



2004 Water Year LEHIGH RIVER BASIN

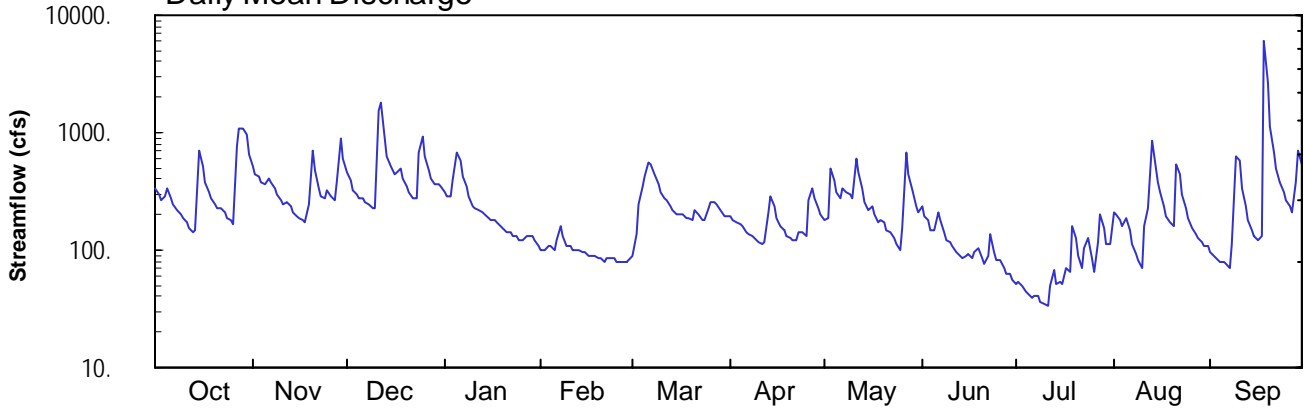
01447500 Lehigh River at Stoddartsville, PA

Latitude: 41°07'49"
Monroe County

Longitude: 075°37'33"
Datum: 1463.81 feet

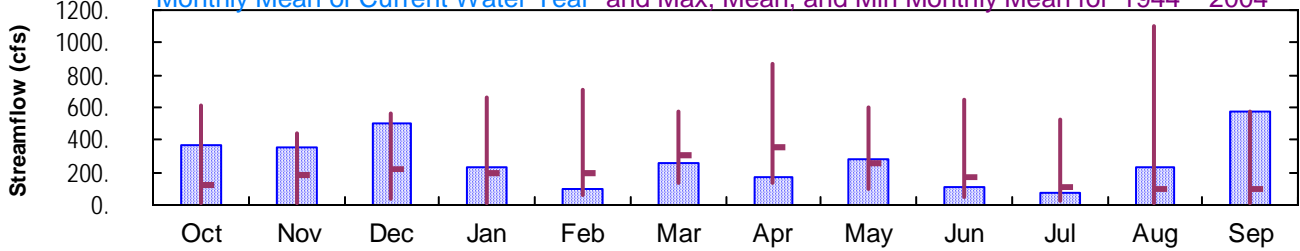
Hydrologic Unit Code: 02040106
Drainage Area: 91.7 mi²

Daily Mean Discharge

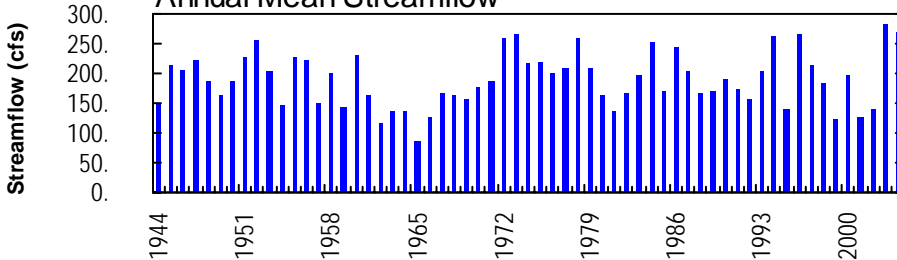


Monthly Statistics

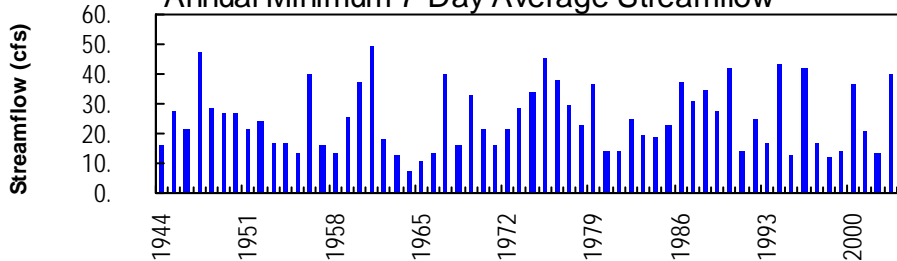
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1944 – 2004



