LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°07'49", long 75°37'33", Monroe County, Hydrologic Unit 02040106, on left bank 75 ft upstream from bridge on State Highway 115, at Stoddartsville, 1.9 mi upstream from Tobyhanna Creek, and 4.0 mi southwest of Thornhurst.

DRAINAGE AREA.--91.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WSP 1382: 1947, 1951.

GAGE.--Water-stage recorder. Datum of gage is 1,463.81 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, nonrecording gage at site 350 ft downstream at datum 2.14 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 22, 1942, reached a stage of 12.03 ft, from floodmark, present site and datum, discharge, 15,700 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)
Mar. 22	0100	1,880	4.33
June 1	1500	2,140	4.64
June 22	0945	*2,800	*5.44
Sept. 16	0445	1,450	3.76
Sept. 23	1600	2,150	4.65

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	144	185	326	e110	158	493	136	1490	212	74	130
2	47	136	166	594	e110	179	579	133	1050	186	85	400
3	41	126	149	471	e110	e260	611	127	618	163	77	334
4	48	119	146	408	e160	e220	499	118	540	146	205	311
5	52	115	152	345	e200	168	480	114	451	133	255	246
6	49	158	158	310	191	181	446	114	364	121	322	199
7	40	158	149	284	166	e180	396	114	427	131	256	168
8	33	140	e130	268	146	e170	367	128	546	154	177	142
9	30	126	e120	257	143	165	343	150	434	126	135	128
10	29	119	128	254	e130	156	336	139	354	118	256	114
11	286	119	174	232	e120	153	360	129	302	132	450	106
12	556	142	e420	213	e110	140	377	191	327	133	654	99
13	331	242	387	198	e110	141	337	157	318	110	380	96
14	215	202	516	178	e110	144	298	145	310	100	270	105
15	151	173	560	177	e110	145	272	130	477	89	213	646
16	389	172	439	e170	e100	205	255	122	347	82	220	1230
17	803	427	345	e160	e100	371	242	119	270	79	223	635
18	464	478	288	e160	188	607	234	112	291	76	195	410
19	319	379	258	e150	171	729	233	105	275	80	183	e360
20	254	320	455	e150	137	718	216	98	404	74	195	e340
21	206	310	620	e150	125	1450	206	113	1960	72	182	e320
22	172	324	474	e150	156	1670	224	113	2640	184	164	e300
23	145	345	394	e140	284	1340	205	107	1570	187	152	1410
24	128	296	332	e140	273	974	175	120	892	144	138	1260
25	125	266	e300	e130	234	771	155	132	606	112	129	719
26	251	243	346	e130	e200	680	164	212	462	94	121	520
27	249	236	304	e130	183	634	202	227	372	84	101	426
28	198	214	270	e140	168	515	169	175	304	145	94	668
29	170	198	247	e130	---	536	152	147	256	111	84	525
30	161	190	226	e120	---	722	144	131	229	91	92	395
31	154	---	225	e110	---	594	---	166	---	76	84	---
TOTAL	6151	6617	9063	6775	4345	15076	9170	4224	18886	3745	6166	12742
MEAN	198	221	292	219	155	486	306	136	630	121	199	425
MAX	803	478	620	594	284	1670	611	227	2640	212	654	1410
MIN	29	115	120	110	100	140	144	98	229	72	74	96
CFSM	2.16	2.41	3.19	2.38	1.69	5.30	3.33	1.49	6.87	1.32	2.17	4.63
IN.	2.50	2.68	3.68	2.75	1.76	6.12	3.72	1.71	7.66	1.52	2.50	5.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2003, BY WATER YEAR (WY)

MEAN	118	178	213	195	197	306	353	252	167	107	90.2	90.1
MAX	613	439	561	665	709	577	867	604	655	528	1101	511
(WY)	1956	1973	1974	1996	1981	1977	1993	1989	1972	1947	1955	1987
MIN	14.1	17.1	35.5	18.3	62.2	131	135	92.9	43.0	19.8	14.2	9.18
(WY)	1964	1965	1981	1981	1980	1989	1995	1995	1962	1965	1964	1964

