

## LEHIGH RIVER BASIN

## 01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA

**LOCATION.**--Lat 41°06'17", long 75°43'57", Luzerne County, Hydrologic Unit 02040106, on right bank 0.7 mi downstream from Francis E. Walter Reservoir, 2.0 mi upstream from Fawn Run, and 4.0 mi northeast of White Haven.

**DRAINAGE AREA.**--290 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1957 to current year. Prior to October 1962 published as "*below Bear Creek Reservoir*", October 1962 to September 1971 published as "*below Francis E. Walter Reservoir*."

**GAGE.**--Water-stage recorder. Datum of gage is 1,212.95 ft above sea level (levels by U.S. Army Corps of Engineers).

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Flow regulated since February 1961 by Francis E. Walter Reservoir (station 01447780) 0.7 mi upstream. Satellite and landline telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of August 1955 reached a discharge of 54,200 ft<sup>3</sup>/s based on slope-area measurement at site 4.9 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	915	293	1500	376	263	3030	563	411	355	501	816	133
2	1260	294	730	373	e260	2110	568	415	373	412	1090	134
3	1260	1330	597	373	e260	1440	568	415	409	348	1010	159
4	786	1520	568	373	263	1390	694	415	363	348	836	177
5	611	990	568	453	263	1300	890	460	365	352	664	135
6	689	822	569	512	260	928	768	447	606	328	381	125
7	625	792	630	446	259	672	569	305	1460	307	425	136
8	779	481	641	399	e220	690	572	198	1790	257	515	114
9	1200	338	585	394	e180	817	745	216	1310	164	513	90
10	1190	358	508	259	159	843	941	302	900	164	411	83
11	1170	368	464	628	178	814	1160	960	805	164	353	92
12	2030	368	465	832	e290	877	1250	1310	901	158	353	98
13	2540	368	421	747	e290	1750	1140	1070	1380	170	353	123
14	1540	368	394	469	361	2000	817	939	1750	176	289	141
15	1280	368	619	290	569	1250	689	878	1680	177	243	347
16	1240	358	916	298	537	713	691	659	1380	312	247	520
17	1190	313	833	301	399	1040	686	495	841	553	244	297
18	1120	284	699	366	399	1490	835	426	659	526	243	224
19	963	304	685	379	399	1450	885	648	809	303	163	167
20	744	319	570	314	399	1150	682	985	996	247	109	167
21	649	319	581	284	399	915	617	1050	756	285	109	167
22	467	156	637	288	382	915	995	980	756	276	111	160
23	378	56	593	284	353	777	1110	1010	944	199	140	164
24	378	59	558	284	336	598	1060	1330	839	193	158	150
25	323	61	545	284	424	565	893	1520	703	176	236	129
26	293	371	532	284	893	572	656	1060	745	167	277	123
27	293	698	339	e280	1100	602	573	868	810	167	155	123
28	280	1770	210	e280	2410	1000	611	691	810	179	155	123
29	293	2880	217	e280	3510	1450	588	594	738	456	155	108
30	293	2570	309	e280	---	1040	467	572	607	549	155	97
31	293	---	378	275	---	644	---	398	---	699	141	---
TOTAL	27072	19576	17861	11685	16015	34832	23283	22027	26840	9313	11050	4806
MEAN	873	653	576	377	552	1124	776	711	895	300	356	160
MAX	2540	2880	1500	832	3510	3030	1250	1520	1790	699	1090	520
MIN	280	56	210	259	159	565	467	198	355	158	109	83

e Estimated.

LEHIGH RIVER BASIN

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	449	650	701	658	663	1030	1128	768	521	347	259	329
MAX (WY)	1435	1488	2079	2596	1542	2018	3198	1968	1359	1165	1153	1784
MIN (WY)	1978	1986	1997	1996	1981	1977	1993	1989	1972	1973	1969	1987
MIN (WY)	68.5	68.1	142	131	197	326	341	313	135	66.1	55.9	43.2
(WY)	1964	1965	1999	1981	1980	1981	1966	1962	1962	1999	1999	1964

