

NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA

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.

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 sea level.

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)
Mar. 22	0800	5,430	8.32	July 31	2330	5,050	7.97
July 30	2200	*10,600	*11.89				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	123	170	160	e180	382	323	177	163	70	1800	133
2	173	177	150	155	e160	345	291	177	150	63	762	135
3	146	851	143	155	e130	306	277	169	128	58	355	183
4	153	293	138	197	e120	274	400	156	115	71	1530	102
5	464	206	133	778	e120	259	403	149	109	69	474	89
6	287	180	449	323	e110	239	307	155	122	58	292	82
7	195	165	624	243	e110	223	279	145	160	55	275	78
8	160	148	273	211	e100	212	258	135	127	50	246	74
9	147	139	216	192	e100	204	343	128	106	50	204	73
10	342	134	226	263	e110	197	449	131	97	52	190	72
11	586	129	387	526	e140	225	285	143	91	48	156	69
12	267	118	250	293	e200	609	250	135	88	49	330	69
13	205	116	215	237	e170	403	220	131	202	44	277	121
14	180	113	1370	206	e500	273	202	397	155	54	581	181
15	160	112	1550	e160	e700	237	199	204	130	71	715	620
16	150	105	582	e150	e500	226	255	140	115	174	310	248
17	143	98	406	e140	e400	1540	480	123	105	269	223	139
18	159	91	328	e130	e350	651	782	117	104	98	201	113
19	184	89	281	e120	1310	413	424	413	174	74	201	438
20	219	90	331	e120	941	350	323	701	141	79	172	1590
21	465	94	533	e120	745	362	334	618	102	74	150	317
22	234	95	340	e110	608	3150	698	303	373	60	129	201
23	289	93	274	e110	629	940	436	264	210	61	117	165
24	254	91	246	e100	657	584	347	1140	126	54	115	154
25	195	100	216	e100	726	465	294	820	102	52	112	148
26	172	131	199	e110	674	407	261	428	90	206	104	926
27	156	1070	196	e130	508	352	238	304	83	727	98	649
28	145	438	187	e120	696	1220	226	250	90	248	373	299
29	138	248	177	e110	498	657	212	217	78	134	227	215
30	130	197	167	e90	---	445	195	192	75	1570	125	169
31	126	---	165	e130	---	373	---	173	---	2290	146	---
TOTAL	6916	6034	10922	5989	12192	16523	9991	8735	3911	7032	10990	7852
MEAN	223	201	352	193	420	533	333	282	130	227	355	262
MAX	586	1070	1550	778	1310	3150	782	1140	373	2290	1800	1590
MIN	126	89	133	90	100	197	195	117	75	44	98	69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2000, BY WATER YEAR (WY)

	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	132	240	365	414	458	541	437	288	198	187	169	166																																																						
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	115	105	89.8	54.5	33.7	21.8	15.1	15.4																																																						
(WY)	1958	1937	1966	1981	1947	1985	1985	1963	1965	1957	1966	1951																																																						

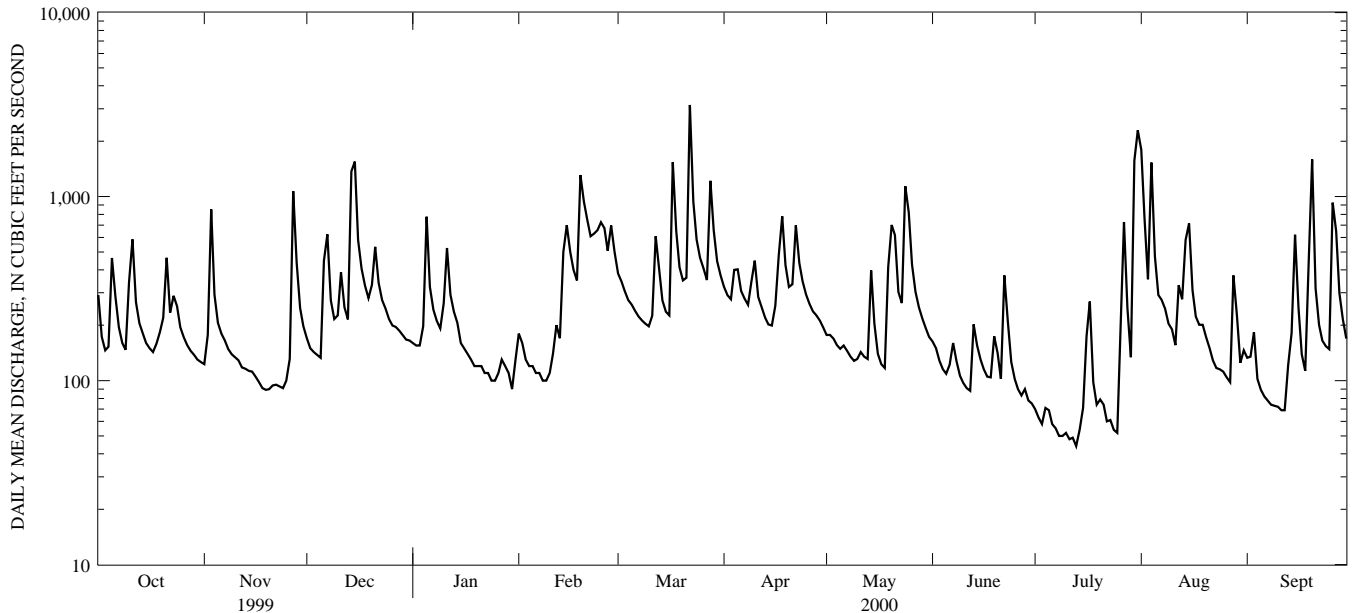
e Estimated.

NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1935 - 2000	
ANNUAL TOTAL	122482		107087			
ANNUAL MEAN	336		293		299	
HIGHEST ANNUAL MEAN					565	1973
LOWEST ANNUAL MEAN					121	1985
HIGHEST DAILY MEAN	e17000	Sep 17	3150	Mar 22	27300	Aug 19 1955
LOWEST DAILY MEAN	25	Aug 4-6	44	Jul 13	2.9	Sep 8 1957
ANNUAL SEVEN-DAY MINIMUM	26	Aug 2	50	Jul 8	8.2	Aug 26 1944
INSTANTANEOUS PEAK FLOW			10600	Jul 30	a49300	Aug 19 1955
INSTANTANEOUS PEAK STAGE			11.89	Jul 30	b22.84	Aug 19 1955
INSTANTANEOUS LOW FLOW			43	Jul 13,14	1.9	Sep 8 1957
10 PERCENT EXCEEDS	584		621		580	
50 PERCENT EXCEEDS	158		192		140	
90 PERCENT EXCEEDS	36		90		32	

- a From rating curve extended above 4,700 ft³/s on basis of slope-area measurement of peak flow at gage height 22.84 ft.
- b From floodmark.
- e Estimated.



1-YEAR HYDROGRAPH
OCTOBER 1, 1999 TO SEPTEMBER 30, 2000