

## 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 1998 TO SEPTEMBER 1999  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	147	221	81	806	632	662	339	159	64	97	113
2	90	147	221	81	726	758	596	310	174	64	85	138
3	74	147	221	81	1340	515	623	310	183	64	53	138
4	68	135	179	143	1610	1290	623	310	183	64	49	136
5	68	97	128	245	1120	1760	623	283	157	64	49	133
6	68	76	128	284	876	1280	584	267	138	64	49	133
7	72	76	153	258	876	1020	494	301	135	64	49	93
8	126	76	176	218	780	646	393	283	133	64	49	52
9	228	101	176	199	598	449	382	346	117	64	47	52
10	749	148	176	362	514	518	805	377	109	64	49	52
11	741	203	164	602	523	581	985	271	109	64	49	52
12	434	203	150	551	570	566	727	228	299	64	48	52
13	287	178	150	431	714	531	459	213	284	64	47	52
14	281	158	118	369	887	524	400	255	123	62	45	52
15	327	158	78	368	863	522	432	288	129	64	47	52
16	424	158	65	370	713	469	432	186	133	63	47	63
17	524	158	114	373	581	432	442	186	134	62	47	451
18	227	154	130	381	581	e540	451	186	136	62	47	672
19	180	150	100	1550	591	e620	551	219	137	63	47	95
20	160	150	100	2340	595	e620	550	369	138	62	47	95
21	147	147	126	1690	595	e620	503	426	138	60	48	95
22	147	147	144	1250	534	807	503	490	136	63	48	95
23	147	121	144	1260	396	1490	499	489	133	61	48	249
24	147	97	135	872	373	1430	559	491	135	60	75	803
25	147	109	128	3730	449	1260	581	494	138	60	106	1260
26	147	133	127	5730	365	967	580	447	401	66	81	916
27	147	183	125	4830	343	787	467	387	204	74	52	568
28	147	218	144	3290	343	798	389	424	78	64	53	568
29	147	221	145	1810	---	859	365	345	64	74	53	568
30	147	221	125	1220	---	926	342	155	64	100	52	568
31	147	---	106	1170	---	804	---	156	---	98	69	---
TOTAL	6845	4417	4397	36139	19262	25021	16002	9831	4601	2050	1732	8366
MEAN	221	147	142	1166	688	807	533	317	153	66.1	55.9	279
MAX	749	221	221	5730	1610	1760	985	494	401	100	106	1260
MIN	68	76	65	81	343	432	342	155	64	60	45	52

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 - 1999, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	439	650	704	665	666	1028	1137	770	512	348	257	334
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 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1961 - 1999

ANNUAL TOTAL	208682	138663	
ANNUAL MEAN	572	380	625
HIGHEST ANNUAL MEAN			954
LOWEST ANNUAL MEAN			289
HIGHEST DAILY MEAN	3850	Mar 11	5730
LOWEST DAILY MEAN	65	Dec 16	45
ANNUAL SEVEN-DAY MINIMUM	77	Oct 1	47
INSTANTANEOUS PEAK FLOW			5990
INSTANTANEOUS PEAK STAGE			7.08
INSTANTANEOUS LOW FLOW			b1.3
10 PERCENT EXCEEDS	1320	804	1330
50 PERCENT EXCEEDS	295	178	414
90 PERCENT EXCEEDS	100	61	107

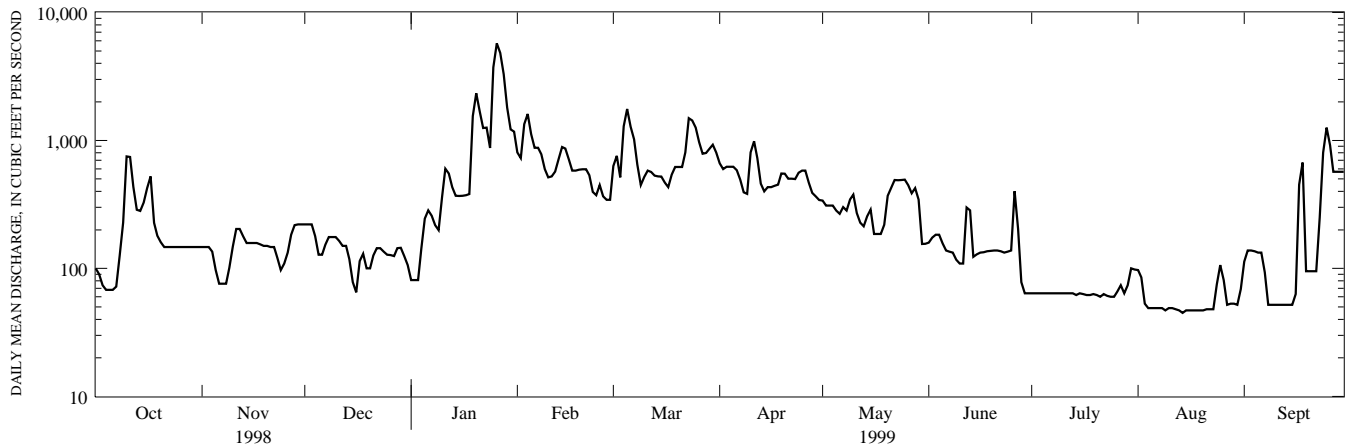
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	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
LOWEST ANNUAL MEAN	478
HIGHEST DAILY MEAN	10700
LOWEST DAILY MEAN	50
ANNUAL SEVEN DAY MINIMUM	63
INSTANTANEOUS PEAK FLOW	c13800
INSTANTANEOUS PEAK STAGE	9.85
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, 1998 TO SEPTEMBER 30, 1999

