

## NESHAMINY CREEK BASIN

01464907 LITTLE NESHAMINY CREEK AT VALLEY ROAD NEAR NESHAMINY, PA  
(National Water-Quality Assessment Station)

**LOCATION.**--Lat 40°13'45", long 75°07'12", Bucks County, Hydrologic Unit 02040201, on left bank just upstream from bridge on Valley Road, 6.8 mi upstream from confluence with Neshaminy Creek, 3.0 mi downstream from Bradford Dam, 2.0 mi downstream from Park Creek, and 1.1 mi east of Neshaminy.

**DRAINAGE AREA.**--26.8 mi<sup>2</sup>.

**PERIOD OF RECORD.**--November 1998 to current year.

**REVISED RECORDS.**--WDR PA-01-1: 1999, 2000 (P).

**GAGE.**--Water stage recorder and crest-stage gage. Datum of gage is 190.42 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 1,600 ft<sup>3</sup>/s and maximum(\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
June 7	0100	*1,590	*5.88	(No peaks above base discharge.)			

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	5.8	2.7	4.1	3.2	27	4.5	25	33	13	7.0	0.87	30
2	5.1	2.1	4.1	2.9	23	5.1	17	50	8.0	5.9	11	25
3	3.8	3.1	4.0	2.9	14	156	15	38	6.9	5.0	32	9.3
4	3.2	3.2	3.9	2.9	12	30	15	19	6.7	3.8	6.2	6.0
5	2.6	3.7	3.8	2.6	9.8	17	12	15	6.7	3.2	3.3	3.9
6	3.2	2.2	3.7	12	8.9	14	12	13	136	2.3	2.7	3.0
7	3.5	1.8	4.4	40	9.4	11	10	12	295	2.4	2.1	e2.4
8	2.7	1.7	7.1	16	9.6	9.2	9.9	10	30	2.7	1.5	e1.6
9	2.5	1.3	31	9.7	8.5	8.3	9.7	70	17	2.6	1.2	e1.1
10	2.4	1.2	9.6	9.2	8.1	9.6	16	29	14	7.2	1.2	1.5
11	2.2	1.2	6.0	75	9.6	8.0	6.0	16	12	3.1	0.96	0.95
12	2.2	1.2	4.4	38	7.9	7.4	8.0	22	17	2.2	0.97	1.7
13	2.2	2.5	4.5	17	7.2	12	10	139	17	1.8	0.98	2.3
14	1.9	1.6	8.7	12	6.4	14	10	146	66	2.0	1.3	2.6
15	6.0	1.9	13	9.8	7.0	10	10	35	38	2.1	1.2	4.3
16	4.7	2.0	7.0	8.2	6.7	9.0	9.5	22	20	2.0	1.2	12
17	3.3	1.8	5.9	7.0	6.7	8.3	8.4	17	14	2.0	1.2	5.9
18	3.7	2.0	20	6.2	6.1	91	7.7	489	12	2.0	1.4	3.6
19	3.9	2.0	12	5.8	5.6	48	7.3	74	17	10	1.3	2.7
20	3.2	2.5	7.6	6.7	5.4	321	8.4	36	13	7.4	2.9	3.0
21	3.3	1.7	5.8	5.6	10	105	8.0	27	9.2	2.6	1.8	e2.4
22	2.9	1.7	4.8	6.3	7.9	40	10	21	7.7	2.1	2.0	e2.0
23	2.4	1.3	4.5	7.5	6.7	26	10	18	6.8	5.7	3.3	e1.8
24	2.3	1.2	35	103	6.3	21	8.1	15	9.2	7.4	2.6	1.8
25	2.6	3.7	14	49	6.5	18	11	12	7.8	3.2	2.7	1.7
26	3.0	26	8.5	20	6.1	17	15	16	6.0	2.1	2.4	7.1
27	e3.7	11	6.4	14	5.8	82	9.6	14	20	1.7	1.9	95
28	e2.6	5.0	5.5	11	5.0	29	97	12	64	1.7	1.9	78
29	e3.3	4.5	4.9	9.4	---	21	42	11	13	1.8	52	16
30	2.9	4.2	4.2	9.4	---	18	24	9.7	8.7	1.4	15	8.8
31	2.8	---	3.6	29	---	18	---	9.1	---	1.1	6.6	---
TOTAL	99.9	102.0	262.0	551.3	253.2	1188.4	461.6	1449.8	911.7	107.5	167.68	337.45
MEAN	3.223	3.400	8.452	17.78	9.043	38.34	15.39	46.77	30.39	3.468	5.409	11.25
MAX	6.0	26	35	103	27	321	97	489	295	10	52	95
MIN	1.9	1.2	3.6	2.6	5.0	4.5	6.0	9.1	6.0	1.1	0.87	0.95
CFSM	0.12	0.13	0.32	0.66	0.34	1.43	0.57	1.75	1.13	0.13	0.20	0.42
IN.	0.14	0.14	0.36	0.77	0.35	1.65	0.64	2.01	1.27	0.15	0.23	0.47

