



2005 Water Year
NESHAMINY CREEK BASIN
01465500 Neshaminy Creek near Langhorne, PA

Latitude: 40° 10' 26"

Longitude: 074° 57' 26"

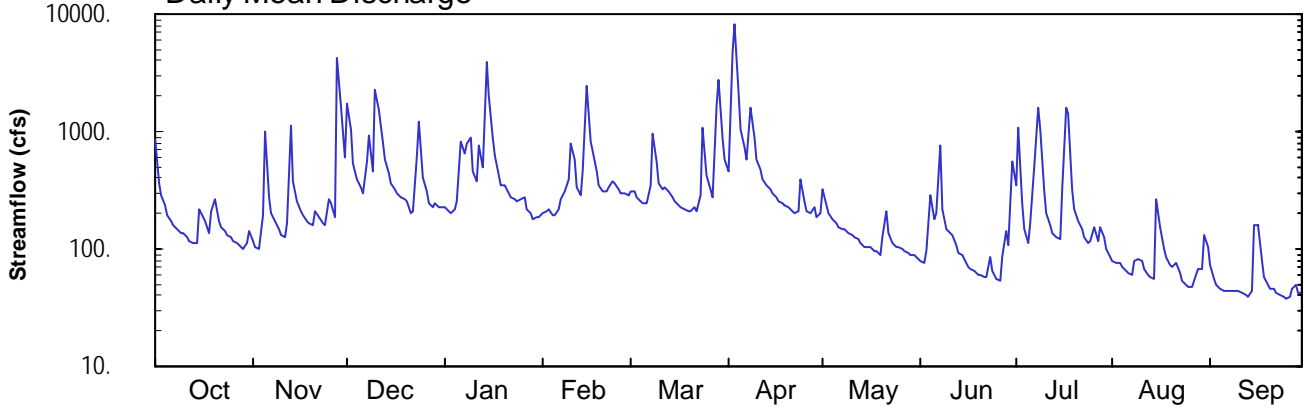
Hydrologic Unit Code: 02040201

Bucks County

Datum: 40.57 feet

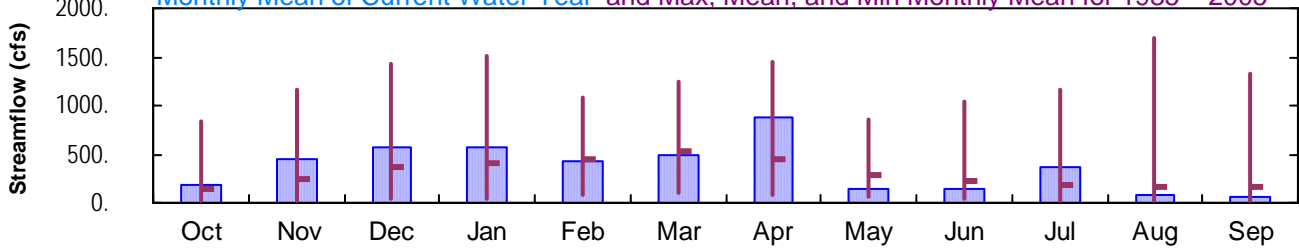
Drainage Area: 210. mi²

Daily Mean Discharge

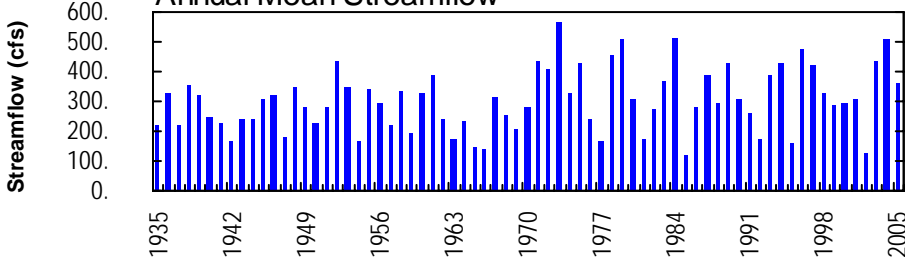


Monthly Statistics

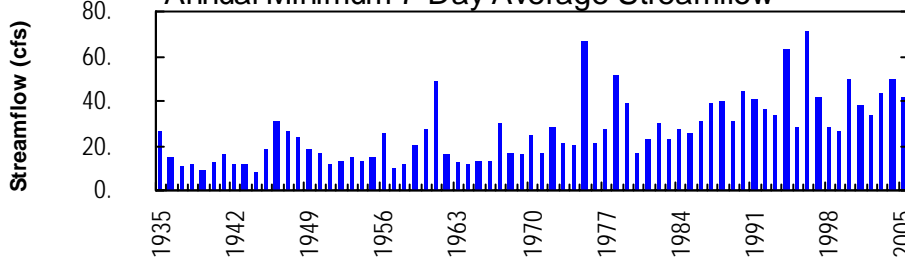
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1935 – 2005



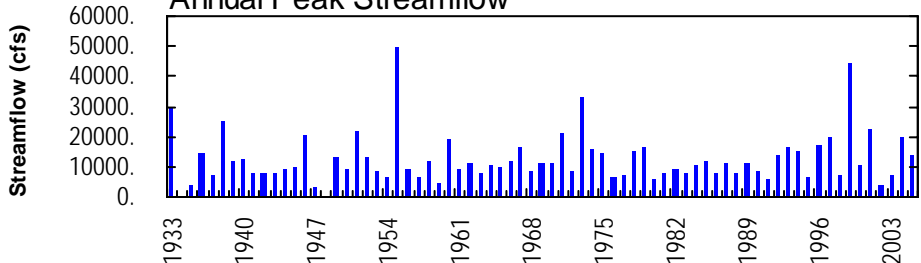
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



01465500--Neshaminy Creek near Langhorne

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 mi².

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 ft³/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 ft³/s and maximum(*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Nov. 28	1530	8,620	10.19	Mar. 29	0015	5,810	8.19
Jan. 14	1630	8,020	9.82	Apr. 3	0430	*14,000	*12.87

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	869	117	1720	223	e200	311	450	324	80	350	80	74
2	365	106	1060	210	e210	304	4680	237	75	1090	76	55
3	283	101	528	204	218	278	8120	199	97	246	75	49
4	232	195	390	216	193	254	2180	180	286	147	70	47
5	197	1000	337	258	198	246	1060	165	177	113	65	44
6	172	278	301	807	219	245	735	154	201	163	63	44
7	158	200	559	661	262	345	576	149	763	489	59	44
8	149	171	926	787	304	948	1600	145	219	1570	79	44