## 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, 26.5°C, Aug. 9; minimum, 0.0°C, Jan. 6-17, 21.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.0	16.5	17.0	9.5	8.0	8.5	6.0	4.5	5.0	2.0	.5	1.0
2	18.0	14.5	16.0	9.0	8.0	8.5	5.5	5.0	5.0	1.5	.5	1.0
3	15.5	14.0	14.5	9.0	7.5	8.0	6.0	5.0	5.5	1.5	.5	1.0
4	14.0	13.5	13.5	8.5	6.5	7.5	6.5	5.5	5.5	1.0	.5	.5
5	15.5	12.5	13.5	8.0	5.5	7.0	6.0	5.5	6.0	.5	.5	.5
6	15.5	12.0	13.5	6.5	5.5	6.0	6.5	5.5	6.0	.5	.0	.5
7	14.0	13.0	13.5	6.5	5.5	6.0	7.5	6.0	6.5	.5	.0	.5
8	14.5	13.5	14.0	6.0	5.5	6.0	7.0	6.5	6.5	.5	.0	.5
9	14.5	14.0	14.5	6.0	5.0	5.5	7.5	6.5	7.0	.5	.0	.5
10	14.5	14.0	14.5	6.0	5.5	6.0	7.0	6.0	6.5	.5	.0	.0
11	14.5	13.5	14.0	6.5	5.5	6.0	6.0	5.5	5.5	.0	.0	.0
12	14.0	13.0	13.5	6.0	5.5	6.0	6.0	4.5	5.0	.0	.0	.0
13	13.5	13.5	13.5	6.0	5.5	6.0	5.5	4.5	5.0	.0	.0	.0
14	14.0	13.5	13.5	6.5	5.0	5.5	4.5	3.5	4.0	.0	.0	.0
15	14.0	13.0	13.5	6.5	5.5	6.0	4.5	2.5	3.5	.0	.0	.0
16	13.5	12.5	13.0	6.0	5.5	5.5	4.0	2.5	3.0	.5	.0	.0
17	13.0	11.5	12.5	6.0	5.5	5.5	3.5	2.0	3.0	.5	.0	.0
18	13.0	11.5	12.0	6.5	5.5	5.5	3.5	2.0	2.5	---	---	---
19	13.0	12.0	12.0	6.0	5.5	5.5	3.5	2.0	3.0	---	---	---
20	13.0	12.0	12.5	5.5	5.5	5.5	3.0	2.5	3.0	---	---	---
21	12.5	11.5	12.0	5.5	5.0	5.0	3.5	3.0	3.0	1.0	.0	.5
22	11.5	10.5	11.0	6.0	4.5	5.0	3.5	2.0	3.0	2.0	1.0	1.5
23	11.0	9.5	10.0	6.0	4.5	5.0	---	---	---	2.5	2.0	2.0
24	11.0	9.5	10.0	6.0	4.5	5.0	---	---	---	3.5	2.5	3.0
25	11.0	9.5	10.0	6.0	4.5	5.0	3.0	2.0	2.5	3.5	2.0	2.5
26	11.0	9.5	10.0	5.0	4.5	5.0	3.0	2.0	2.5	2.0	2.0	2.0
27	---	---	---	5.0	4.5	5.0	3.0	2.0	2.5	2.0	1.5	2.0
28	11.0	10.5	10.5	5.0	4.5	4.5	3.0	2.0	2.5	2.0	1.5	2.0
29	11.0	10.5	11.0	5.0	4.5	4.5	2.5	2.0	2.0	3.0	2.0	2.5
30	11.0	9.5	10.0	5.0	4.5	4.5	2.0	1.5	2.0	2.5	1.5	2.0
31	10.5	8.5	9.5	---	---	---	1.5	1.0	1.5	2.0	1.5	1.5
MONTH	18.0	8.5	12.6	9.5	4.5	5.8	7.5	1.0	4.1	3.5	.0	1.0