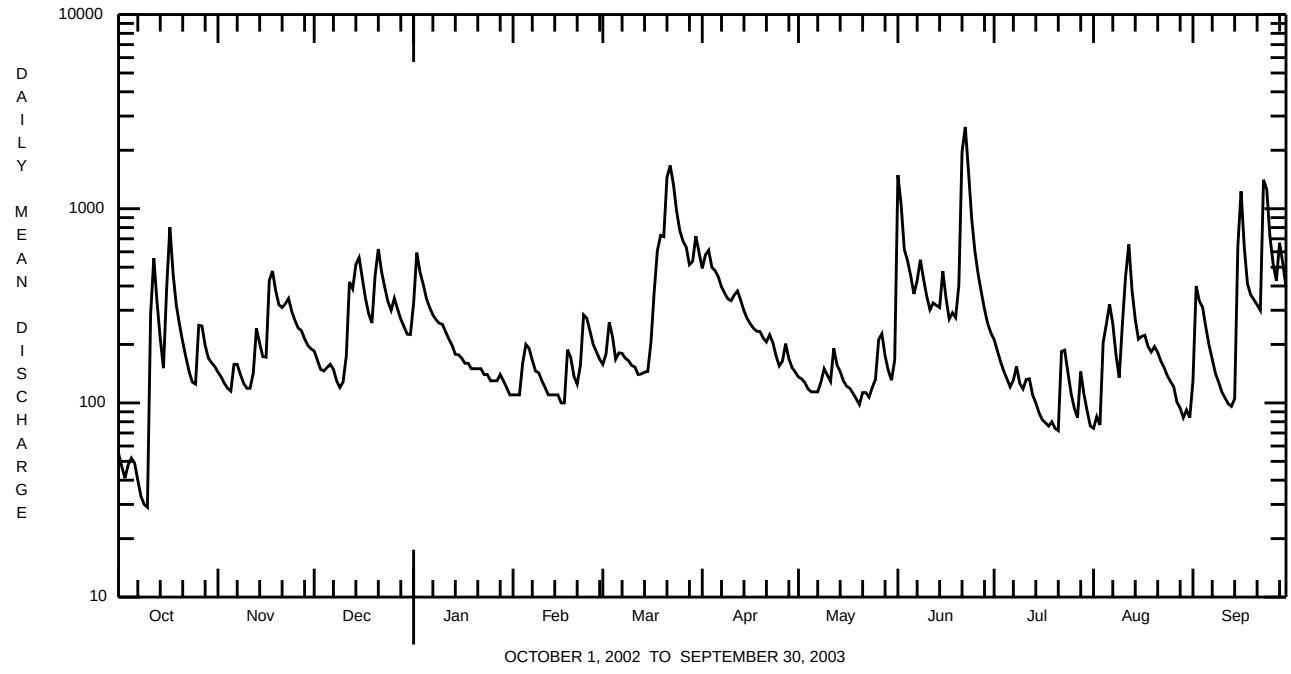
e Estimated.

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1944 - 2003	
ANNUAL TOTAL	68228		102960			
ANNUAL MEAN	187		282		189	
HIGHEST ANNUAL MEAN					282	2003
LOWEST ANNUAL MEAN					86.2	1965
HIGHEST DAILY MEAN	2020	May 29	2640	Jun 22	18900	Aug 19 1955
LOWEST DAILY MEAN	12	Sep 12,13	29	Oct 10	7.0	Sep 26 1964
ANNUAL SEVEN-DAY MINIMUM	13	Sep 8	40	Oct 4	7.4	Sep 21 1964
MAXIMUM PEAK FLOW			**a**2800	Jun 22	**a**31900	Aug 19 1955
MAXIMUM PEAK STAGE			5.44	Jun 22	**b**16.37	Aug 19 1955
INSTANTANEOUS LOW FLOW					7.0	Sep 26 1964
ANNUAL RUNOFF (CFSM)	2.04		3.08		2.06	
ANNUAL RUNOFF (INCHES)	27.68		41.77		27.95	
10 PERCENT EXCEEDS	404		542		390	
50 PERCENT EXCEEDS	141		185		128	
90 PERCENT EXCEEDS	24		105		32	

a From rating curve extended above 1,700 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmark.



