

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.--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 acre-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 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	20	17	221	10	25	65	14	37	16	67	13
2	7.4	16	15	311	11	174	53	13	30	16	69	28
3	7.4	13	15	168	11	204	40	16	19	16	24	28
4	6.4	11	13	153	14	98	33	12	695	16	18	35
5	6.8	12	16	102	13	207	31	11	519	18	55	28
6	6.4	33	15	80	9.9	361	28	12	198	15	138	17
7	6.4	20	14	66	11	190	27	15	212	15	68	15
8	6.6	14	14	56	10	131	32	14	222	15	68	13
9	6.7	13	13	61	12	230	86	12	118	15	132	12
10	8.4	12	11	52	9.9	185	114	13	75	12	325	11
11	78	12	87	39	9.6	99	128	13	50	13	135	10
12	59	44	206	29	9.4	82	171	11	40	11	83	11
13	22	62	158	24	10	97	112	10	47	12	46	23
14	13	27	390	21	8.7	95	72	11	69	11	28	83
15	10	20	202	18	8.2	75	50	11	38	9.7	17	114
16	25	28	115	17	8.6	75	39	11	25	9.2	16	114
17	30	248	72	17	e8.5	85	31	12	22	9.4	17	51
18	15	172	49	18	e8.0	73	26	13	51	10	18	34
19	11	75	38	15	e7.5	57	24	11	38	9.1	15	124
20	9.7	52	127	16	e7.5	115	23	13	473	7.7	13	47
21	8.8	39	123	15	e7.0	286	21	12	545	11	16	28
22	8.5	51	77	18	219	147	24	11	207	62	13	23
23	8.0	57	54	17	401	95	20	12	114	56	12	223
24	7.1	36	40	16	162	65	18	15	69	74	10	94
25	7.5	26	88	12	78	49	16	15	44	36	9.8	51
26	37	21	93	12	50	43	22	183	30	21	11	36
27	21	30	65	11	34	40	21	82	23	13	14	35
28	13	25	52	13	29	28	14	51	23	20	11	419
29	12	20	44	11	---	59	13	32	21	12	10	156
30	33	18	37	9.9	---	108	13	22	17	9.5	10	83
31	40	---	48	10	---	96	---	18	---	9.3	11	---
TOTAL	537.5	1227	2308	1628.9	1177.8	3674	1367	701	4071	579.9	1479.8	1959
MEAN	17.3	40.9	74.5	52.5	42.1	119	45.6	22.6	136	18.7	47.7	65.3
MAX	78	248	390	311	401	361	171	183	695	74	325	419
MIN	6.4	11	11	9.9	7.0	25	13	10	17	7.7	9.8	10
(†)	23.1	22.8	22.0	22.2	22.2	22.2	23.1	23.5	24.2	27.2	24.7	23.0
(≠)	+6.0	+11.8	+0.5	-12.8	+9.7	+6.8	-8.2	+4.4	-2.7	+0.3	-3.1	+9.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2003, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	27.4	29.6	61.0	60.8	38.6	80.4	48.8	32.1	34.1	18.1	21.8	31.3	
MAX	131	108	236	209	74.6	222	121	136	136	55.8	67.5	197	
(WY)	1997	1996	1997	1996	1998	1994	1996	1998	2003	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.

e Estimated.

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01464720 NORTH BRANCH NESHAMINY CREEK AT CHALFONT, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1991 - 2003		
ANNUAL TOTAL	7972.5			20710.9					
ANNUAL MEAN	21.8			56.7			40.7		
HIGHEST ANNUAL MEAN							67.0		
LOWEST ANNUAL MEAN							12.1		
HIGHEST DAILY MEAN	390	Dec 14		695	Jun 4		2090	Sep 16 1999	
LOWEST DAILY MEAN	3.9	Feb 25		6.4	Oct 1 <sup>a</sup>		2.3	Aug 18 1991	
ANNUAL SEVEN-DAY MINIMUM	4.3	Feb 19		6.7	Oct 3		3.0	Aug 12 1991	
MAXIMUM PEAK FLOW				1540	Sep 28		<sup>b</sup> 6930	Sep 16 1999	
MAXIMUM PEAK STAGE				6.69	Sep 28		11.36	Sep 16 1999	
10 PERCENT EXCEEDS	50			142			82		
50 PERCENT EXCEEDS	9.7			23			15		
90 PERCENT EXCEEDS	6.0			9.9			6.3		

<sup>a</sup> Also Oct. 4, 6, 7.

<sup>b</sup> 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.