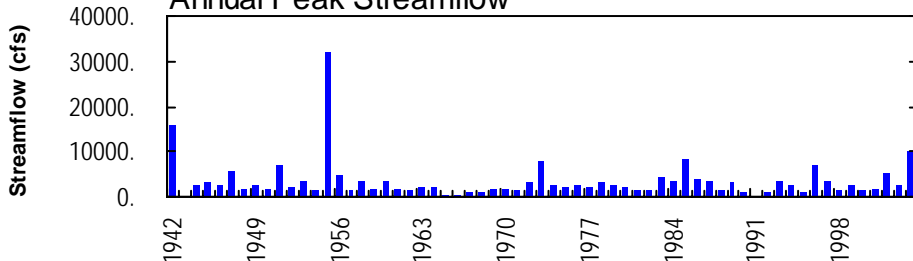
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



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 mi².

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 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Oct. 27	2300	1,470	3.78	Dec. 11	2045	2,700	5.33
Oct. 29	1730	1,360	3.63	Sept. 18	1215	*10,200	*11.59

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	516	460	309	e100	89	191	181	231	51	209	97
2	296	448	388	283	e100	138	182	188	197	54	203	88
3	263	422	326	290	e110	248	173	499	180	49	176	82
4	292	379	293	389	e110	343	168	388	145	44	161	79
5	330	369	272	673	e100	417	157	307	146	42	184	78
6	278	403	279	585	e120	560	141	273	208	40	150	76
7	244	372	260	431	e160	539	134	334	181	40	111	71
8	219	330	242	e350	e130	438	131	305	145	40	93	113
9	199	297	227	e290	e110	358	124	303	122	37	81	625
10	184	264	226	e240	e110	315	117	279	115	35	70	571
11	171	247	1550	e230	e100	281	112	e600	109	34	158	334
12	154	251	1770	e220	e100	266	117	e450	97	50	227	232
13	145	239	875	e210	e100	237	207	e340	88	69	863	179
14	145	209	615	e200	e95	214	283	257	85	51	642	146
15	694	195	524	e190	e95	204	234	218	91	53	383	130
16	524	186	440	e180	e90	203	188	234	93	51	305	122
17	375	181	458	e180	e90	200	159	200	87	70	238	134
18	310	175	486	e170	e90	190	145	175	95	65	196	6050
19	272	242	404	e160	e85	185	133	181	104	163	171	2700
20	248	694	348	e150	e85	178	124	169	86	126	162	1120
21	229	475	307	e140	e80	222	123	147	75	91	531	687
22	224	339	279	e140	e85	205	121	141	90	69	445	489
23	208	290	275	e130	e85	179	143	126	137	106	299	382
24	190	279	686	e130	e85	179	141	113	96	128	228	315
25	176	320	919	e120	e80	227	130	101	82	85	185	269
26	169	286	625	e120	e80	251	266	154	82	66	157	238
27	750	261	481	e130	e80	260	339	673	70	117	139	212
28	1100	370	408	e130	e80	248	276	444	62	199	128	371
29	1090	875	361	e130	83	217	230	321	61	156	117	694
30	964	594	369	e120	---	195	199	238	56	111	106	536
31	657	---	352	e110	---	194	---	206	---	111	107	---
TOTAL	11433	10508	15505	7130	2818	7980	5188	8545	3416	2403	7225	17220
MEAN	369	350	500	230	97.2	257	173	276	114	77.5	233	574
MAX	1100	875	1770	673	160	560	339	673	231	199	863	6050
MIN	145	175	226	110	80	89	112	101	56	34	70	71
CFSM	4.02	3.82	5.45	2.51	1.06	2.81	1.89	3.01	1.24	0.85	2.54	6.26
IN.	4.64	4.26	6.29	2.89	1.14	3.24	2.10	3.47	1.39	0.97	2.93	6.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2004, BY WATER YEAR (WY)

