

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 mi².

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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. 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 ft³/s based on slope-area measurement at site 4.9 mi downstream.

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	146	78	468	173	575	170	288	1500	810	539	239	185
2	122	78	597	215	191	170	173	1290	810	406	336	144
3	109	78	542	241	200	171	175	1110	645	368	503	144
4	109	78	370	215	194	173	176	1000	541	368	503	119
5	264	94	297	196	246	173	416	1000	541	275	336	102
6	280	106	266	196	274	175	616	661	505	221	239	146
7	72	106	235	196	167	176	616	450	1470	221	239	193
8	72	106	225	196	175	176	461	452	787	185	239	193
9	72	89	224	196	176	176	378	535	793	142	326	206
10	91	78	224	225	177	180	528	623	1840	152	497	224
11	104	78	213	251	181	340	510	623	2080	150	494	224
12	104	78	206	251	183	535	449	623	1080	189	323	224
13	104	78	206	251	185	561	450	1280	708	247	282	224
14	119	78	233	251	186	503	449	3160	692	247	329	224
15	142	78	251	251	187	434	980	3270	611	223	308	225
16	150	78	254	215	189	410	1410	1740	981	210	352	193
17	150	78	322	196	191	410	999	1070	981	210	485	170
18	150	78	402	180	193	510	768	1000	933	226	484	170
19	126	78	595	148	193	507	667	2290	745	348	245	170
20	206	78	588	128	193	467	455	2650	593	516	100	384
21	102	78	435	130	188	473	455	1370	641	516	100	464
22	102	78	353	170	183	479	603	1000	793	343	100	173
23	102	78	350	219	183	479	689	757	793	247	100	173
24	102	78	348	274	183	479	541	585	541	247	100	130
25	103	79	348	333	171	288	449	557	315	247	100	100
26	103	204	269	353	168	190	623	559	255	339	100	100
27	103	303	193	350	170	195	720	561	678	516	100	142
28	102	332	171	313	170	196	722	1500	742	516	100	170
29	102	278	173	293	---	295	1730	7830	645	338	100	170
30	102	223	173	400	---	501	1870	4430	645	241	147	226
31	87	---	173	664	---	503	---	1130	---	239	243	---
TOTAL	3802	3402	9704	7670	5672	10495	19366	46606	24194	9232	8149	5712
MEAN	123	113	313	247	203	339	646	1503	806	298	263	190
MAX	280	332	597	664	575	561	1870	7830	2080	539	503	464
MIN	72	78	171	128	167	170	173	450	255	142	100	100

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	434	626	690	639	647	1006	1116	775	525	342	256	322
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	311	135	66.1	55.9	43.2
(WY)	1964	1965	1999	1981	1980	1981	1966	2001	1962	1999	1999	1964

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1961 - 2002

ANNUAL TOTAL		128477		154004								
ANNUAL MEAN		352		422					614			
HIGHEST ANNUAL MEAN									954			1996
LOWEST ANNUAL MEAN									289			1965
HIGHEST DAILY MEAN				2300	Apr 11		7830	May 29	11000	Jan 29		1996
LOWEST DAILY MEAN				72	Aug 7 ^a		72	Oct 7-9	22	Jul 20		1965 ^c
ANNUAL SEVEN-DAY MINIMUM				72	Aug 28		78	Nov 10 ^b	33	Jul 19		1965
MAXIMUM PEAK FLOW							8240	May 29	11700	Apr 13		1993
MAXIMUM PEAK STAGE							7.82	May 29	8.86	Apr 13		1993
INSTANTANEOUS LOW FLOW									d1.3	Nov 14		1961
10 PERCENT EXCEEDS			723			789			1310			
50 PERCENT EXCEEDS			237			241			405			
90 PERCENT EXCEEDS			78			100			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
(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
MAXIMUM PEAK FLOW	f13800	Dec 21 1957
MAXIMUM 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	

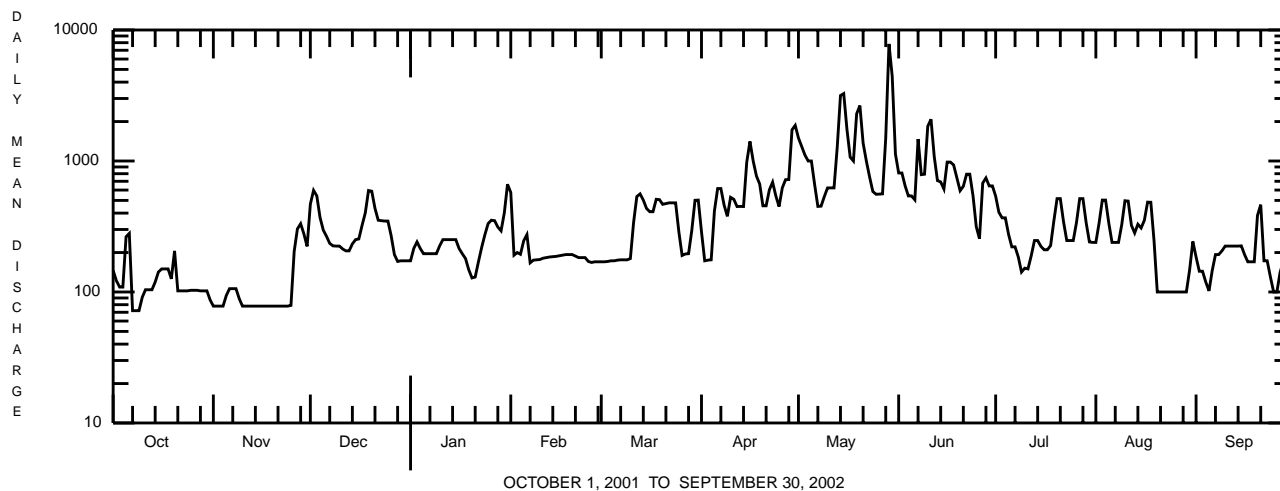
^a Also Aug. 8, 28-31, Sept. 1-3, Oct. 7-9.

