

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 National Geodetic Vertical Datum of 1929.

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)
May 13	2130	*1,210	*4.50	June 28	0015	1,110	4.37

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	55	61	38	59	43	67	78	87	91	50	113
2	64	53	47	40	60	45	60	202	67	90	59	105
3	70	52	46	45	55	124	59	147	59	84	64	58
4	70	52	47	41	54	72	56	90	61	81	54	44
5	56	52	47	43	45	44	57	81	65	86	50	48
6	65	61	47	43	45	44	59	79	119	85	65	57
7	63	61	48	49	45	44	48	77	312	76	53	58
8	57	48	56	44	50	45	48	72	117	74	49	44
9	59	50	95	45	45	45	50	95	81	74	57	42
10	67	52	66	45	43	50	62	88	78	77	49	43
11	62	54	47	54	48	45	58	78	75	77	43	42
12	50	54	47	59	44	42	45	81	158	78	43	47
13	53	57	48	54	43	51	50	370	194	68	43	47
14	53	56	66	50	44	47	59	467	145	66	43	31
15	77	53	67	49	43	35	156	165	115	67	43	48
16	60	60	48	49	44	38	79	109	86	69	43	62
17	67	62	49	48	44	41	56	97	80	68	41	52
18	64	49	79	49	41	66	48	348	81	57	50	49
19	52	49	65	46	41	62	52	212	211	87	48	34
20	54	53	63	49	42	157	53	137	122	104	39	36
21	54	62	60	47	43	138	47	109	87	62	50	37
22	53	68	47	46	42	75	61	105	70	54	56	37
23	55	55	46	45	42	58	56	108	74	71	39	42
24	54	46	62	68	42	57	53	108	78	77	48	39
25	54	89	64	82	43	56	63	104	71	65	51	38
26	58	93	58	61	43	65	63	83	78	74	44	52
27	58	52	46	51	45	115	46	76	280	59	43	222
28	50	51	44	51	43	69	158	83	368	54	41	95
29	52	51	53	48	---	61	205	81	131	60	96	73
30	52	61	56	47	---	57	101	82	93	54	66	59
31	53	---	44	49	---	58	---	71	---	51	55	---
TOTAL	1820	1711	1719	1535	1278	1949	2075	4083	3643	2240	1575	1754
MEAN	58.7	57.0	55.5	49.5	45.6	62.9	69.2	132	121	72.3	50.8	58.5
MAX	77	93	95	82	60	157	205	467	368	104	96	222
MIN	50	46	44	38	41	35	45	71	59	51	39	31
(†)	10.3	9.9	9.5	18.0	16.7	10.3	9.9	8.5	10.4	11.4	12.1	10.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	85.0	96.1	123	127	124	170	168	146	117	102	85.4	101				
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	57.0	52.0	49.5	45.6	62.9	64.4	66.7	64.8	41.0	41.5	46.7				
(WY)	1993	2002	1999	2002	2002	2002	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1987 - 2002	
ANNUAL TOTAL	38847		25382		120	
ANNUAL MEAN	106		69.5		192	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					64.6	
HIGHEST DAILY MEAN	949	Jun 23	467	May 14	5200	Sep 9 1987
LOWEST DAILY MEAN	44	Dec 28	31	Sep 14	23	Aug 1 1999
ANNUAL SEVEN-DAY MINIMUM	48	Dec 2	38	Sep 19	30	Aug 1 1999
MAXIMUM PEAK FLOW			1210	May 13	a7370	Sep 9 1987
MAXIMUM PEAK STAGE			4.50	May 13	9.47	Sep 9 1987
10 PERCENT EXCEEDS	159		104		199	
50 PERCENT EXCEEDS	95		56		94	
90 PERCENT EXCEEDS	53		43		52	

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

