

Water-Data Report 2009

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA

Monongahela Basin
Youghiogheny Subbasin

LOCATION.--Lat 40°14'24", long 79°48'24" referenced to North American Datum of 1927, Allegheny County, PA, Hydrologic Unit 05020006, on left bank 500 ft upstream from highway bridge at Sutersville, 2.1 mi downstream from Sewickley Creek, at river mile 15.2.

DRAINAGE AREA.--1,715 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge for 1926, 1930, part of 1931, 1937, 1938, and part of 1939, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1924, 1926 (M), 1931 (M). WSP 1435: 1935-36.

GAGE.--Water-stage recorder. Datum of gage is 733.36 ft above National Geodetic Vertical Datum of 1929 (from benchmark). Prior to June 1, 1939, nonrecording gage at site 500 ft downstream at same datum. Satellite telemetry at station.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the Pennsylvania Department of Environmental Protection. Funding also provided by the USGS National Streamflow Information Program.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since January 1925 by Deep Creek Reservoir, 84 mi upstream, since December 1942 by Youghiogheny River Lake (station 03077000) 58 mi upstream, and by several smaller reservoirs.

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,130	1,130	1,500	4,600	3,410	2,550	2,420	2,920	2,320	1,880	1,670	866
2	1,090	1,130	2,100	4,030	3,330	2,160	2,330	7,600	2,150	2,130	1,440	819
3	1,050	1,100	1,670	3,400	3,100	1,840	2,840	6,990	2,260	2,040	1,300	839
4	1,050	1,090	1,380	2,730	2,780	1,570	5,300	10,200	2,050	1,680	1,120	827
5	1,060	1,070	1,490	2,710	2,420	1,650	4,980	24,200	2,070	1,490	1,030	882
6	1,030	1,060	e1,500	3,450	1,910	1,680	3,840	14,000	3,430	1,220	1,020	953
7	1,030	1,080	e1,400	7,190	1,920	1,670	3,390	14,700	2,790	956	997	990
8	1,050	1,070	e1,200	11,700	5,830	1,600	3,020	12,600	2,630	907	971	967
9	1,090	994	e1,100	7,380	13,900	1,590	2,730	10,600	2,780	898	938	830
10	1,050	880	1,510	6,230	8,610	1,510	2,500	9,240	2,780	870	917	818
11	1,020	740	5,890	6,840	16,400	1,400	2,300	7,270	2,720	904	1,010	807
12	1,000	661	15,900	6,510	13,000	1,320	2,830	7,180	3,320	995	1,340	809
13	1,040	671	12,600	6,300	9,220	1,240	2,710	6,610	2,430	977	1,190	853
14	1,080	722	8,610	6,330	7,690	1,170	2,400	4,370	1,800	940	1,080	817
15	1,070	890	7,380	5,300	7,910	1,140	2,470	2,950	1,560	939	988	623
16	1,080	1,030	8,530	4,760	7,060	1,130	2,920	2,360	1,280	967	927	607
17	1,090	1,020	9,310	4,310	6,420	1,130	2,860	2,630	1,150	1,020	892	596
18	1,090	975	11,300	e3,820	6,100	1,160	2,450	2,450	12,500	1,300	889	591
19	1,080	896	12,200	e3,290	6,610	1,150	2,230	1,940	9,040	1,090	926	594
20	1,070	846	27,000	e2,740	6,750	1,100	2,160	1,700	4,690	1,030	1,020	783
21	1,070	809	12,300	e2,030	5,180	1,030	3,220	1,510	6,250	1,150	1,050	804
22	1,070	809	7,060	e1,730	e4,530	991	3,950	1,340	6,680	1,300	1,040	600
23	1,080	740	4,580	e1,640	e4,150	959	4,140	1,270	4,870	1,170	961	597
24	1,030	691	6,040	e1,560	3,660	937	4,150	1,250	3,990	1,030	947	603
25	1,120	1,180	19,400	e1,560	3,060	922	3,990	1,290	3,320	972	900	614
26	1,260	2,470	11,600	e1,580	2,540	1,060	3,930	1,520	2,900	959	874	677
27	1,180	1,860	14,400	e1,800	2,290	2,220	3,590	2,730	1,910	1,040	843	1,060
28	1,140	1,420	11,000	e2,000	2,420	2,640	2,960	1,900	1,470	1,040	841	e1,260
29	1,140	1,240	8,000	e3,650	---	2,610	2,480	2,970	1,620	1,130	962	e927
30	1,130	1,140	6,730	e3,000	---	3,180	2,280	3,810	1,830	1,540	1,310	858
31	1,140	---	5,790	3,550	---	2,740	---	2,820	---	1,840	1,070	---
Total	33,610	31,414	240,470	127,720	162,200	49,049	93,370	174,920	100,590	37,404	32,463	23,871
Mean	1,084	1,047	7,757	4,120	5,793	1,582	3,112	5,643	3,353	1,207	1,047	796
Max	1,260	2,470	27,000	11,700	16,400	3,180	5,300	24,200	12,500	2,130	1,670	1,260
Min	1,000	661	1,100	1,560	1,910	922	2,160	1,250	1,150	870	841	591