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	1999	2000	2001	2002	1999	2000	2001	2002	1999	2000	2001	2002
MEAN	14.26	16.39	27.70	40.58	41.78	71.30	32.75	32.73	65.18	13.00	22.78	59.96
MAX	23.6	25.5	56.7	71.2	68.4	93.1	44.7	46.8	211	34.2	47.5	174
(WY)	2000	2000	2001	1999	2001	2001	2000	2000	2001	2000	2000	1999
MIN	3.22	4.07	2.47	17.8	9.04	38.3	15.4	13.3	3.06	1.40	5.41	11.2
(WY)	2002	2002	1999	2002	2002	2002	2002	1999	1999	1999	2002	2002

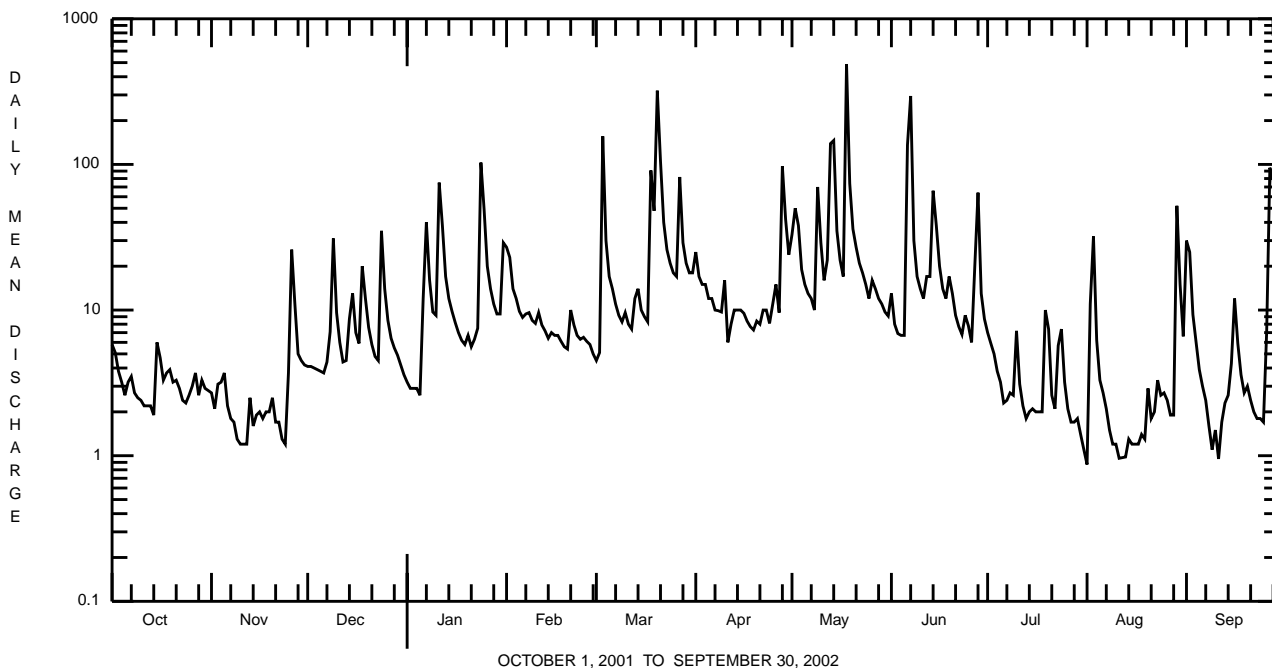
e Estimated.

