

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	0915	8,140	10.38	Sept. 17	Unknown	*44,400	*a21.91

a From floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	41	47	e36	135	481	206	131	79	42	30	59
2	25	42	44	e35	517	322	214	127	75	50	28	54
3	24	41	41	1390	659	221	197	125	71	51	27	50
4	29	42	41	703	314	648	183	128	68	40	25	48
5	36	43	43	173	240	357	174	123	62	37	25	52
6	42	40	42	e150	193	264	161	117	60	35	25	65
7	35	40	43	e135	177	484	157	113	59	36	26	118
8	117	41	45	e130	187	286	151	122	57	34	29	200
9	517	43	52	e210	214	227	154	170	53	34	36	111
10	372	45	51	e600	186	214	650	123	51	36	40	876
11	198	59	47	197	162	198	359	102	49	35	35	314
12	109	54	42	147	151	178	594	91	50	33	33	e150
13	79	58	42	164	313	158	347	87	52	32	33	e100
14	94	47	41	189	238	156	259	82	58	33	1810	81
15	77	41	39	1240	176	217	221	76	64	33	645	93
16	60	38	40	771	161	309	218	70	61	32	150	e12000
17	55	38	40	424	153	520	374	70	54	33	91	e17000
18	51	39	40	1500	955	594	253	71	53	32	68	e3500
19	47	36	40	1630	750	322	209	103	50	32	55	e1400
20	46	34	39	392	348	246	192	232	47	38	68	e800
21	46	35	39	254	261	392	189	118	51	36	116	e500
22	45	39	41	242	215	5100	177	89	53	42	81	496
23	48	38	40	253	176	1280	186	94	48	37	55	385
24	44	38	40	1420	162	640	309	678	45	33	47	265
25	45	36	e36	996	157	486	220	514	42	30	42	220
26	44	63	e35	411	153	382	183	206	41	29	596	186
27	45	120	e35	296	142	323	169	146	42	28	1070	166
28	44	72	e40	245	158	299	155	119	41	26	267	157
29	45	66	e43	201	---	275	147	104	40	28	132	147
30	44	49	e40	165	---	240	139	93	42	27	86	298
31	43	---	e39	151	---	214	---	84	---	27	68	---
TOTAL	2532	1418	1287	14850	7653	16033	7147	4508	1618	1071	5839	39891
MEAN	81.7	47.3	41.5	479	273	517	238	145	53.9	34.5	188	1330
MAX	517	120	52	1630	955	5100	650	678	79	51	1810	17000
MIN	24	34	35	35	135	156	139	70	40	26	25	48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1999, BY WATER YEAR (WY)

MEAN	131	241	365	417	459	541	438	288	199	186	167	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1935 - 1999	
ANNUAL TOTAL	111911		103847			
ANNUAL MEAN	307		285		299	
HIGHEST ANNUAL MEAN					565	1973
LOWEST ANNUAL MEAN					121	1985
HIGHEST DAILY MEAN	3740	Apr 2	e17000	Sep 17	27300	Aug 19 1955
LOWEST DAILY MEAN	23	Sep 16	24	Oct 3	2.9	Sep 8 1957
ANNUAL SEVEN-DAY MINIMUM	27	Sep 28	26	Aug 2	8.2	Aug 26 1944
INSTANTANEOUS PEAK FLOW			b44400	Sep 17	b49300	Aug 19 1955
INSTANTANEOUS PEAK STAGE			a21.91	Sep 17	a22.84	Aug 19 1955
INSTANTANEOUS LOW FLOW			24	Oct 3c	1.9	Sep 8 1957
10 PERCENT EXCEEDS	608		490		580	
50 PERCENT EXCEEDS	135		86		140	
90 PERCENT EXCEEDS	35		35		32	

- a From floodmark.
- b From rating curve extended above 4,700 ft³/s on basis of slope-area measurement of peak flow at gage height 22.84 ft.
- c Also Aug. 7, 8.
- e Estimated.