9	139	148	455	896	398	558	874	137	145	1030	81	44
10	134	130	2250	459	791	356	588	130	142	308	81	44
11	124	124	1550	373	569	322	468	125	131	205	67	42
12	116	169	820	754	334	333	389	121	110	159	60	41
13	112	1110	573	488	285	315	353	112	93	134	57	40
14	115	379	438	3970	456	277	325	106	88	125	55	43
15	222	251	357	2020	2420	255	296	105	83	120	270	158
16	187	213	318	899	831	240	271	104	72	320	153	163
17	174	191	298	622	690	228	257	96	67	1610	101	79
18	137	176	275	429	453	220	249	95	64	1400	86	59
19	209	164	265	e350	349	208	236	89	61	318	73	49
20	262	158	253	e350	308	213	224	127	60	218	69	46
21	171	209	e200	e300	313	226	211	212	58	171	75	45
22	155	189	e210	e280	331	209	201	138	59	147	62	43
23	141	164	629	e265	374	289	207	113	85	128	54	40
24	130	161	1240	e255	361	1070	392	105	65	111	49	40
25	124	264	405	e265	321	425	252	103	56	115	49	38
26	119	243	305	e275	301	321	209	100	53	152	48	39
27	111	185	e250	e220	293	281	205	98	85	115	53	46
28	105	4250	e225	e200	288	1640	228	91	145	153	67	49
29	102	1680	247	e180	---	2800	188	89	108	127	68	43
30	112	611	230	e185	---	902	204	89	562	98	134	42
31	142	---	224	e190	---	577	---	82	---	86	106	---
TOTAL	5768	13337	17838	17591	12270	15196	26228	4120	4290	11518	2485	1634
MEAN	186	445	575	567	438	490	874	133	143	372	80.2	54.5
MAX	869	4250	2250	3970	2420	2800	8120	324	763	1610	270	163
MIN	102	101	200	180	193	208	188	82	53	86	48	38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2005, BY WATER YEAR (WY)

