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^2.

WATER-DISCHARGE RECORDS

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 2,100 ft^3/s (revised) and maximum(*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)
Dec. 11	0930	4,010	8.71
Feb. 6	1600	2,200	6.63
July 23	2115	2,180	6.61
Aug. 1	1215	2,270	6.72
Sept. 28	2300	*5,440	*10.07

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	48	44	30	e18	18	60	32	21	5.1	636	14
2	20	39	36	30	e20	21	55	29	13	28	102	9.1
3	17	35	31	29	e170	22	133	75	10	6.1	50	8.1
4	18	31	29	27	258	27	109	75	9.1	4.4	39	7.9
5	17	384	31	125	102	25	72	41	9.1	3.8	33	6.3
6	15	318	32	63	761	70	45	34	10	4.6	25	e6.5
7	13	126	28	37	425	44	38	30	9.3	5.1	21	e6.0
8	12	63	26	28	91	40	34	25	8.4	6.4	18	17
9	12	47	25	26	50	50	35	23	7.5	4.7	15	23
10	12	41	103	e24	77	38	28	21	8.1	3.1	14	12
11	12	36	1630	e20	60	30	25	20	7.8	3.0	12	8.3
12	11	87	367	e19	38	26	35	17	7.7	300	16	7.3
13	10	56	74	e18	33	21	431	16	6.4	87	17	6.6
14	14	40	375	e18	33	19	301	15	6.0	116	13	6.0
15	208	35	357	e17	28	19	325	15	8.7	171	22	5.9
16	31	31	88	e17	21	22	82	42	7.9	27	14	6.1
17	26	31	364	e16	19	29	59	19	8.8	16	11	6.1
18	48	28	139	e30	19	42	49	16	12	107	9.7	425
19	25	322	72	e35	20	119	43	31	8.0	107	9.6	87
20	20	558	55	e20	22	160	37	24	6.1	30	8.8	28
21	19	87	45	e19	26	137	32	17	5.1	19	26	18
22	19	57	41	e18	24	57	30	15	5.0	14	22	14
23	18	45	39	e16	21	40	32	13	6.2	462	11	11
24	15	41	746	e15	20	34	46	13	5.2	199	9.2	9.3
25	14	50	175	e16	20	32	30	11	6.3	46	8.4	8.7
26	14	38	75	e17	18	29	171	14	27	28	7.9	8.1
27	775	33	54	e16	17	30	197	21	8.1	172	7.4	7.6
28	265	86	45	e16	16	28	65	13	5.7	e600	7.3	1270
29	791	215	41	e15	16	24	45	11	12	302	6.4	1390
30	123	56	38	e16	---	23	37	9.4	7.7	89	6.7	512
31	66	---	32	e17	---	113	---	12	---	61	60	---
TOTAL	2683	3064	5237	810	2443	1389	2681	749.4	273.2	3027.3	1258.4	3944.9
MEAN	86.5	102	169	26.1	84.2	44.8	89.4	24.2	9.11	97.7	40.6	131
MAX	791	558	1630	125	761	160	431	75	27	600	636	1390
MIN	10	28	25	15	16	18	25	9.4	5.0	3.0	6.4	5.9
CFSM	3.23	3.81	6.30	0.97	3.14	1.67	3.33	0.90	0.34	3.64	1.51	4.91
IN.	3.72	4.25	7.27	1.12	3.39	1.93	3.72	1.04	0.38	4.20	1.75	5.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

MEAN	31.3	41.4	58.9	39.1	52.5	72.5	43.2	30.7	69.8	27.5	28.2	73.3
MAX	86.5	102	169	71.2	84.2	105	89.4	46.8	211	97.7	47.5	174
(WY)	2004	2004	2004	1999	2004	2003	2004	2002	2001	2004	2000	1999
MIN	3.22	3.40	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