01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1926 to 1982; April 2002 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Water years 1981 to current year.

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

REMARKS.--Water temperature records rated good. Interruptions in the record were due to malfunctions of the recording instrument. Other data for the Water-Quality Network can be found on pages 430-470.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 31.5°C, July 6, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 24.0°C, July 5, 6, 16, Aug. 2; minimum, 0.0°C, many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduct-ance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
NOV 2002													
05...	0830	1028	9813	114	30	13.2	6.3	64	2.9	17	4.94	5.2	1.03
JAN 2003													
07...	1100	1028	9813	283	30	13.2	6.3	58	.4	15	4.43	4.6	.92
MAR													
05...	0830	1028	9813	165	30	14.4	6.9	88	.4	19	5.75	5.7	1.14
MAY													
06...	1030	1028	9813	114	30	11.5	6.8	72	9.4	18	4.98	5.3	1.01
JUL													
22...	1050	1028	9813	225	30	9.4	6.3	66	19.4	19	5.33	5.5	1.18
SEP													
10...	1030	1028	9813	114	30	10.0	6.7	59	14.9	15	4.56	4.6	.95

Date	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2002													
05...	1.1	6	21	7.2	47	<2	<.020	.15	<.040	<.01	<.010	.39	1.6
JAN 2003													
07...	.9	5	.0	6.6	72	<2	<.020	.18	<.040	<.01	<.010	.28	1.2
MAR													
05...	1.1	6	.0	6.8	54	<2	<.020	.22	<.040	.01	<.010	.59	1.5
MAY													
06...	1.1	7	13	6.1	50	<2	<.020	.08	<.040	<.01	.012	.27	1.9
JUL													
22...	1.2	8	--	5.1	54	4	<.020	.15	<.040	.02	.026	.38	1.6
SEP													
10...	1.0	8	.0	5.0	58	4	<.020	.07	<.040	<.01	.013	.14	.9

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover-able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover-able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover-able, µg/L (01051)	Mangan-ese, water, fltrd, µg/L (01056)	Mangan-ese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2002													
05...	68	82	<4	<4	100	130	<1.0	<1.0	30	40	<4.0	<4.0	8.9
JAN 2003													
07...	87	100	<4	<4	90	130	<1.0	<1.0	60	70	<4.0	<4.0	10
MAR													
05...	80	70	<4	<4	--	--	<1.0	<1.0	70	70	<4.0	<4.0	10
MAY													
06...	48	61	<4	<4	90	120	<1.0	<1.0	30	40	<4.0	<4.0	7.5
JUL													
22...	64	200	<4	<4	190	420	<1.0	<1.0	20	100	<4.0	<4.0	6.3
SEP													
10...	60	67	<4	<4	180	240	<1.0	<1.0	20	30	<4.0	<4.0	5.0

Date	Zinc, water, unfltrd recover-able, µg/L (01092)
NOV 2002	
05...	9.1
JAN 2003	
07...	10
MAR	
05...	10
MAY	
06...	20
JUL	
22...	7.5
SEP	
10...	<5.0

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using rapid bioassessment protocols for benthic macroinvertebrates using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 (approximate) subsamples.

Date	8/8/02
Benthic Macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia sp	1
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium sp	9
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	4
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Ephemerellidae	
Dannella sp	2
Drunella sp	1
Serratella sp	1
Heptageniidae	
Epeorus sp	3
Stenonema sp	15
Isonychiidae	
Isonychia sp	13
Odonata	
Gomphidae (DRAGONFLIES)	4
Ophiogomphus sp	1
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria sp	4
Agnetina sp	1
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Nigronia sp	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche sp	7
Hydropsyche sp	12
Hydroptilidae	
Hydroptila sp	2
Philopotamidae	
Chimarra sp	6
Rhyacophilidae	
Rhyacophila sp	2