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,513	2,177	3,650	4,076	4,552	5,893	4,901	3,730	2,328	1,563	1,464	1,408
Max	7,006	6,895	9,373	9,817	9,630	13,720	10,230	8,012	7,318	4,853	5,707	6,382
(WY)	(1955)	(2004)	(1973)	(2005)	(1939)	(1936)	(1940)	(1996)	(1941)	(1985)	(1956)	(1971)
Min	107	209	412	611	716	1,539	1,637	1,012	585	614	309	185
(WY)	(1924)	(1923)	(1999)	(1925)	(1934)	(1990)	(1921)	(1982)	(1925)	(1942)	(1922)	(1922)

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1921 - 2009	
Annual total	1,424,122		1,107,081			
Annual mean	3,891		3,033		3,101	
Highest annual mean					4,604	2004
Lowest annual mean					1,496	1925
Highest daily mean	27,000	Dec 20	27,000	Dec 20	79,000	Mar 18, 1936
Lowest daily mean	661	Nov 12	591	Sep 18	^a 57	Sep 30, 1922
Annual seven-day minimum	794	Nov 9	652	Sep 17	^b 64	Sep 24, 1922
Maximum peak flow			32,300	Dec 20	^c 108,000	Oct 16, 1954
Maximum peak stage			16.72	Dec 20	^d 32.50	Oct 16, 1954
Instantaneous low flow			575	Sep 19	^e 57	Sep 29, 1922 ^f
10 percent exceeds	9,560		7,180		6,880	
50 percent exceeds	2,370		1,570		1,950	
90 percent exceeds	1,040		878		715	

^a Prior to regulation; since regulation, 117 ft³/s, Oct 18, 1939.

