14	8.9	14
31	9.3	---	10	14	---	41	---	15	---	24	10	---
TOTAL	551.8	486.4	792.1	468.8	1312.2	1546	1002	1015.3	370.0	277.6	618.1	396.1
MEAN	17.8	16.2	25.6	15.1	45.2	49.9	33.4	32.8	12.3	8.95	19.9	13.2
MAX	62	102	131	43	110	244	76	162	27	24	122	45
MIN	8.9	7.4	8.0	7.5	8.7	17	17	9.3	9.0	6.6	7.2	5.6
(†)	20.1	20.1	20.1	20.1	20.2	20.0	20.2	21.4	22.3	22.7	22.0	21.6
(≠)	-6.0	-11.1	4.6	-9.3	22.8	5.7	-4.2	3.2	-3.0	0.0	-0.6	-7.9

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2000, BY WATER YEAR (WY)

MEAN	32.8	33.5	68.9	70.4	40.0	84.0	53.1	32.8	18.0	19.2	21.8	32.5
MAX	131	108	236	209	74.6	222	121	136	41.5	55.8	67.5	197
(WY)	1997	1996	1997	1996	1998	1994	1996	1998	1998	1996	1994	1999
MIN	7.20	7.23	5.58	15.1	14.2	33.2	11.8	11.1	5.92	7.65	4.82	5.86
(WY)	1992	1999	1999	2000	1992	1997	1995	1995	1999	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.

e Estimated.

NESHAMINY CREEK BASIN

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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1991 - 2000	
ANNUAL TOTAL	13436.0		8836.4		42.7	
ANNUAL MEAN	36.8		24.1		67.0	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					1995	
HIGHEST DAILY MEAN	2090	Sep 16	244	Mar 22	2090	Sep 16 1999
LOWEST DAILY MEAN	5.1	Jan 2	5.6	Sep 8	2.3	Aug 18 1991
ANNUAL SEVEN-DAY MINIMUM	6.8	Aug 2	6.8	Sep 5	3.0	Aug 12 1991
INSTANTANEOUS PEAK FLOW			660	Aug 4	a6930	Sep 16 1999
INSTANTANEOUS PEAK STAGE			5.52	Aug 4	11.36	Sep 16 1999
INSTANTANEOUS LOW FLOW			.39	Sep 9	.39	Sep 9 2000
10 PERCENT EXCEEDS	43		54		86	
50 PERCENT EXCEEDS	13		14		16	
90 PERCENT EXCEEDS	7.5		8.3		6.2	

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.