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	8/8/02
Benthic Macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus sp	2
Stenelmis sp	5
Psephenidae (WATER PENNIES)	
Psephenus sp	5
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	78
Total Organisms	180

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	18.0	12.5	15.0	5.5	4.0	5.0	2.5	0.5	1.5	3.5	2.0	3.0
2	20.0	14.5	17.0	4.5	3.5	4.0	1.0	0.0	0.5	2.0	1.5	2.0
3	18.5	15.5	17.0	5.0	3.5	4.0	1.0	0.0	0.0	1.5	0.5	1.0
4	17.5	16.0	16.5	5.0	3.0	4.0	0.0	0.0	0.0	1.5	0.5	1.0
5	19.5	16.5	17.5	5.0	3.0	4.0	0.5	0.0	0.0	1.5	1.0	1.5
6	17.5	13.0	15.5	6.0	4.5	5.0	0.5	0.0	0.5	2.0	1.0	1.5
7	17.0	13.5	15.5	5.5	3.5	4.5	0.5	0.0	0.0	1.0	0.0	0.5
8	15.0	11.0	13.0	5.5	2.5	4.0	1.0	0.0	0.5	2.0	0.0	1.0
9	13.5	9.5	11.5	7.0	4.0	5.5	0.0	0.0	0.0	2.5	2.0	2.0
10	13.5	12.5	13.0	9.5	6.5	8.0	0.5	0.0	0.0	2.5	1.0	2.0
11	13.0	12.5	12.5	12.0	9.5	11.0	0.5	0.0	0.0	1.0	0.0	0.0
12	14.0	13.0	13.5	10.0	8.5	9.0	1.0	0.0	0.5	0.5	0.0	0.0
13	14.0	13.5	13.5	8.5	7.0	8.0	2.0	1.0	1.5	0.5	0.0	0.0
14	13.5	10.5	12.0	7.5	5.5	6.5	2.5	2.0	2.5	0.0	0.0	0.0
15	10.5	8.5	9.5	8.0	6.0	7.0	2.5	2.0	2.0	0.0	0.0	0.0
16	10.0	10.0	10.0	7.0	5.5	6.5	2.5	1.0	2.0	0.0	0.0	0.0
17	10.5	9.5	10.0	5.5	5.0	5.5	1.0	0.0	0.5	0.5	0.0	0.0
18	10.0	9.0	9.5	5.0	4.0	4.5	0.5	0.0	0.0	0.0	0.0	0.0
19	9.5	8.5	9.0	4.0	3.5	3.5	2.0	0.0	1.0	0.5	0.0	0.0
20	10.0	7.5	8.5	5.5	4.0	4.5	4.0	2.0	3.0	0.5	0.0	0.0
21	9.5	7.5	8.5	5.0	3.5	4.0	2.5	2.0	2.0	0.0	0.0	0.0
22	9.0	6.0	7.5	5.5	5.0	5.5	3.0	1.5	2.0	0.5	0.0	0.0
23	9.0	7.0	8.0	5.5	3.5	4.0	2.5	2.0	2.0	0.0	0.0	0.0
24	7.5	5.5	6.5	4.5	3.0	3.5	2.5	1.5	2.0	0.0	0.0	0.0
25	7.0	6.5	6.5	5.0	3.0	4.0	2.0	0.0	0.5	0.0	0.0	0.0
26	8.5	6.5	7.5	4.5	3.5	4.0	1.0	0.0	0.5	0.5	0.0	0.0
27	9.0	7.5	8.5	3.5	2.0	3.0	0.5	0.5	0.5	0.0	0.0	0.0
28	8.5	7.0	8.0	2.0	0.5	1.0	1.0	0.0	0.5	0.0	0.0	0.0
29	7.0	5.5	6.0	1.5	0.5	1.0	2.0	1.0	1.5	0.5	0.0	0.0
30	5.5	5.0	5.0	3.0	1.5	2.5	2.0	0.5	1.5	0.5	0.0	0.0