MEAN	137	246	377	407	454	538	440	284	217	192	168	173
MAX	840	1170	1424	1509	1074	1246	1455	862	1049	1161	1694	1330
(WY)	1997	1973	1997	1979	1939	1936	1983	1989	2003	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

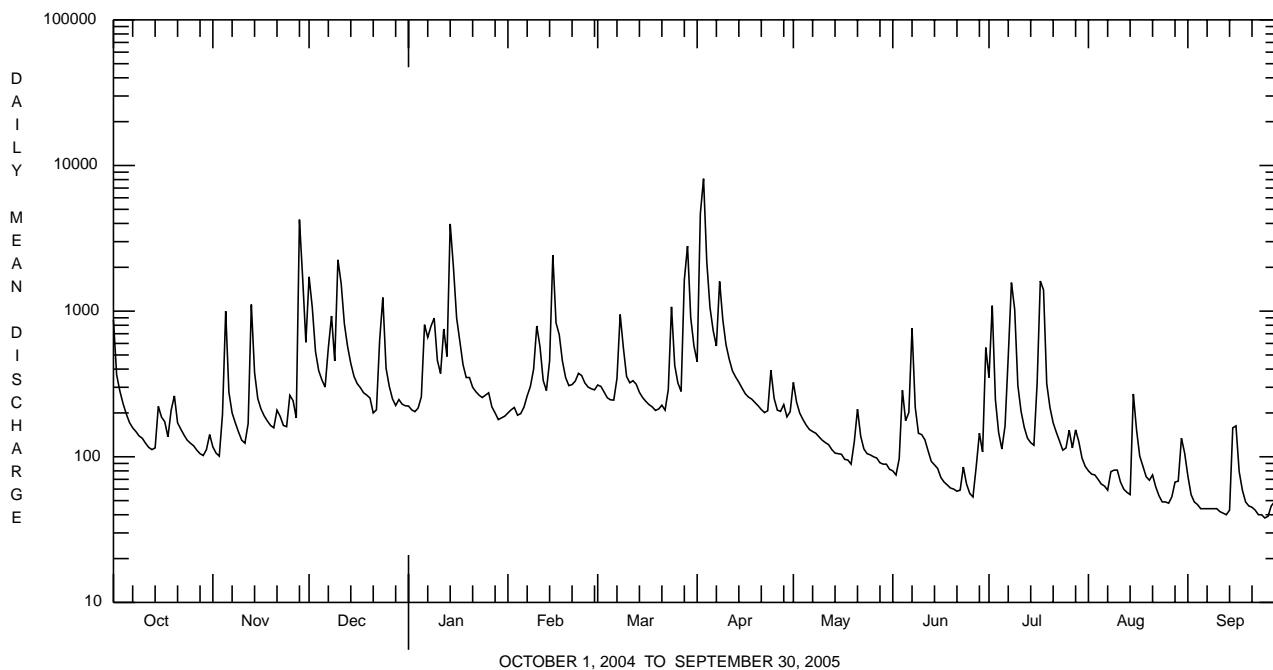
e Estimated.

NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1935 - 2005	
ANNUAL TOTAL	147971		132275		302	
ANNUAL MEAN	404		362		565	
HIGHEST ANNUAL MEAN					121	1973
LOWEST ANNUAL MEAN					121	1985
HIGHEST DAILY MEAN	11900	Sep 29	8120	Apr 3	27300	Aug 19 1955
LOWEST DAILY MEAN	42	Jul 11	38	Sep 25	2.9	Sep 8 1957
ANNUAL SEVEN-DAY MINIMUM	50	Jul 5	42	Sep 20	8.2	Aug 26 1944
MAXIMUM PEAK FLOW			a14000	Apr 3	a49300	Aug 19 1955
MAXIMUM PEAK STAGE			12.87	Apr 3	b22.84	Aug 19 1955
INSTANTANEOUS LOW FLOW			37	Sep 13c	1.9	Sep 8 1957
10 PERCENT EXCEEDS	829		789		586	
50 PERCENT EXCEEDS	210		201		141	
90 PERCENT EXCEEDS	84		59		33	

- a From rating curve extended above 6,720 ft³/s on basis of slope-area measurement of peak flow at gage height 22.84 ft.
- b From floodmark.
- c Also Sept. 14, 25.



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.

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 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, unfltrd recover-able, mg/L (00916)	Magnesium, water, unfltrd recover-able, mg/L (00927)
NOV 2004 09...	1040	1028	9813	151	14.0	7.1	7.9	403	390	7.6	130	32	12
JAN 2005 12...	1100	1028	9813	947	13.9	7.7	8.0	380	379	5.1	110	28	11
MAR 29...	1010	1028	9813	2600	11.5	7.3	7.6	260	253	7.2	70	17	6.7
MAY 24...	1050	1028	9813	105	9.3	7.8	8.0	485	479	15.8	140	34	12
JUL 12...	1100	1028	9813	161	8.9	6.7	8.0	400	400	25.4	120	29	11
SEP 07...	1220	1028	9813	44	10.4	8.0	7.8	537	549	21.6	140	36	13

Date	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat fltrd, mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water, unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover-able, µg/L (01105)	Copper, water, unfltrd recover-able, µg/L (01042)
NOV 2004 09...	86	29	260	14	.210	2.3	<.040	2.8	.14	.18	4.0	240	<10
JAN 2005 12...	71	28	250	14	<.020	2.4	<.040	2.7	.12	.12	3.1	660	<10
MAR 29...	38	14	160	220	.100	1.0	<.040	2.1	.07	.33	--	5300	10
MAY 24...	82	36	260	<2.0	.050	2.7	<.040	3.2	.16	.19	--	<200	<10
JUL 12...	83	37	470	<2.0	.040	1.8	<.040	2.0	.13	.17	--	<200	<10
SEP 07...	94	43	340	14	.040	1.5	<.040	1.8	.19	.21	--	<200	<10

Date	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, unfltrd recover-able, µg/L (01051)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, unfltrd recover-able, µg/L (01092)
NOV 2004 09...	80	<1.0	20	<50	19
JAN 2005 12...	720	<1.0	30	<50	12
MAR 29...	7300	12	260	<50	40
MAY 24...	110	<1.0	30	<50	<10
JUL 12...	200	<1.0	40	<50	<10
SEP 07...	140	<1.0	30	<50	18

NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 μ m. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/11/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	6
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	2
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Baetis</i>	21
Heptageniidae	
<i>Stenonema</i>	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	1
Helicopsychidae	
<i>Helicopsyche</i>	8
Hydropsychidae	
<i>Cheumatopsyche</i>	4
<i>Hydropsyche</i>	8
Hydroptilidae	
<i>Leucotrichia</i>	3
Philopotamidae	
<i>Chimarra</i>	7
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	3
<i>Stenelmis</i>	50
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	18
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	2
Total Organisms	137
Total Taxa	16