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1961 - 2000

ANNUAL TOTAL		187513		224360								
ANNUAL MEAN		514		613						625		
HIGHEST ANNUAL MEAN										954		1996
LOWEST ANNUAL MEAN										289		1965
HIGHEST DAILY MEAN				5730	Jan 26		3510	Feb 29		11000		Jan 29 1996
LOWEST DAILY MEAN				45	Aug 14		56	Nov 23		22		Jul 20 1965 <sup>a</sup>
ANNUAL SEVEN-DAY MINIMUM				47	Aug 13		105	Sep 7		33		Jul 19 1965
INSTANTANEOUS PEAK FLOW							3530	Feb 28		11700		Apr 13 1993
INSTANTANEOUS PEAK STAGE							6.15	Feb 28		8.86		Apr 13 1993
INSTANTANEOUS LOW FLOW										<b>b</b> 1.3		Nov 14 1961
10 PERCENT EXCEEDS				1180			1240			1330		
50 PERCENT EXCEEDS				371			466			415		
90 PERCENT EXCEEDS				60			160			108		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	378	571	1002	692	678	790	1886	909	425	245	190	371
MAX (WY)	502	854	1504	778	1039	926	2536	1134	521	339	270	744
MIN (WY)	1960	1960	1958	1960	1960	1958	1958	1958	1960	1960	1960	1960
MIN (WY)	173	347	371	549	467	610	1262	520	310	195	129	135
(WY)	1958	1958	1959	1959	1959	1960	1959	1959	1959	1959	1959	1959

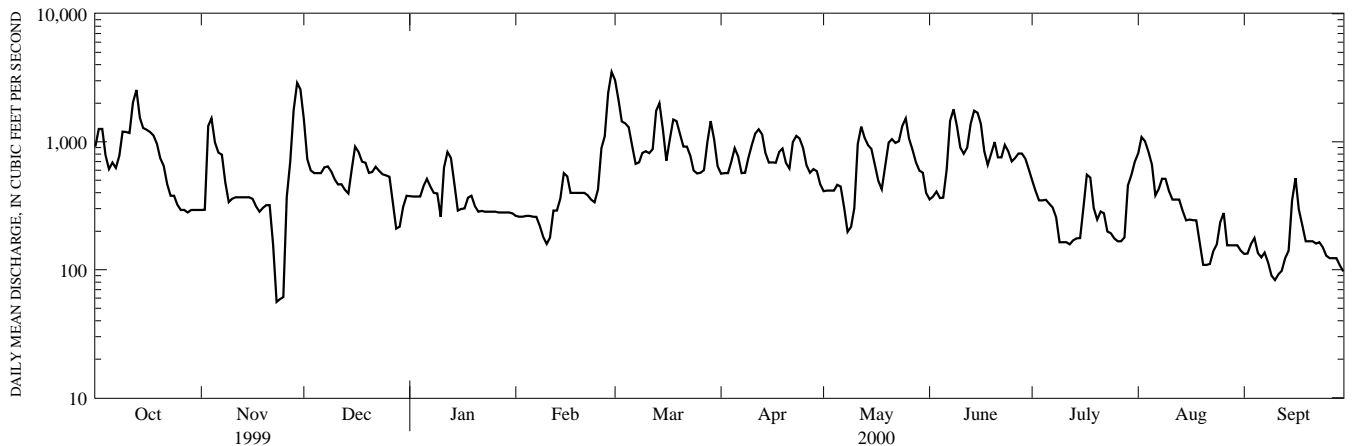
SUMMARY STATISTICS WATER YEARS 1958 - 1960

ANNUAL TOTAL ANNUAL MEAN	676	
HIGHEST ANNUAL MEAN	807	1960
LOWEST ANNUAL MEAN	478	1959
HIGHEST DAILY MEAN	10700	Dec 21 1957
LOWEST DAILY MEAN	50	Oct 4 1957
ANNUAL SEVEN DAY MINIMUM	63	Oct 1 1957
INSTANTANEOUS PEAK FLOW	<b>c</b> 13800	Dec 21 1957
INSTANTANEOUS PEAK STAGE	9.85	Dec 21 1957
ANNUAL RUNOFF (CFSM)	2.33	
ANNUAL RUNOFF (INCHES)	31.69	
10 PERCENT EXCEEDS	1390	
50 PERCENT EXCEEDS	440	
90 PERCENT EXCEEDS	141	

a Also July 22, 23, 1965.

b Result of shutoff at reservoir.

c From rating curve extended above 6,100 ft<sup>3</sup>/s.