31	6.5	4.0	5.0	---	---	---	4.0	2.0	3.0	0.5	0.0	0.0
MONTH	20.0	4.0	10.9	12.0	0.5	4.9	4.0	0.0	1.0	3.5	0.0	0.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	0.5	0.5	0.5	0.5	0.0	0.5	3.5	2.0	2.5	16.5	11.5	13.5
2	0.5	0.5	0.5	1.0	0.0	0.5	7.5	2.5	5.0	16.5	14.0	15.0
3	1.0	0.5	0.5	0.5	0.0	0.0	8.5	5.5	7.0	17.5	12.0	14.5
4	1.0	0.0	0.5	0.5	0.0	0.0	8.0	5.5	6.5	16.5	10.5	13.5
5	0.5	0.0	0.0	1.5	0.0	0.5	5.5	4.5	5.0	13.0	10.0	11.0
6	0.0	0.0	0.0	0.5	0.0	0.0	6.0	3.5	4.5	13.5	9.0	10.5
7	0.5	0.0	0.0	0.5	0.0	0.0	5.0	2.0	3.5	17.0	11.0	13.5
8	0.5	0.0	0.0	2.0	0.0	0.5	3.0	2.0	2.5	15.0	13.5	14.0
9	0.5	0.0	0.0	2.5	0.0	1.0	3.5	3.0	3.0	13.5	12.5	13.0
10	0.5	0.0	0.0	1.5	0.0	0.5	6.5	3.5	4.5	15.0	11.0	13.0
11	0.5	0.0	0.0	1.0	0.0	0.0	5.5	4.5	5.0	15.5	13.5	14.5
12	0.5	0.0	0.0	2.5	0.0	1.0	9.5	5.0	7.0	14.5	12.0	13.0
13	0.0	0.0	0.0	2.0	0.5	1.5	10.0	6.0	8.0	12.0	10.5	11.5
14	0.0	0.0	0.0	3.0	0.0	1.0	10.5	5.5	8.0	11.5	10.0	10.5
15	0.0	0.0	0.0	5.5	0.5	2.5	13.5	8.0	10.5	12.0	8.5	10.5
16	0.0	0.0	0.0	6.0	1.5	3.5	15.0	10.5	13.0	12.0	10.5	11.0
17	0.0	0.0	0.0	5.5	2.5	3.5	13.5	8.0	10.5	13.5	10.0	11.5
18	0.0	0.0	0.0	4.5	1.5	3.0	8.0	6.5	7.0	17.5	10.5	13.5
19	0.5	0.0	0.0	4.0	1.0	2.5	12.0	6.5	8.5	18.5	11.0	14.0
20	0.5	0.0	0.5	2.5	2.0	2.0	12.5	8.0	10.5	18.0	11.5	14.5
21	0.5	0.0	0.5	5.0	1.5	3.0	11.0	9.5	10.5	15.0	12.5	13.5
22	0.5	0.5	0.5	6.0	3.0	4.0	12.5	10.0	11.0	12.5	11.5	12.0
23	0.5	0.0	0.5	6.0	3.0	4.5	11.0	7.0	9.0	13.0	11.0	12.0
24	0.0	0.0	0.0	6.5	3.0	5.0	11.0	5.5	8.0	12.5	11.5	12.0
25	0.5	0.0	0.0	8.0	4.0	6.0	12.5	7.0	9.5	13.0	11.5	12.5
26	0.0	0.0	0.0	7.0	5.0	6.0	10.5	10.0	10.5	12.5	12.0	12.0
27	0.5	0.0	0.0	8.0	4.0	6.0	14.5	9.5	11.5	13.5	11.5	12.5
28	0.5	0.0	0.5	8.0	5.0	6.5	15.5	9.5	12.5	14.5	12.0	13.0
29	---	---	---	9.0	7.5	8.0	14.5	11.5	12.5	17.0	12.5	14.5
30	---	---	---	8.5	4.0	6.0	14.0	10.0	12.0	18.0	13.0	15.0
31	---	---	---	5.0	2.5	3.5	---	---	---	15.5	13.5	14.0
MONTH	1.0	0.0	0.2	9.0	0.0	2.7	15.5	2.0	8.0	18.5	8.5	12.9

