

NESHAMINY CREEK BASIN

01464645 NORTH BRANCH NESHAMINY CREEK BELOW LAKE GALENA NEAR NEW BRITAIN, PA

LOCATION.--Lat 40°18'44", long 75°12'25", Bucks County, Hydrologic Unit 02040201, on left bank 0.3 mi downstream from Lake Galena (Peace Valley Reservoir), 1.5 mi west of New Britain, 2.0 mi north of Chalfont on Callowhill Road, and 4.0 mi west of Doylestown.

DRAINAGE AREA.--16.2 mi².

PERIOD OF RECORD.--November 1985 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Lake Galena (Peace Valley Reservoir). Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

COOPERATION.--Records of change in contents in Lake Galena provided by Forest Park Water Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	24	24	96	24	28	55	28	31	32	33	28
2	27	24	24	187	24	51	46	28	29	33	39	26
3	28	23	24	113	24	92	39	28	27	32	34	26
4	26	24	24	95	24	73	34	28	325	31	30	28
5	25	25	24	68	24	100	32	28	348	31	33	29
6	25	25	24	54	24	187	30	28	150	31	77	27
7	27	25	24	45	24	131	30	29	119	33	63	27
8	27	25	24	39	23	87	30	25	137	33	53	27
9	26	25	23	39	23	120	41	26	85	34	65	27
10	26	24	23	38	24	123	67	26	58	32	179	27
11	29	24	32	33	24	77	81	26	44	30	108	26
12	26	27	48	28	24	59	107	26	36	30	68	28
13	25	26	80	25	24	61	85	26	35	30	46	27
14	25	25	217	24	25	63	60	27	39	32	35	33
15	25	25	142	24	24	55	46	27	33	30	27	40
16	28	25	83	24	24	52	38	27	29	30	28	86
17	27	39	55	24	32	57	33	27	29	33	28	49
18	26	51	40	24	28	55	31	27	31	33	28	41
19	24	46	33	24	27	48	30	28	34	31	30	40
20	24	39	58	26	25	60	29	31	156	31	29	36
21	25	33	77	26	25	154	29	27	303	33	33	31
22	25	34	56	26	46	106	29	27	149	38	31	31
23	25	38	43	26	56	71	29	27	85	49	27	54
24	25	31	35	25	40	54	29	27	56	54	28	54
25	25	27	44	25	37	44	28	27	41	45	28	42
26	26	24	53	25	35	39	28	49	33	36	31	35
27	24	25	45	25	30	33	28	53	31	30	31	32
28	25	24	39	26	28	29	26	43	33	33	30	231
29	24	23	35	24	---	38	26	34	32	31	29	131
30	26	22	31	24	---	64	29	30	31	29	28	75
31	26	---	33	24	---	70	---	27	---	30	29	---
TOTAL	797	852	1517	1306	792	2281	1225	917	2569	1040	1358	1394
MEAN	25.7	28.4	48.9	42.1	28.3	73.6	40.8	29.6	85.6	33.5	43.8	46.5
MAX	29	51	217	187	56	187	107	53	348	54	179	231
MIN	24	22	23	24	23	28	26	25	27	29	27	26
(≠)	+6.0	+11.8	+0.5	-12.8	+9.7	+6.8	-8.2	+4.4	-2.7	+0.3	-3.1	+9.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2003, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	23.6	24.9	47.1	34.8	27.7	40.5	32.1	29.0	28.3	21.9	19.9	25.2						
MAX	81.8	86.4	145	80.4	58.8	123	80.0	81.1	85.6	55.3	43.8	114						
(WY)	1997	1996	1997	1996	1988	1994	1996	1998	2003	1988	2003	1999						
MIN	3.91	5.85	17.5	6.62	5.36	4.75	4.68	6.55	5.38	4.92	4.97	3.63						
(WY)	1989	1992	1995	1986	1989	1988	1988	1986	1986	1990	1987	1988						

≠ Change in contents, equivalent in cubic feet per second, in Lake Galena.

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1986 - 2003	
ANNUAL TOTAL	11200		16048			
ANNUAL MEAN	30.7		44.0		30.1	
HIGHEST ANNUAL MEAN					44.3	1996
LOWEST ANNUAL MEAN					13.1	1992
HIGHEST DAILY MEAN	217	Dec 14	348	Jun 5	1040	Sep 17 1999
LOWEST DAILY MEAN	22	Nov 30	22	Nov 30	3.1	Dec 22 1989
ANNUAL SEVEN-DAY MINIMUM	23	Feb 19	24	Nov 28	3.1	Dec 22 1989
MAXIMUM PEAK FLOW			521	Jun 4	a2340	Sep 16 1999
MAXIMUM PEAK STAGE			3.55	Jun 4	4.96	Sep 16 1999
10 PERCENT EXCEEDS	36		77		54	
50 PERCENT EXCEEDS	27		30		24	
90 PERCENT EXCEEDS	24		24		5.1	

a From rating curve extended above 580 ft³/s on basis of slope-conveyance computation.

