

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)
Dec. 17	1900	7,480	9.93	June 17	0830	*22,600	*16.87
Mar. 30	1300	5,280	8.18				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	69	141	e81	623	267	797	165	218	190	57	41
2	140	67	118	e78	477	247	572	163	1790	466	53	39
3	127	70	105	e78	397	232	460	159	638	215	49	37
4	140	69	93	e77	297	224	393	149	375	166	119	41
5	349	64	94	e77	655	266	347	138	279	175	225	44
6	188	62	90	e78	759	273	351	122	227	156	105	43
7	145	60	86	e80	713	304	490	109	193	136	70	42
8	124	62	84	e90	629	509	375	112	169	125	61	41
9	114	62	80	e86	478	428	413	116	152	127	53	37
10	109	166	78	e84	1930	408	547	106	135	117	59	37
11	106	205	79	e83	797	310	399	95	127	110	156	37
12	102	99	80	e84	455	270	746	89	130	100	261	35
13	94	81	78	e86	397	1470	516	93	133	93	639	41
14	91	92	533	e89	376	717	405	85	117	89	260	80
15	87	132	449	e119	378	447	347	81	107	83	133	116
16	85	100	226	e170	360	469	427	79	992	80	90	59
17	84	82	3340	e201	604	868	413	74	11100	78	76	44
18	101	76	1510	e185	392	587	351	76	2010	144	68	41
19	129	70	520	e501	308	433	327	76	1060	135	63	39
20	105	68	346	1900	287	357	275	72	537	93	61	43
21	90	70	e231	777	e264	829	255	93	350	76	59	491
22	86	67	e183	433	246	2090	244	930	323	69	54	172
23	81	61	e153	e299	239	759	230	445	473	65	51	81
24	78	61	e128	e264	230	524	223	217	1010	66	52	59
25	76	59	e107	e244	259	429	207	151	382	66	49	144
26	75	542	e92	229	735	378	193	365	281	182	46	160
27	76	482	e89	212	405	333	185	1970	229	100	54	79
28	73	210	e89	199	313	296	183	860	200	70	47	61
29	70	155	e86	181	---	271	171	392	182	61	47	52
30	70	157	e86	851	---	3060	166	272	170	62	43	48
31	69	---	e83	1280	---	1350	---	204	---	61	45	---
TOTAL	3415	3620	9457	9196	14003	19405	11008	8058	24089	3756	3205	2284
MEAN	110	121	305	297	500	626	367	260	803	121	103	76.1
MAX	349	542	3340	1900	1930	3060	797	1970	11100	466	639	491
MIN	69	59	78	77	230	224	166	72	107	61	43	35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2001, BY WATER YEAR (WY)

MEAN	132	239	364	412	459	542	436	288	207	186	168	165
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.

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01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1935 - 2001	
ANNUAL TOTAL	99707		111496			
ANNUAL MEAN	272		305		299	
HIGHEST ANNUAL MEAN					565	1973
LOWEST ANNUAL MEAN					121	1985
HIGHEST DAILY MEAN	3340	Dec 17	11100	Jun 17	27300	Aug 19 1955
LOWEST DAILY MEAN	44	Jul 13	35	Sep 12	2.9	Sep 8 1957
ANNUAL SEVEN-DAY MINIMUM	50	Jul 8	39	Sep 7	8.2	Aug 26 1944
MAXIMUM PEAK FLOW			a22600	Jun 17	a49300	Aug 19 1955
MAXIMUM PEAK STAGE			16.87	Jun 17	b22.84	Aug 19 1955
INSTANTANEOUS LOW FLOW			32	Sep 13	1.9	Sep 8 1957
10 PERCENT EXCEEDS	608		594		580	
50 PERCENT EXCEEDS	155		140		140	
90 PERCENT EXCEEDS	70		59		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.

