

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. Elevation of gage is 280 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Lake Galena (Peace Valley Reservoir). Several measurements of water temperature were made during the year. Satellite 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	23	24	25	26	26	27	23	30	31	31	27
2	26	24	24	23	32	25	27	22	30	31	30	27
3	26	24	24	26	29	25	27	23	30	31	30	26
4	26	23	24	23	27	28	27	23	30	31	31	26
5	26	23	24	23	27	26	27	23	31	30	30	26
6	26	24	24	22	27	26	26	24	31	31	31	26
7	26	24	24	23	27	26	26	25	31	33	30	26
8	26	24	23	25	26	26	25	24	33	34	28	26
9	24	23	22	23	26	26	26	23	33	33	e30	26
10	27	23	23	22	25	25	27	24	33	32	e30	27
11	25	24	23	22	24	24	26	26	32	30	32	26
12	24	24	23	23	25	24	26	25	32	32	30	25
13	24	24	22	23	26	24	26	23	31	31	29	25
14	24	23	23	23	24	24	26	24	28	31	30	26
15	24	22	24	26	24	25	24	24	28	32	27	27
16	24	25	22	25	24	26	25	25	29	34	27	712
17	24	24	24	23	24	27	24	27	28	36	26	1040
18	24	23	24	34	31	26	23	27	28	34	28	747
19	25	24	23	26	27	26	21	26	28	32	29	163
20	26	26	24	25	26	25	23	26	29	31	27	74
21	28	23	23	24	26	41	24	26	27	30	27	50
22	26	23	23	24	25	89	22	27	28	27	25	41
23	26	23	24	24	24	84	24	26	29	28	26	33
24	26	23	24	34	24	63	23	26	29	29	26	27
25	26	24	24	27	24	48	24	26	32	28	26	26
26	25	25	23	26	24	38	23	25	32	29	29	26
27	27	35	24	26	24	33	23	26	32	32	28	26
28	25	28	24	26	25	29	23	27	32	30	27	25
29	25	24	24	26	---	27	23	27	32	32	25	25
30	25	24	24	26	---	27	23	26	32	32	25	26
31	24	---	24	26	---	27	---	28	---	31	25	---
TOTAL	786	726	729	774	723	1016	741	777	910	968	875	3433
MEAN	25.4	24.2	23.5	25.0	25.8	32.8	24.7	25.1	30.3	31.2	28.2	114
MAX	28	35	24	34	32	89	27	28	33	36	32	1040
MIN	24	22	22	22	24	24	21	22	27	27	25	25
(≠)	-12.0	-25.5	-20.2	+41.3	+2.2	+17.2	+0.1	-1.2	-2.4	-2.5	+4.6	-0.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1999, BY WATER YEAR (WY)

MEAN	23.2	24.7	51.8	36.4	27.9	39.6	31.9	28.1	20.7	19.4	16.3	23.5
MAX	81.8	86.4	145	80.4	58.8	123	80.0	81.1	44.3	55.3	41.7	114
(WY)	1997	1996	1997	1996	1988	1994	1996	1998	1989	1988	1994	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.

e Estimated.

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SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1986 - 1999	
ANNUAL TOTAL	13092		12458			
ANNUAL MEAN	35.9		34.1		29.2	
HIGHEST ANNUAL MEAN					44.3	1996
LOWEST ANNUAL MEAN					13.1	1992
HIGHEST DAILY MEAN	391	May 9	1040	Sep 17	1040	Sep 17 1999
LOWEST DAILY MEAN	22	Jan 13-15 ^a	21	Apr 19	3.1	Dec 22 1989
ANNUAL SEVEN-DAY MINIMUM	23	Dec 8	23	Dec 8	3.1	Dec 22 1989
INSTANTANEOUS PEAK FLOW			b 2340	Sep 16	b 2340	Sep 16 1999
INSTANTANEOUS PEAK STAGE			4.96	Sep 16	4.96	Sep 16 1999
10 PERCENT EXCEEDS	58		32		60	
50 PERCENT EXCEEDS	26		26		20	
90 PERCENT EXCEEDS	23		23		4.8	

^a Also Mar. 6, 7, Nov. 15, and Dec. 9, 13, 16.

^b From rating curve extended above 270 ft³/s on basis of slope-conveyance computation.