NESHAMINY CREEK BASIN

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SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	16772.7		5892.53		35.96	
ANNUAL MEAN	45.95		16.14		52.5	
HIGHEST ANNUAL MEAN					2001	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	2170	Jun 17	489	May 18	2830	Sep 16 1999
LOWEST DAILY MEAN	1.2	Nov 10-12,24	0.87	Aug 1	0.24	Aug 2 1999
ANNUAL SEVEN-DAY MINIMUM	1.5	Nov 6	1.1	Aug 9	0.27	Aug 1 1999
MAXIMUM PEAK FLOW			a1590	Jun 7	a11300	Jun 16 2001
MAXIMUM PEAK STAGE			5.88	Jun 7	b14.57	Jun 16 2001
INSTANTANEOUS LOW FLOW			0.75	Aug 1c	0.15	Aug 8 1999
ANNUAL RUNOFF (CFSM)	1.71		0.60		1.34	
ANNUAL RUNOFF (INCHES)	23.28		8.18		18.23	
10 PERCENT EXCEEDS	70		30		68	
50 PERCENT EXCEEDS	14		7.0		13	
90 PERCENT EXCEEDS	2.4		1.8		2.9	

- a From rating curve extended above 758 ft<sup>3</sup>/s on basis of contracted-opening measurements at gage height 11.68 and at peak flow.
- b From outside high-water mark.
- c Also Aug. 2, 15, Sept. 11.



## NESHAMINY CREEK BASIN

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## WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1998 to current year.

REMARKS.--These samples were collected as part of the Delaware River Basin National Water-Quality Assessment Program (DELR NAWQA). For the definition of the type of quality-control data listed under SAMPLE TYPE refer to "Quality-Control Data" in the "Introduction".

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	ALKA-LINITY WAT DIS FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 01...	1120	2.8	764	79	9.3	7.6	879	19.5	8.4	172	210	122	84.9
DEC 07...	0900	4.3	755	72	7.9	7.2	832	16.0	11.0	144	179	110	80.4
JAN 09...	0910	9.8	752	99	14.0	7.6	622	1.0	.5	99	121	96.8	53.0
MAR 07...	0850	11	762	99	12.8	7.6	567	--	4.5	97	119	82.9	47.5
APR 04...	1230	15	767	178	18.7	8.8	517	--	13.5	107	126	72.0	46.0
MAY 08...	1020	10	760	93	8.6	7.5	544	22.5	19.0	117	142	66.8	47.3
JUN 13...	0920	16	753	77	6.8	7.6	497	19.5	21.0	105	128	51.7	43.2
JUL 10...	1230	7.4	756	141	11.3	8.3	624	--	26.0	116	138	83.4	47.0
SEP 05...	1330	3.9	758	105	9.0	7.9	449	--	22.5	97	118	46.2	41.9

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV 01...	.61	<.04	1.85	.009	.17	.20	.0	.2
DEC 07...	.85	E.02	3.77	.027	.16	.22	.04	3.7
JAN 09...	.64	.07	1.57	.023	.06	.112	.17	6.4
MAR 07...	.45	<.04	1.58	E.007	.03	.094	.24	8.1
APR 04...	.46	<.04	.66	.012	.03	.069	.15	3.6
MAY 08...	.57	<.04	.98	.028	.05	.119	.14	5.3
JUN 13...	.41	E.03	1.50	.011	.09	.136	.42	9.8
JUL 10...	.58	<.04	1.14	.014	.11	.157	.13	6.4
SEP 05...	.50	<.04	1.00	E.005	.08	.137	.06	5.7