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	13.5	11.5	12.5	21.0	16.5	18.5	19.5	18.5	19.0	17.5	16.5	17.0
2	14.0	10.5	12.0	20.5	17.5	19.0	24.0	18.5	21.0	16.5	16.0	16.5
3	13.0	11.5	12.0	22.0	17.5	19.5	23.5	21.0	22.0	16.5	16.0	16.0
4	12.0	11.5	12.0	23.5	18.0	20.5	21.5	20.0	20.5	18.0	16.5	17.0
5	13.5	11.5	12.5	24.0	19.0	21.0	21.5	20.0	20.5	18.0	16.5	17.0
6	15.5	12.0	13.5	24.0	19.5	21.5	21.0	19.5	20.0	18.5	14.5	16.5
7	14.5	12.5	13.0	23.0	19.5	21.0	21.0	19.0	20.0	18.5	14.5	16.5
8	14.0	12.5	13.5	23.0	19.5	21.0	23.0	19.5	21.0	17.5	15.0	16.5
9	16.0	13.5	14.5	21.5	18.5	20.0	21.5	20.0	21.0	19.0	15.5	17.0
10	17.5	13.0	15.5	18.5	17.0	17.5	22.5	20.0	21.0	18.5	14.5	16.0
11	17.0	15.0	16.0	19.5	16.5	18.0	21.0	19.5	20.0	19.5	14.0	16.5
12	17.0	15.5	16.5	20.0	16.5	18.0	21.5	19.0	20.0	18.0	15.0	16.5
13	17.5	16.0	17.0	21.0	16.0	18.0	22.0	19.5	21.0	17.0	16.0	16.5
14	20.0	16.5	18.0	21.5	16.0	18.5	22.5	19.0	21.0	20.0	16.5	18.0
15	19.0	16.0	17.5	23.5	17.0	20.0	23.0	19.0	21.0	18.5	18.0	18.5
16	19.0	15.0	17.0	24.0	19.0	21.0	21.0	19.5	20.5	18.5	17.5	18.0
17	18.0	15.0	16.5	23.5	17.5	20.0	21.5	18.5	20.0	18.0	15.5	17.0
18	16.5	15.5	15.5	20.0	18.0	18.5	20.0	17.5	18.5	17.0	15.5	16.5
19	18.5	15.0	16.5	23.0	16.0	19.0	21.5	17.5	19.0	---	---	---
20	17.5	14.5	16.0	23.5	16.5	19.5	23.0	18.5	20.5	---	---	---
21	14.5	14.0	14.5	23.5	18.0	20.5	23.5	19.0	21.0	---	---	---
22	14.0	13.5	14.0	20.0	18.5	19.5	23.5	20.0	21.5	---	---	---
23	17.5	13.5	15.5	21.0	19.0	20.0	23.0	19.0	21.0	17.0	16.0	16.5
24	19.5	15.5	17.5	22.5	19.0	20.5	21.5	16.5	19.0	16.0	14.5	15.5
25	20.5	16.5	18.5	23.5	17.5	20.5	22.0	17.5	19.5	16.0	14.5	15.5
26	22.0	18.0	20.0	23.0	18.0	20.5	21.0	18.5	19.5	16.5	15.0	15.5
27	21.5	18.5	20.0	23.5	19.5	21.0	22.0	18.5	20.0	17.5	15.5	16.5
28	21.0	17.0	19.0	23.5	19.5	21.0	22.0	17.0	19.5	17.0	14.5	16.0
29	20.5	17.5	19.0	23.0	18.0	20.0	20.0	16.5	18.5	14.5	13.5	14.0
30	20.0	17.5	19.0	23.0	17.5	20.0	19.0	17.0	18.5	13.5	11.5	12.5
31	---	---	---	22.0	17.0	19.5	19.5	14.5	17.0	---	---	---
MONTH	22.0	10.5	15.8	24.0	16.0	19.8	24.0	14.5	20.1	20.0	11.5	16.4
YEAR	24.0	0.0	9.4									