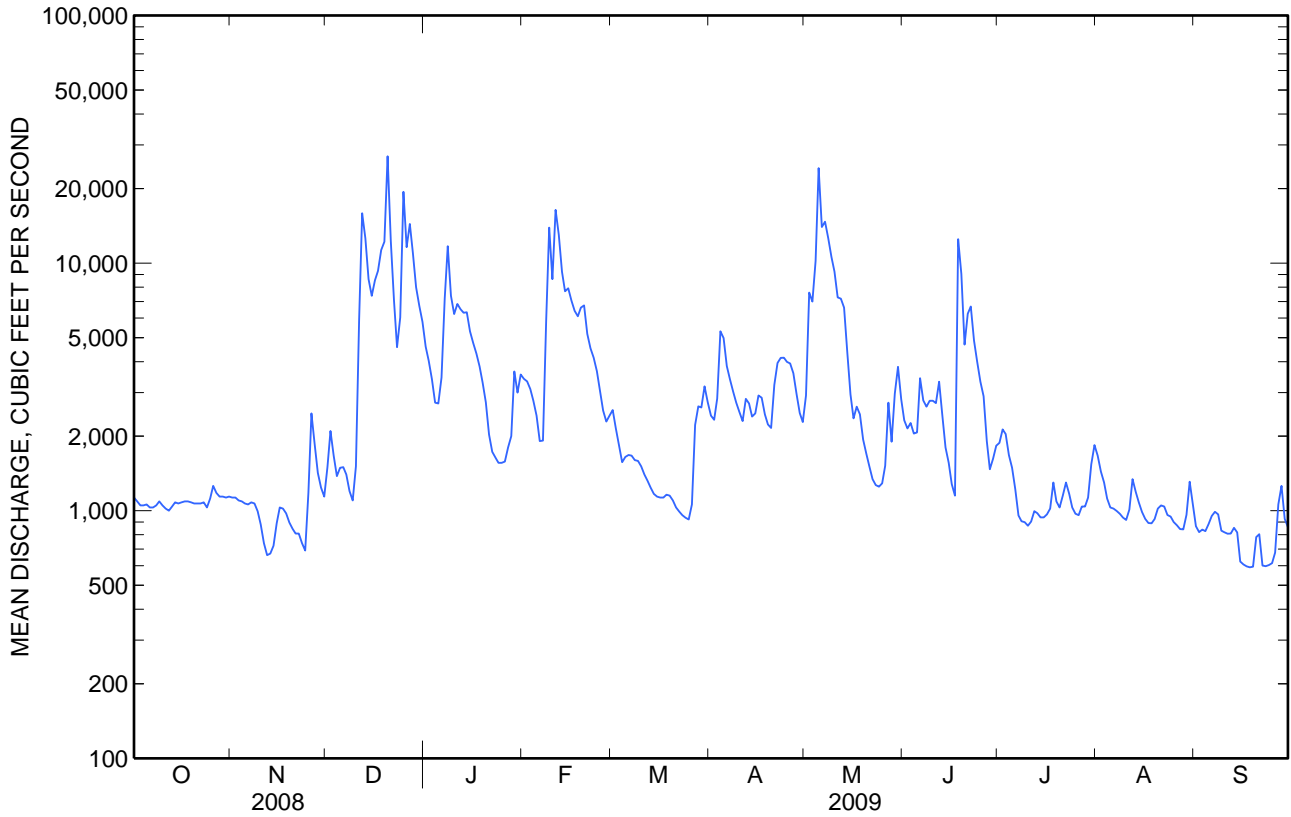
^b Prior to regulation; since regulation, 157 ft³/s, Oct 13, 1939.

^c From rating curve extended above 100,000 ft³/s.

^d From floodmark.

^e Minimum observed; minimum since regulation, 72 ft³/s, Oct 5, 1932.

^f Also Sep 30, 1922.



03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 2005 to current year.

pH: June 2005 to current year.

WATER TEMPERATURE: June 2005 to current year.

DISSOLVED OXYGEN: June 2005 to current year.

INSTRUMENTATION.--Continuous water-quality monitor interfaced with a data collection platform with 60-minute recording interval.

REMARKS.--Specific conductance record rated good except for periods May 1-13, which are fair, and May 14 to June 2, which are poor. pH record rated good except for periods July 28, 29, which are fair, and May 1 to July 9, which are poor. Water temperature record rated good. Dissolved oxygen record rated good, except for periods May 1-12, 20-28, and June 3, which are poor. Data collection discontinued during winter months. Other interruptions in the record were due to excessive fouling and malfunctions in the equipment. Analyses for pH, water temperature, specific conductance, and dissolved oxygen were performed on site. All other sample analyses were performed at the Pennsylvania Department of Environmental Protection laboratory in Harrisburg, Pa.