MEAN	122	181	217	195	195	305	350	253	166	106	92.5	98.0
MAX	613	439	561	665	709	577	867	604	655	528	1101	574
(WY)	1956	1973	1974	1996	1981	1977	1993	1989	1972	1947	1955	2004
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 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1944 - 2004	
ANNUAL TOTAL	118575		99371			
ANNUAL MEAN	325		272		190	
HIGHEST ANNUAL MEAN					282	
LOWEST ANNUAL MEAN					86.2	
HIGHEST DAILY MEAN	2640	Jun 22	6050	Sep 18	18900	Aug 19 1955
LOWEST DAILY MEAN	72	Jul 21	34	Jul 11	7.0	Sep 26 1964
ANNUAL SEVEN-DAY MINIMUM	79	Jul 15	38	Jul 5	7.4	Sep 21 1964
MAXIMUM PEAK FLOW			a10200	Sep 18	a31900	Aug 19 1955
MAXIMUM PEAK STAGE			11.59	Sep 18	b16.37	Aug 19 1955
INSTANTANEOUS LOW FLOW					7.0	
ANNUAL RUNOFF (CFSM)	3.54		2.96		2.07	
ANNUAL RUNOFF (INCHES)	48.10		40.31		28.16	
10 PERCENT EXCEEDS	634		504		392	
50 PERCENT EXCEEDS	226		190		129	
90 PERCENT EXCEEDS	110		82		33	

a From rating curve extended above 1,700 ft³/s on basis of slope-area measurement of peak flow.

b From floodmark.

LEHIGH RIVER BASIN

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 year 1981 to September 30, 2004. (discontinued)

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. Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

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, 26.5°C, July 5; minimum, 0.0°C, many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd, std units (00400)	pH, water, unfltrd, lab, std units (00403)	Specific conductance, wat unfltrd, µS/cm 25 degC (90095)	Specific conductance, wat unfltrd, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	
Date		Magnesium, water, unfltrd, recoverable, mg/L (00925)	Magnesium, water, unfltrd, recoverable, mg/L (00927)	ANC, 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 fltrd, 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)
OCT 2003														
08...	1210	1028	9813	219	11.2	6.4	6.5	54	52	9.8	13	3.9	3.9	
DEC														
16...	0820	1028	9813	447	14.6	6.2	6.4	48	44	.5	12	3.2	3.5	
FEB 2004														
23...	1830	1028	9813	E85	15.3	6.3	7.0	77	76	1.2	17	5.1	5.3	
APR														
20...	1100	1028	9813	123	12.4	7.2	6.8	69	58	13.2	15	4.7	4.5	
JUN														
22...	1030	1028	9813	71	8.9	6.8	6.4	73	69	17.2	17	5.2	5.0	
AUG														
18...	1130	1028	9813	204	10.1	5.7	6.5	54	54	16.9	13	3.7	4.0	

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	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)
OCT 2003 08...	.7	70	90	<4	<4	170	200	<1.0	<1.0	40	40	--	--
DEC 16...	1.6	80	110	<4	<4	110	170	<1.0	<1.0	50	60	<4.0	<4.0
FEB 2004 23...	1.8	40	60	<4	<4	70	130	<1.0	<1.0	40	40	<4.0	<4.0
APR 20...	1.0	70	70	<4	<4	50	80	<1.0	<1.0	20	30	<4.0	<4.0
JUN 22...	1.7	30	70	<4	<4	100	210	<1.0	<1.0	20	30	<4.0	<4.0
AUG 18...	1.1	100	120	<4	<4	180	310	<1.0	<1.0	40	60	<4.0	<4.0

Date	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)
OCT 2003 08...	8	8
DEC 16...	10	10
FEB 2004 23...	7	8
APR 20...	5	10
JUN 22...	<5	<5
AUG 18...	8	10

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/21/03
Benthic macroinvertebrate	Count
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<i>Sphaerium</i>	22
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	5
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	4
<i>Baetis</i>	1
Caenidae	
<i>Caenis</i>	1
Ephemerellidae	
<i>Attenella</i>	4
Heptageniidae	
<i>Stenonema</i>	13
Isonychiidae	
<i>Isonychia</i>	3
Leptophlebiidae	
<i>Paraleptophlebia</i>	4
Tricorythidae	
<i>Tricorythodes</i>	1
Plecoptera (STONEFLIES)	
Perlidae	
<i>Acroneuria</i>	2
Trichoptera (CADDISFLIES)	
Apataniidae	
<i>Apatania</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	11
<i>Hydropsyche</i>	6
Lepidostomatidae	
<i>Lepidostoma</i>	2
Philopotamidae	
<i>Chimarra</i>	3
Rhyacophilidae	
<i>Rhyacophila</i>	1

