

## NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA  
(Pennsylvania Water-Quality Network Station)

**LOCATION.**--Lat 40°10'26", long 74°57'26", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on State Highway 213, 0.3 mi downstream from Mill Creek, and 1.7 mi west of Langhorne.

**DRAINAGE AREA.**--210 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1934 to current year.

**REVISED RECORDS.**--WSP 1332: 1949. WSP 1432: 1936-37. WDR PA-83-1: 1982(P).

**GAGE.**--Water-stage recorder. Datum of gage is 40.57 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Some regulation at low flow by mills above station. Flow regulated by upstream reservoirs on Little Neshaminy Creek, Robin Run, Pine Run, North Branch Neshaminy Creek, and Core Creek (combined flood control capacity, about 9,560 acre-ft). Occasional regulation by Springfield Lake, capacity, 2,000 acre-ft, completed in 1934; no significant regulation except during period May 1934 to January 1944, when the lake was filling, and in September 1949, July 1954, July through October 1957, and September, October 1961. Interceptor sewer installed along left bank during May and June 1966. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of Aug. 23, 1933 reached a stage of 17.3 ft, from floodmark, discharge, about 30,000 ft<sup>3</sup>/s, from rating curve extended as explained in footnotes on next page.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 4,500 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)
May 18	1500	*3,960	*6.90	(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	53	37	40	e55	168	50	200	257	101	89	36	93
2	52	35	38	e50	164	50	182	251	93	78	37	288
3	48	38	37	e48	129	565	150	869	81	72	388	115
4	46	39	38	e47	107	283	147	314	75	66	131	72
5	44	43	36	e46	e85	151	136	199	73	59	70	54
6	43	40	38	66	e78	113	123	163	183	53	53	45
7	43	37	40	e150	e76	101	115	143	1250	49	43	41
8	42	36	43	e130	e78	89	110	130	288	47	38	43
9	38	35	94	112	77	83	108	213	166	53	35	40
10	40	35	120	83	71	88	128	299	131	141	33	39
11	39	34	63	132	89	85	118	159	110	64	30	39
12	37	34	52	313	79	73	95	140	132	51	35	35
13	39	37	50	140	72	80	105	299	193	47	46	32
14	39	35	56	102	65	113	111	1200	263	45	50	38
15	42	38	79	84	61	100	114	453	469	47	45	46
16	43	34	76	73	61	87	106	271	208	46	39	66
17	45	35	55	67	61	83	99	208	153	41	40	82
18	38	35	77	61	60	242	93	1910	132	40	39	43
19	36	35	123	56	55	443	91	869	131	49	39	38
20	39	39	75	57	53	1010	91	407	138	218	38	38
21	40	38	58	66	57	1210	91	294	106	108	50	35
22	38	36	52	63	66	384	96	234	92	62	45	32
23	38	36	50	61	57	247	111	195	84	49	83	33
24	40	35	106	196	52	196	92	167	89	54	80	30
25	40	39	147	471	52	169	92	149	100	57	53	31
26	39	75	79	174	51	151	125	134	81	46	47	37
27	39	81	61	124	51	454	109	140	91	42	39	463
28	39	49	54	100	50	290	389	132	555	42	38	509
29	36	44	54	88	---	200	565	120	174	39	106	200
30	39	42	43	81	---	172	250	110	110	37	219	101
31	37	---	e58	114	---	165	---	105	---	36	72	---
TOTAL	1271	1206	1992	3410	2125	7527	4342	10534	5852	1927	2097	2758
MEAN	41.0	40.2	64.3	110	75.9	243	145	340	195	62.2	67.6	91.9
MAX	53	81	147	471	168	1210	565	1910	1250	218	388	509
MIN	36	34	36	46	50	50	91	105	73	36	30	30

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2002, BY WATER YEAR (WY)

MEAN	130	236	360	408	453	538	431	288	207	184	167	164
MAX	840	1170	1424	1509	1074	1246	1455	862	882	1161	1694	1330
(WY)	1997	1973	1997	1979	1939	1936	1983	1989	1989	1938	1955	1999
MIN	13.8	23.2	34.3	47.2	75.9	105	89.8	54.5	33.7	21.8	15.1	15.4
(WY)	1958	1937	1966	1981	2002	1985	1985	1963	1965	1957	1966	1951