^b Also several additional 7-day periods during Nov. 2001.

^c Also July 22, 23, 1965.

^d Result of shutoff at reservoir.

^f From rating curve extended above 6,100 ft³/s.



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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.--Water temperature records rated good.

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, 26.0°C, Aug. 19; minimum, 0.0°C, many days during winter.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	13.0	13.5	9.5	7.5	8.0	9.5	8.0	8.5	1.0	0.5	0.5
2	15.0	13.0	13.5	9.0	7.5	8.5	9.5	8.5	9.0	1.0	0.5	0.5
3	15.0	13.0	13.5	10.0	8.0	8.5	8.5	7.0	8.0	1.0	0.5	0.5
4	15.0	13.0	14.0	10.0	8.0	8.5	7.5	6.0	7.0	0.5	0.5	0.5
5	15.5	13.5	14.5	9.5	8.5	9.0	7.0	6.5	7.0	1.0	0.5	0.5
6	16.5	13.5	15.0	10.0	8.0	9.0	7.5	7.0	7.0	1.0	0.0	0.5
7	14.5	12.5	13.5	9.0	8.0	8.5	8.0	7.5	7.5	0.5	0.5	0.5
8	13.5	10.5	12.0	9.0	7.5	8.0	7.5	7.0	7.5	1.0	0.5	0.5
9	12.5	10.0	11.0	9.0	7.5	8.0	7.0	6.0	6.5	0.5	0.5	0.5
10	12.0	10.0	10.5	9.0	7.5	8.0	6.0	4.5	5.5	1.0	0.5	0.5
11	12.5	10.5	11.0	8.5	7.0	7.5	6.0	5.0	5.5	0.5	0.5	0.5
12	12.5	11.0	11.5	7.5	6.0	6.5	5.5	4.5	5.0	1.0	0.5	0.5
13	13.5	11.5	12.0	7.0	5.5	6.0	4.5	4.5	4.5	0.5	0.5	0.5
14	13.0	12.0	12.5	6.5	5.0	5.5	5.0	4.5	4.5	0.5	0.5	0.5
15	14.0	12.5	13.0	6.5	5.0	5.5	5.0	4.5	5.0	0.5	0.5	0.5
16	14.0	12.5	13.0	7.0	5.5	6.0	5.5	5.0	5.0	0.5	0.5	0.5
17	13.0	12.0	12.5	7.0	5.5	6.0	5.0	4.5	4.5	1.0	0.5	0.5
18	12.0	10.5	11.5	7.0	5.5	6.0	4.5	4.5	4.5	1.0	0.0	0.5
19	11.5	9.5	10.5	7.0	6.0	6.0	4.5	4.0	4.5	0.5	0.0	0.5
20	12.0	9.5	10.5	7.0	6.0	6.5	4.5	4.0	4.0	1.0	0.5	0.5
21	11.5	9.5	10.5	7.0	5.5	6.0	4.0	3.5	4.0	0.5	0.5	0.5
22	11.5	10.0	10.5	6.5	5.0	5.5	3.5	2.5	3.0	1.0	0.0	0.5
23	11.5	10.5	11.0	6.5	5.0	5.5	2.5	2.5	2.5	1.0	0.5	0.5
24	12.5	11.0	11.5	6.0	5.5	5.5	2.5	2.5	2.5	0.5	0.5	0.5
25	12.5	11.5	11.5	6.0	5.5	6.0	2.5	2.0	2.5	1.0	0.5	1.0
26	12.0	11.0	11.5	6.5	6.0	6.5	2.5	2.0	2.0	1.5	1.0	1.0
27	11.5	9.5	10.5	7.0	6.5	6.5	2.5	2.0	2.0	1.5	1.0	1.0
28	10.0	8.5	9.5	8.0	7.0	7.5	2.5	1.5	2.0	2.0	1.0	1.5
29	9.5	7.5	8.5	7.5	7.5	7.5	2.0	1.5	1.5	2.0	1.5	1.5
30	9.5	7.5	8.5	8.0	7.5	8.0	1.5	1.0	1.0	2.5	1.5	2.0
31	8.5	7.5	8.0	---	---	---	1.5	0.5	1.0	3.0	2.5	2.5
MONTH	16.5	7.5	11.6	10.0	5.0	7.0	9.5	0.5	4.7	3.0	0.0	0.7