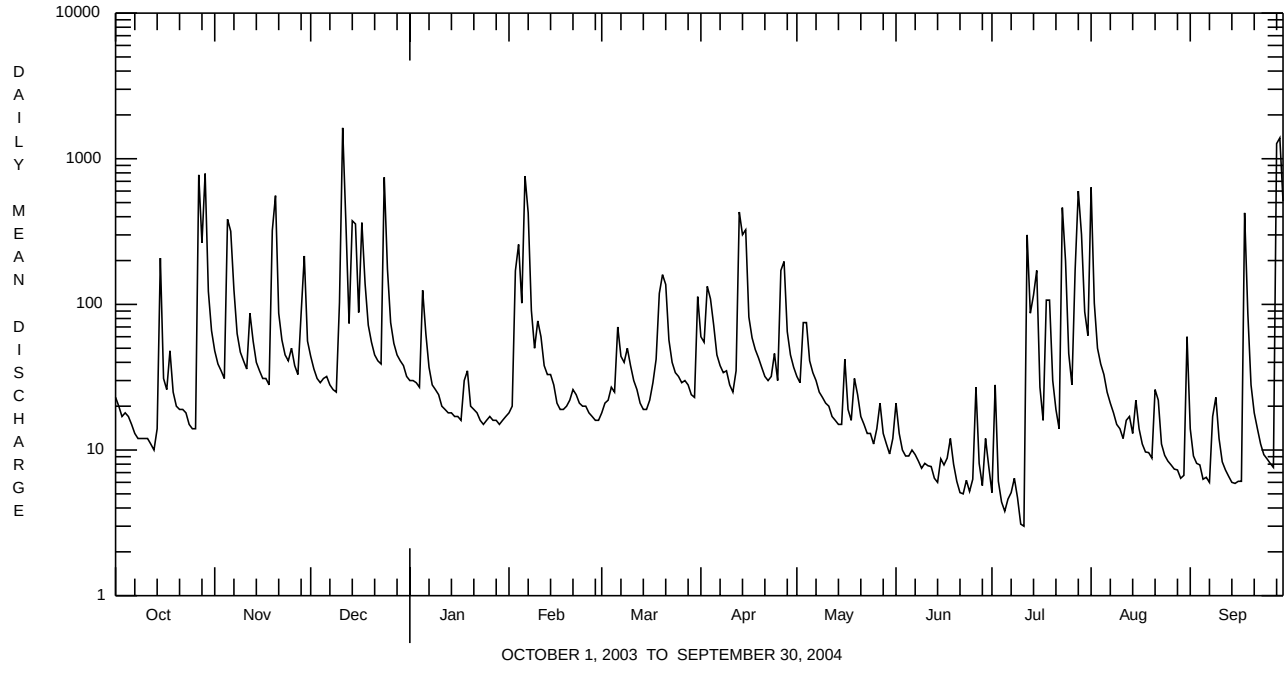
e Estimated.

NESHAMINY CREEK BASIN

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	27680.2		27560.2			
ANNUAL MEAN	75.8		75.3		48.4	
HIGHEST ANNUAL MEAN					75.3	2004
LOWEST ANNUAL MEAN					16.1	2002
HIGHEST DAILY MEAN	1630	Dec 11	1630	Dec 11	2830	Sep 16 1999
LOWEST DAILY MEAN	4.9	Jul 17,31	3.0	Jul 11	0.24	Aug 2 1999
ANNUAL SEVEN-DAY MINIMUM	6.1	Jul 15	4.4	Jul 5	0.27	Aug 1 1999
MAXIMUM PEAK FLOW			**a**5440	Sep 28	**a**11300	Jun 16 2001
MAXIMUM PEAK STAGE			10.07	Sep 28	**b**14.57	Jun 16 2001
INSTANTANEOUS LOW FLOW			2.6	Jul 11,12	0.15	Aug 8 1999
ANNUAL RUNOFF (CFSM)	2.83		2.81		1.81	
ANNUAL RUNOFF (INCHES)	38.42		38.26		24.55	
10 PERCENT EXCEEDS	210		170		93	
50 PERCENT EXCEEDS	29		26		16	
90 PERCENT EXCEEDS	9.2		7.8		4.4	

a From rating curve extended above 758 ft^3/s on basis of contracted-opening measurements at gage height 11.68 and at peak flow.
b From outside high-water mark.



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

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 "Water-Quality-Control Data" in the "Introduction".

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
NOV											
06...	1200	Environmental	170	56	758	9.1	91	7.3	205	16.5	15.2
DEC											
11...	1100	Environmental	3,260	240	734	11.4	100	7.0	146	12.0	8.1
JAN											
06...	1110	Environmental	58	31	760	13.4	106	7.4	338	4.0	5.2
MAR											
15...	0840	Environmental	19	4.0	760	13.6	109	8.1	674	11.5	5.7
APR											
19...	1200	Environmental	42	3.7	758	17.2	179	8.9	490	28.0	16.9
MAY											
17...	1230	Environmental	18	5.7	765	9.6	110	7.7	513	23.1	22.3
17...	*1231*	*Split Replicate*	--	--	--	--	--	--	--	--	--
JUN											
21...	*1049*	*Field Blank*	--	--	--	--	--	--	--	--	--
21...	1050	Environmental	5.3	4.0	759	8.7	97	7.7	676	25.0	20.4
JUL											
16...	1240	Environmental	25	12	754	9.0	104	7.6	341	26.5	21.6
SEP											
01...	1510	Environmental	13	12	759	11.8	137	8.6	401	29.0	22.5

Date	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV												
06...	52	63	15.9	16.1	<.04	.62	<.008	.077	.22	1.54	33	15
DEC												
11...	16	19	25.8	5.9	.05	.38	E.007	.059	.42	1.48	281	2,470
JAN												
06...	62	75	43.2	25.0	.05	1.20	.019	.014	.097	1.76	24	3.8
MAR												
15...	99	119	116	38.7	<.04	1.28	.018	E.005	.047	1.64	7	.36
APR												
19...	95	107	69.3	30.6	<.04	.90	.018	.012	.051	1.30	4	.45
MAY												
17...	92	111	65.8	31.7	.06	1.40	.062	.046	.117	2.17	6	.29
17...	--	--	*66.1*	*31.7*	*.06*	*1.42*	*.063*	*.047*	*.116*	*2.11*	*6*	--
JUN												
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	144	174	94.0	44.5	E.03	1.05	.014	.081	.124	1.72	6	.09
JUL												
16...	76	91	36.1	30.4	<.04	1.08	.008	.088	.141	1.55	12	.81
SEP												
01...	83	100	49.5	29.8	<.04	.92	E.005	.095	.179	1.70	24	.84

