

LEHIGH RIVER BASIN

01451650 LITTLE LEHIGH CREEK AT TENTH STREET BRIDGE AT ALLENTOWN, PA

LOCATION.--Lat 40°35'47", long 75°28'28", Lehigh County, Hydrologic Unit 02040106, on left bank at bridge on Tenth Street, and 0.9 mi upstream from confluence with Jordan Creek in Allentown, Pa.

DRAINAGE AREA.--98.2 mi².

PERIOD OF RECORD.--October 1986 to current year.

REVISED RECORDS.--WRD PA-98-1: 1997(M).

GAGE.--Water-stage recorder. Crest-stage gage and concrete control. Datum of gage is 245.63 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Diversion upstream for municipal water supply by city of Allentown. Several measurements of water temperature were made during the year. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by city of Allentown.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Jan. 18	2030	1,750	5.14	Sept. 16	2230	*5,170	*8.06

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	55	52	59	62	89	139	104	82	65	49	23	38
2	62	60	53	46	242	110	119	85	66	48	43	44
3	63	62	52	406	197	99	108	85	87	49	27	43
4	57	62	61	170	140	145	99	86	90	44	25	25
5	55	68	64	78	124	111	102	88	67	49	38	33
6	55	75	52	59	105	124	102	83	55	48	32	43
7	52	80	48	50	97	127	102	83	61	39	23	41
8	311	56	50	46	100	94	100	99	64	41	38	42
9	215	58	55	179	108	91	122	92	65	41	42	61
10	331	71	53	177	100	92	165	82	67	52	26	97
11	141	91	61	79	92	91	126	81	78	45	43	45
12	104	75	64	58	101	95	143	88	54	35	36	27
13	87	75	40	58	137	95	123	87	57	45	26	33
14	81	82	43	64	107	84	95	75	68	44	167	36
15	75	51	54	85	92	99	92	70	87	42	62	72
16	81	55	50	87	95	100	127	68	77	38	31	1780
17	82	67	50	73	92	99	132	70	59	38	30	1340
18	60	61	59	614	149	121	93	71	81	34	34	208
19	64	62	65	830	129	110	92	221	80	35	45	108
20	72	77	43	194	121	86	113	149	58	43	27	84
21	68	81	41	144	99	102	114	92	59	44	39	92
22	69	49	50	190	88	368	104	81	67	48	51	118
23	76	59	47	165	89	185	131	142	59	35	37	96
24	72	71	57	334	102	132	139	198	58	34	33	71
25	54	70	62	255	86	116	96	125	63	39	30	71
26	58	127	47	158	85	116	95	97	59	48	64	69
27	67	69	33	123	86	113	106	91	38	27	52	68
28	69	55	41	109	106	112	97	85	48	29	52	65
29	71	54	51	102	---	113	84	86	55	34	37	73
30	74	53	53	98	---	109	82	84	51	43	32	297
31	73	---	53	92	---	104	---	64	---	30	40	---
TOTAL	2854	2028	1611	5185	3158	3682	3307	2990	1943	1270	1285	5220
MEAN	92.1	67.6	52.0	167	113	119	110	96.5	64.8	41.0	41.5	174
MAX	331	127	65	830	242	368	165	221	90	52	167	1780
MIN	52	49	33	46	85	84	82	64	38	27	23	25
(†)	13.7	13.6	12.4	9.2	11.8	12.2	12.3	13.2	15.7	16.9	14.7	11.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

MEAN	88.6	103	133	142	132	178	177	147	112	103	85.6	107
MAX	210	192	435	292	219	415	355	236	184	174	147	368
(WY)	1997	1997	1997	1996	1996	1994	1994	1989	1989	1994	1994	1987
MIN	48.5	64.1	52.0	53.1	48.9	71.7	64.4	66.7	64.8	41.0	41.5	46.7
(WY)	1993	1998	1999	1992	1992	1992	1992	1992	1999	1999	1999	1995

† Diversion for municipal supply of city of Allentown, equivalent in cubic feet per second.

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SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1987 - 1999	
ANNUAL TOTAL	45723		34533			
ANNUAL MEAN	125		94.6		126	
HIGHEST ANNUAL MEAN					192	1994
LOWEST ANNUAL MEAN					64.6	1992
HIGHEST DAILY MEAN	619	May 12	1780	Sep 16	5200	Sep 9 1987
LOWEST DAILY MEAN	33	Dec 27	23	Aug 1,7	23	Aug 1,7 1999
ANNUAL SEVEN-DAY MINIMUM	48	Dec 21	30	Aug 1	30	Aug 1 1999
INSTANTANEOUS PEAK FLOW			a5170	Sep 16	a7370	Sep 9 1987
INSTANTANEOUS PEAK STAGE			8.06	Sep 16	9.47	Sep 9 1987
10 PERCENT EXCEEDS	214		139		210	
50 PERCENT EXCEEDS	100		71		98	
90 PERCENT EXCEEDS	53		38		53	

a From rating curve extended above 1,870 ft³/s on the basis of slope-area measurement at gage height 8.06 ft.