1-YEAR HYDROGRAPH  
OCTOBER 1, 1999 TO SEPTEMBER 30, 2000

## LEHIGH RIVER BASIN

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to 1982.

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1988 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Interruptions in the record were due to malfunctions of the recording instrument.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 31.5°C, July 21, 1988; minimum, 0.0°C, many days during winters.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 24.5°C, Aug. 17; minimum, 0.0°C, many days during winter.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.5	14.5	14.5	9.0	8.0	8.5	6.0	2.5	4.5	1.0	.5	.5
2	15.0	14.5	14.5	9.5	9.0	9.5	2.5	2.0	2.0	1.0	.5	1.0
3	14.5	14.5	14.5	11.0	9.5	10.5	2.5	2.0	2.0	2.0	1.0	1.5
4	14.5	14.5	14.5	10.0	8.5	9.0	3.5	2.0	3.0	3.0	2.0	3.0
5	14.5	14.0	14.0	9.0	7.0	7.5	4.0	3.0	3.5	3.5	3.0	3.5
6	14.0	13.5	13.5	8.0	7.5	8.0	5.5	4.0	5.0	3.5	2.5	3.0
7	13.5	13.0	13.0	8.5	7.0	8.0	---	---	---	2.5	2.0	2.5
8	13.0	12.5	12.5	7.0	6.0	6.5	5.5	4.5	5.0	2.5	2.0	2.0
9	12.5	12.5	12.5	6.5	5.0	6.0	4.5	3.5	4.0	2.0	2.0	2.0
10	13.0	12.5	13.0	7.0	5.5	6.5	3.5	3.0	3.5	3.5	2.0	2.5
11	13.5	13.0	13.0	8.0	7.0	7.5	3.5	3.0	3.0	3.5	2.5	3.0
12	14.0	13.5	13.5	7.5	6.0	7.0	3.0	2.0	2.5	3.0	3.0	3.0
13	14.0	13.5	13.5	7.5	6.5	7.0	2.5	2.0	2.5	3.0	2.0	2.5
14	14.0	13.5	13.5	7.0	6.5	7.0	2.5	2.0	2.5	2.5	1.5	2.0
15	13.5	12.5	13.0	6.5	6.0	6.5	3.0	2.5	3.0	1.5	1.0	1.5
16	12.5	12.0	12.5	6.0	5.5	6.0	3.5	3.0	3.5	1.5	.5	1.0
17	12.5	12.0	12.0	5.5	3.0	4.0	3.5	2.5	3.0	1.0	.5	.5
18	13.0	12.5	13.0	4.0	2.5	3.0	2.5	2.5	2.5	.5	.5	.5
19	12.5	11.5	12.0	4.0	3.0	3.5	3.0	2.5	2.5	1.0	.5	.5
20	11.5	11.0	11.5	4.0	3.0	3.5	2.5	2.5	2.5	.5	.5	.5
21	11.0	10.0	10.5	5.0	4.0	4.5	3.0	2.5	3.0	.5	.0	.0
22	10.5	9.5	10.0	6.5	4.5	5.5	3.0	2.5	2.5	.5	.0	.0
23	9.5	9.0	9.5	6.5	5.0	5.5	2.5	1.5	2.0	.5	.0	.5
24	9.5	8.5	9.0	6.5	5.0	5.5	1.5	1.0	1.5	.5	.0	.5
25	8.5	8.0	8.5	5.5	5.0	5.5	1.0	1.0	1.0	.5	.0	.0
26	8.5	7.5	8.0	8.5	5.5	6.5	1.0	.5	.5	.5	.0	.0
27	8.5	8.0	8.0	9.0	8.5	9.0	.5	.5	.5	.5	.0	.0
28	9.0	7.0	7.5	9.5	9.0	9.0	.5	.5	.5	.5	.0	.0
29	8.0	7.0	7.5	9.0	8.0	8.5	.5	.5	.5	.5	.0	.0
30	8.0	7.5	7.5	8.0	6.0	7.0	.5	.5	.5	.5	.0	.0
31	8.5	8.0	8.0	---	---	---	.5	.5	.5	.5	.0	.0
MONTH	15.0	7.0	11.5	11.0	2.5	6.7	6.0	.5	2.4	3.5	.0	1.2