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	08/21/03
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	2
<i>Oulimnius</i>	3
<i>Stenelmis</i>	12
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	3
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	39
Total Organisms	144
Total Taxa	23

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.0	11.0	11.5	11.0	8.5	10.0	4.5	3.0	4.0	2.5	1.5	2.0
2	11.0	9.5	10.0	11.5	10.5	11.0	3.0	0.5	2.0	3.5	2.5	3.0
3	10.5	8.0	9.0	12.5	10.5	11.5	1.0	0.0	0.5	5.5	3.5	4.5
4	9.5	9.0	9.0	12.5	10.5	12.0	1.0	0.0	0.5	5.5	4.0	5.0
5	10.0	8.0	9.0	12.0	11.5	12.0	1.5	0.5	1.0	4.0	3.0	3.5
6	10.0	7.5	8.5	12.0	11.0	11.5	0.5	0.0	0.0	3.0	1.0	2.0
7	10.0	7.0	8.5	11.0	9.5	10.0	0.5	0.0	0.0	1.0	0.0	0.0
8	12.0	8.5	10.0	9.5	5.5	7.5	1.0	0.0	0.5	1.0	0.0	0.5
9	12.5	9.5	11.0	5.5	4.0	4.5	1.5	0.5	1.0	0.5	0.0	0.0
10	14.0	11.0	12.5	4.5	2.5	3.5	3.5	1.5	2.5	0.0	0.0	0.0
11	14.0	11.0	12.5	5.0	3.5	4.0	4.0	3.0	4.0	0.0	0.0	0.0
12	13.5	10.5	12.0	7.5	5.0	6.5	3.0	1.5	2.0	0.5	0.0	0.0
13	14.0	11.0	12.5	8.0	4.5	6.5	1.5	1.0	1.5	1.0	0.0	0.5
14	12.5	10.0	11.5	4.5	2.5	3.0	1.0	0.0	0.5	0.0	0.0	0.0
15	12.0	10.5	11.5	4.5	3.0	3.5	1.0	0.0	0.5	0.0	0.0	0.0
16	10.5	9.5	10.0	4.5	3.0	4.0	2.0	0.5	1.0	0.5	0.0	0.0
17	10.0	8.5	9.0	6.0	4.5	5.5	2.5	1.5	2.0	0.5	0.0	0.0
18	9.5	8.0	9.0	6.5	5.5	5.5	1.5	1.0	1.0	0.5	0.0	0.0
19	9.0	8.0	8.5	10.0	6.5	8.5	2.0	1.0	1.5	0.5	0.0	0.0
20	9.0	6.5	8.0	9.5	6.5	8.0	2.0	1.0	1.0	0.5	0.0	0.0
21	11.0	8.5	9.5	7.0	5.0	6.0	1.0	0.0	0.5	0.0	0.0	0.0
22	10.5	8.0	9.5	6.5	5.0	6.0	2.0	0.0	1.0	0.0	0.0	0.0
23	8.0	5.5	6.5	7.0	5.0	6.0	3.5	2.0	3.0	0.0	0.0	0.0
24	6.5	4.5	5.5	7.5	5.5	6.5	3.5	3.0	3.5	0.0	0.0	0.0
25	7.0	4.5	5.5	6.5	4.5	5.5	3.0	2.0	2.5	0.0	0.0	0.0
26	10.0	7.0	8.5	4.5	4.0	4.5	2.0	1.5	1.5	0.0	0.0	0.0
27	11.0	9.5	10.5	5.5	3.5	4.5	2.5	1.5	2.0	0.5	0.0	0.0
28	9.5	8.5	9.0	7.5	5.5	6.5	2.0	1.0	1.5	0.5	0.0	0.0
29	9.0	8.5	9.0	7.0	4.0	5.5	2.5	1.0	2.0	0.0	0.0	0.0
30	9.0	7.5	8.5	4.5	3.5	4.0	3.5	2.5	3.0	0.0	0.0	0.0
31	9.5	7.5	8.5	---	---	---	3.0	2.0	2.5	0.0	0.0	0.0
MONTH	14.0	4.5	9.5	12.5	2.5	6.8	4.5	0.0	1.6	5.5	0.0	0.7
	FEBRUARY			MARCH			APRIL			MAY		
1	0.5	0.0	0.0	4.0	0.0	2.0	7.0	6.5	7.0	17.5	13.5	15.5