Remark codes used in this table:
< -- Less than
E -- Estimated value

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

WATER-COLUMN PESTICIDE ANALYSES

REMARKS.--The following were determined using laboratory schedule 2001 (listed in its entirety, with laboratory reporting levels, on page 215). Only pesticides detected in one or more surface-water samples are listed in the following table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	CIAT, water, fltrd, µg/L (04040)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atra-zine, water, fltrd, µg/L (39632)	Ben-flur-alin, water, fltrd 0.7µ GF µg/L (82673)	Car-baryl, water, fltrd 0.7µ GF µg/L (82680)	Chlor-pyrifos water, fltrd, µg/L (38933)	DCPA, water fltrd 0.7µ GF µg/L (82682)
NOV											
06...	1200	Environmental	E.006	<.006	<.005	<.005	.009	<.010	E.048	<.005	<.003
JAN											
06...	1110	Environmental	E.010	<.006	<.005	<.005	.011	<.010	E.010	<.005	<.003
MAR											
15...	0840	Environmental	E.018	<.006	<.005	<.005	.016	<.010	<.041	<.005	<.003
APR											
19...	1200	Environmental	E.014	.007	<.005	<.005	.020	E.006	E.027	<.005	<.003
MAY											
17...	1230	Environmental	E.055	.030	<.005	<.005	.566	E.006	E.160	<.005	<.003
17...	*1231*	*Split Replicate*	*E.058*	*.031*	*<.005*	*<.005*	*.588*	*E.005*	*E.165*	*<.005*	*<.003*
JUN											
21...	*1049*	*Field Blank*	*<.006*	*<.006*	*<.005*	*<.005*	*<.007*	*<.010*	*<.041*	*<.005*	*<.003*
21...	1050	Environmental	E.020	<.006	<.005	<.005	.039	<.010	<.041	<.005	<.003
JUL											
16...	1240	Environmental	E.012	<.006	<.005	<.005	.053	<.010	E.497	<.005	E.002
SEP											
01...	1510	Environmental	E.012	<.006	<.005	<.005	.019	<.010	E.036	<.005	<.003

Date	Desulf-inyl fipro-nil, water, fltrd, µg/L (62170)	Diazi-non, water, fltrd, µg/L (39572)	Desulf-inyl-fipro-nil amide, wat flt µg/L (62169)	Fipro-nil sulfide water, fltrd, µg/L (62167)	Fipro-nil sulfone water, fltrd, µg/L (62168)	Fipro-nil, water, fltrd, µg/L (62166)	Lindane water, fltrd, µg/L (39341)	Metola-chlor, water, fltrd, µg/L (39415)	Pendi-meth-alin, water, fltrd 0.7µ GF µg/L (82683)	Prome-ton, water, fltrd, µg/L (04037)	Sima-zine, water, fltrd, µg/L (04035)	Tebu-thiuron water fltrd 0.7µ GF µg/L (82670)	Tri-flur-alin, water, fltrd 0.7µ GF µg/L (82661)
NOV													
06...	<.012	E.008	<.029	<.013	<.024	E.007	<.004	.022	<.022	.01	<.005	<.02	<.009
JAN													
06...	<.012	.008	<.029	<.013	<.024	E.012	.005	.014	<.022	.01	.014	<.02	<.009
MAR													
15...	<.012	<.005	<.029	<.013	<.024	E.015	<.004	E.008	<.022	.01	<.008	E.02	<.009
APR													
19...	E.004	<.005	<.029	<.013	<.024	E.012	<.004	E.009	E.015	.01	.011	E.01	E.007
MAY													
17...	E.005	<.005	<.029	<.013	<.024	E.019	<.004	.671	<.022	.02	.017	.03	E.007
17...	*E.005*	*<.005*	*<.029*	*<.013*	*<.024*	*E.025*	*<.004*	*.685*	*<.022*	*.02*	*.021*	*.03*	*E.005*
JUN													
21...	*<.012*	*<.005*	*<.029*	*<.013*	*<.024*	*<.016*	*<.004*	*<.013*	*<.022*	*<.01*	*<.005*	*<.02*	*<.009*
21...	E.009	<.005	<.029	E.005	E.007	E.025	<.004	.018	<.022	.02	.006	<.02	<.009
JUL													
16...	<.012	.010	<.029	<.013	<.024	E.013	<.004	.105	<.022	.03	<.010	<.02	<.009
SEP													
01...	<.012	<.005	<.029	<.013	<.024	E.032	<.004	.021	<.022	.04	<.005	<.02	<.009