## NESHAMINY CREEK BASIN

## 01464907 LITTLE NESHAMINY CREEK AT VALLEY ROAD NEAR NESHAMINY, PA--Continued

## WATER-COLUMN PESTICIDE ANALYSES

REMARKS.--Selected samples were analyzed for pesticides with laboratory schedule 2001 (listed in its entirety, with laboratory reporting levels, on page 179). Only pesticides identified by the analyses in one or more surface-water samples are listed in the following table.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	SAMPLE TYPE	ACETO- CHLOR, WATER, FLTRD REC (µG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (µG/L) (46342)	ALPHA BHC DIS- SOLVED (µG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (µG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 µ GF, REC (µG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 µ GF, REC (µG/L) (82680)	CHLOR- PYRIFOS DIS- SOLVED (µG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (µG/L) (04041)	DCPA WATER FLTRD 0.7 µ GF, REC (µG/L) (82682)		
NOV 01...	1120	ENVIRONMENTAL	<.004	<.002	<.005	.019	<.010	<.041	<.005	<.018	<.003		
DEC 07...	0900	ENVIRONMENTAL	<.004	<.002	<.005	.021	<.010	<.041	<.005	<.018	<.003		
JAN 09...	0910	ENVIRONMENTAL	<.006	<.004	<.005	.015	<.010	E.005	<.005	<.018	<.003		
MAR 07...	0850	ENVIRONMENTAL	<.006	<.004	<.005	.011	<.010	E.008	<.005	<.018	<.003		
APR 04...	1230	ENVIRONMENTAL	<.006	<.004	<.005	.014	<.010	<.041	<.005	<.018	<.003		
MAY 08...	1020	ENVIRONMENTAL	<.006	<.004	<.005	.032	<.010	E.003	<.005	<.018	<.003		
MAY 08...	1021	SPLIT REPLICATE	<.006	<.004	<.005	.032	<.010	E.003	<.005	<.018	<.003		
JUN 13...	0920	ENVIRONMENTAL	.016	<.004	<.005	.509	<.010	E.017	<.005	<.018	<.003		
JUL 10...	1230	ENVIRONMENTAL	<.006	<.004	<.005	.168	<.010	E.006	<.005	<.018	<.003		
SEP 05...	1330	ENVIRONMENTAL	<.006	<.004	<.005	.019	<.010	E.011	<.005	<.018	<.003		
DATE	DEETHYL ATRA- ZINE, WATER, DISS, REC (µG/L) (04040)	DI- AZINON, DIS- SOLVED (µG/L) (39572)	EPTC WATER FLTRD 0.7 µ GF, REC (µG/L) (82668)	LINDANE DIS- SOLVED (µG/L) (39341)	LIN- URON WATER FLTRD 0.7 µ GF, REC (µG/L) (82666)	MALA- THION, DIS- SOLVED (µG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 µ GF, REC (µG/L) (82686)	METO- LACHLOR WATER DISSOLV (µG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (µG/L) (82630)	NAPROP- AMIDE WATER FLTRD 0.7 µ GF, REC (µG/L) (82684)	PENDI- METH- ALIN WAT FLT 0.7 µ GF, REC (µG/L) (82683)	PRO- METON, WATER, DISS, REC (µG/L) (04037)	PRO- PANIL WATER FLTRD 0.7 µ GF, REC (µG/L) (82679)
NOV 01...	E.018	<.005	<.002	<.004	<.035	<.027	<.050	E.004	<.006	<.007	<.010	<.01	<.011
DEC 07...	E.018	<.005	<.002	<.004	<.035	<.027	<.050	<.013	<.006	<.007	<.010	<.01	<.011
JAN 09...	E.009	<.005	<.006	<.004	<.035	<.027	<.050	E.006	<.006	<.007	<.022	.02	<.011
MAR 07...	E.007	E.004	<.002	<.004	<.035	<.027	<.050	E.008	<.006	<.007	<.022	<.02	<.011
APR 04...	E.007	.005	<.002	<.004	<.035	<.027	<.050	E.010	<.006	<.007	<.022	E.01	<.011
MAY 08...	E.018	.011	<.002	<.004	<.035	<.027	<.050	.013	<.006	<.007	<.022	.02	<.011
MAY 08...	E.018	.012	<.002	<.004	<.035	<.027	<.050	.013	<.006	<.007	<.022	.02	<.011
JUN 13...	E.038	.015	<.002	<.004	<.035	<.027	<.050	.132	<.006	<.007	<.022	.03	<.011
JUL 10...	E.035	.010	<.002	<.004	<.035	<.027	<.050	.038	<.006	<.007	<.022	.12	<.011
SEP 05...	E.021	.015	<.002	<.004	<.035	<.027	<.050	E.012	<.006	<.007	<.022	.10	<.011

## NESHAMINY CREEK BASIN

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	SI- MAZINE, WATER, DISS, REC ( $\mu\text{G/L}$ ) (04035)	TEBU- THIURON WATER FLTRD 0.7 $\mu$ GF, REC ( $\mu\text{G/L}$ ) (82670)	TER- BACIL WATER FLTRD 0.7 $\mu$ GF, REC ( $\mu\text{G/L}$ ) (82665)
NOV 01...	<.011	<.02	<.034
DEC 07...	<.011	<.02	<.034
JAN 09...	<.005	<.02	<.034
MAR 07...	<.005	<.02	<.034
APR 04...	E.005	<.02	<.034
MAY 08...	.008	<.02	<.034
08...	.007	<.02	<.034
JUN 13...	.232	.02	<.034
JUL 10...	.081	<.02	<.034
SEP 05...	.006	<.02	<.034