2	0.5	0.0	0.0	5.0	2.0	3.0	7.0	6.0	6.5	16.5	15.5	16.0
3	0.5	0.0	0.0	4.0	1.5	3.0	6.5	6.0	6.0	15.5	11.5	13.0
4	0.5	0.0	0.5	3.0	2.0	2.5	6.0	4.0	5.5	13.5	9.5	11.5
5	0.5	0.0	0.5	3.5	2.5	3.0	6.5	2.0	4.0	11.5	9.5	10.5
6	0.5	0.0	0.0	4.0	3.0	3.5	7.0	1.0	4.0	15.0	9.5	12.0
7	0.5	0.0	0.5	4.5	2.0	3.0	10.0	4.5	6.5	15.5	12.5	14.0
8	0.5	0.0	0.0	3.5	2.5	3.0	7.5	5.5	6.5	14.5	12.0	13.5
9	0.5	0.0	0.0	2.5	2.0	2.5	9.5	5.0	7.0	15.0	11.5	13.5
10	1.0	0.5	0.5	4.0	2.0	2.5	9.0	5.0	7.0	18.0	13.0	15.5
11	0.5	0.0	0.5	4.5	1.0	3.0	7.5	5.5	6.5	---	---	---
12	0.5	0.0	0.5	4.0	2.0	3.0	8.5	5.5	7.0	---	---	---
13	1.0	0.5	0.5	4.0	1.0	2.0	7.0	6.0	6.5	---	---	---
14	0.5	0.0	0.5	2.5	0.5	1.5	7.5	6.5	7.0	21.5	18.0	20.0
15	0.5	0.0	0.0	6.0	2.0	3.5	10.0	5.0	7.5	22.0	18.0	19.5
16	0.5	0.0	0.0	4.0	0.5	2.0	11.0	5.5	8.0	19.5	17.0	18.5
17	0.5	0.0	0.0	2.5	0.5	1.5	13.0	7.5	10.5	19.0	15.5	17.0
18	0.5	0.0	0.0	4.5	1.0	2.5	15.0	10.0	12.5	20.0	17.0	18.0
19	0.5	0.0	0.5	3.5	1.5	2.5	16.5	11.0	13.5	18.5	16.5	17.5
20	1.0	0.0	0.5	4.5	0.0	2.5	16.5	12.5	14.0	18.0	15.0	16.5
21	1.0	0.5	0.5	3.5	2.0	3.0	15.5	11.5	13.0	19.5	16.5	17.5
22	1.0	0.0	0.5	4.0	0.5	2.0	16.5	12.5	14.0	21.0	17.0	19.0
23	1.5	0.0	0.5	4.0	0.0	1.5	14.0	11.5	13.0	22.5	18.0	20.0
24	0.5	0.0	0.5	6.5	1.0	3.5	16.0	10.5	12.5	22.5	18.5	20.5
25	1.0	0.0	0.0	6.0	4.0	5.0	12.5	9.0	10.5	22.5	17.5	20.0
26	1.0	0.0	0.0	7.5	4.5	6.0	9.5	8.5	9.0	19.0	16.5	17.5
27	2.0	0.0	0.5	7.5	6.5	7.0	12.5	9.0	10.5	19.0	15.5	17.0
28	2.5	0.0	1.0	10.0	5.5	7.5	12.0	8.0	10.0	19.5	17.5	18.5
29	3.0	0.0	1.0	9.5	5.5	7.5	15.0	8.5	11.5	18.0	15.0	16.5
30	---	---	---	7.5	5.0	6.5	16.5	11.5	14.0	18.0	12.5	15.0
31	---	---	---	8.0	6.0	7.0	---	---	---	15.5	13.5	14.0
MONTH	3.0	0.0	0.3	10.0	0.0	3.5	16.5	1.0	9.0	22.5	9.5	16.3

LEHIGH RIVER BASIN

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

CROSS-SECTION ANALYSES, OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Sample location, cross section ft from rt bank (72103)	Sampling depth, feet (00003)	Temperature, water, deg C (00010)
JUL 2004					
01...	1641	51	22	--	--
01...	1647	--	39	1.40	22.8
01...	1655	--	59	1.27	22.7
01...	1703	--	76	0.93	22.7
01...	1710	--	99	--	--