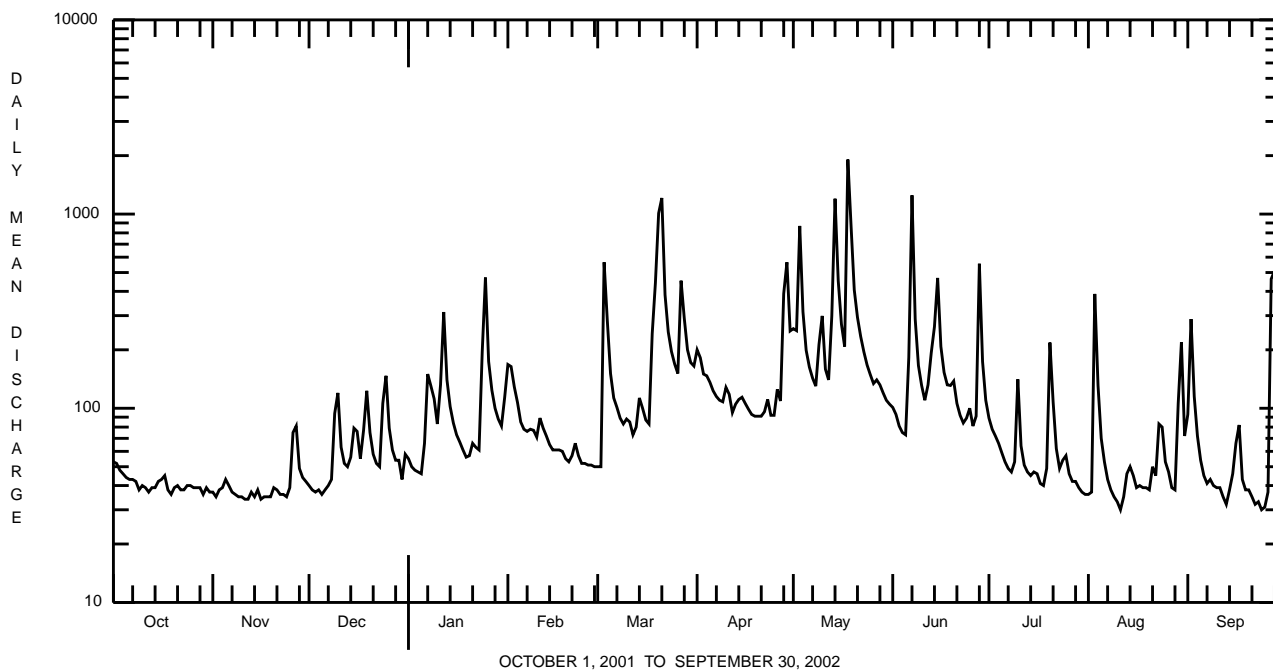
e Estimated.

NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1935 - 2002	
ANNUAL TOTAL	99473		45041			
ANNUAL MEAN	273		123		296	
HIGHEST ANNUAL MEAN					565	1973
LOWEST ANNUAL MEAN					121	1985
HIGHEST DAILY MEAN	11100	Jun 17	1910	May 18	27300	Aug 19 1955
LOWEST DAILY MEAN	34	Nov 11,12,16	30	Aug 11, Sep 24	2.9	Sep 8 1957
ANNUAL SEVEN-DAY MINIMUM	35	Nov 8	34	Sep 20	8.2	Aug 26 1944
MAXIMUM PEAK FLOW			3960	May 18	<b>a</b> 49300	Aug 19 1955
MAXIMUM PEAK STAGE			6.90	May 18	<b>b</b> 22.84	Aug 19 1955
INSTANTANEOUS LOW FLOW			27	Dec 30, Aug 12	1.9	Sep 8 1957
10 PERCENT EXCEEDS	557		244		575	
50 PERCENT EXCEEDS	109		72		139	
90 PERCENT EXCEEDS	38		37		32	

**a** From rating curve extended above 4,700 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow at gage height 22.84 ft.  
**b** From floodmark.



## NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued  
(Pennsylvania Water-Quality Network Station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 410-425.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

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

Date	Time	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM- PLING METHOD, CODES (82398)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (µS/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	ANC WATER UNFLTRD FET LAB (MG/L AS CACO3) (00417)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
APR 2002 30...	0850	9813	257	30	10.7	7.6	326	11.6	92	22.8	8.6	64	27.4
JUN 18...	1120	9813	125	30	12.2	8.4	372	20.8	110	26.6	11.0	72	32.3
AUG 14...	0830	9813	50	30	5.8	7.7	473	24.4	120	31.1	10.5	88	37.2

Date	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	COPPER, TOTAL RECOV- ERABLE (µG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (µG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (µG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L AS MN) (01055)
APR 2002 30...	202	8	.050	1.44	<.040	2.1	.13	.180	6.2	<10	360	<1.0	20
JUN 18...	264	4	<.020	2.28	<.040	2.7	.16	.180	4.0	<10	240	<1.0	30
AUG 14...	296	8	.340	.86	.090	1.8	.15	.250	5.1	<10	370	<1.0	100

Date	NICKEL, TOTAL RECOV- ERABLE (µG/L AS NI) (01067)	ZINC, TOTAL RECOV- ERABLE (µG/L AS ZN) (01092)
APR 2002 30...	<50	10
JUN 18...	<50	<10
AUG 14...	<50	10