COOPERATION.--Water-quality 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. Continuous record water-quality data supported by the U.S. Army Corps of Engineers, Pittsburgh District.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 3

[Remark codes: <, less than; M, presence verified but not quantified.]

Date	Time	Instan- taneous dis- charge, ft ³ /s (00061)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unf lab, μS/cm @ 25 degC (90095)	Specif- ic conduc- tance, wat unf lab, μS/cm @ 25 degC (00095)	Temper- ature, deg C (00010)	Dis- solved solids dried @ 105degC wat flt mg/L (00515)	Hard- ness, water, mg/L as CaCO3 (00900)	Sus- pended solids, water, unfltrd mg/L (00530)	Calcium water unfltrd recover -able, mg/L (00916)	Magnes- ium, water, unfltrd recover -able, mg/L (00927)
Nov													
18...	1145	982	13.3	7.4	7.7	325	286	5.8	206	100	<5	29.0	7.8
Dec													
04...	1215	1,370	15.5	7.3	7.5	311	318	3.4	174	73	<5	20.8	5.2
Jan													
07...	1230	6,850	13.2	7.4	7.6	356	359	3.7	218	95	74	26.8	6.8
Feb													
25...	1200	3,020	14.3	7.7	7.4	241	223	.7	156	61	8	16.0	5.0
Mar													
31...	1315	2,720	12.0	7.6	7.8	317	239	7.7	204	90	<5	24.7	6.9
Apr													
13...	1400	2,630	11.6	7.4	7.5	287	241	8.9	180	81	8	21.8	6.4
May													
19...	1200	1,890	10.2	7.7	7.5	279	243	15.9	182	95	<5	25.8	7.4
Jun													
08...	1200	2,710	9.4	7.1	7.6	253	208	20.1	170	77	18	21.2	5.8
Jul													
09...	1345	899	9.1	8.1	7.6	306	309	23.2	196	95	10	25.8	7.5
Aug													
05...	1200	1,020	8.2	7.9	7.8	358	360	23.1	230	110	<5	31.6	8.5
Sep													
03...	1200	846	9.0	7.8	7.7	348	278	19.9	214	100	6	27.8	7.9

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 3

[Remark codes: <, less than; M, presence verified but not quantified.]

Date	Potas- sium, water, unfltrd recover- able, mg/L (00937)	Sodium, water, unfltrd recover- able, mg/L (00929)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, unfltrd mg/L as P (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, unfltrd recover- able, µg/L (01105)
Nov 18...	2.0	22.1	--	26.6	<.2	74.0	.040	.46	<.040	<.01	.015	.64	<200
Dec 04...	1.9	30.7	30	40.0	<.2	50.2	.060	.86	<.040	.01	.021	1.1	<200
Jan 07...	2.1	31.8	39	49.9	<.2	50.6	.080	1.04	<.040	.03	.164	1.6	1,600
Feb 25...	1.2	18.9	24	27.8	<.2	42.6	.050	.73	<.040	.01	.015	.90	<200
Mar 31...	1.6	27.5	34	41.3	<.2	52.7	.030	.63	<.040	.01	.022	.82	<200
Apr 13...	1.3	20.0	30	31.0	<.2	56.8	<.020	.65	<.040	.01	.021	1.4	<200
May 19...	1.5	17.7	35	21.2	<.2	64.7	.020	.54	<.040	.01	.015	.70	<200
Jun 08...	1.6	15.3	31	18.7	<.2	54.8	<.020	.83	<.040	.02	.027	1.0	300
Jul 09...	1.5	17.6	37	19.5	<.2	74.0	.050	.41	<.040	.01	.018	.63	<200
Aug 05...	1.9	24.2	48	27.0	<.2	80.8	.050	.54	<.040	.01	.017	.78	<200
Sep 03...	1.9	29.3	44	26.1	<.2	77.0	.030	.70	<.040	<.01	.015	.94	<200

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 3 of 3

[Remark codes: <, less than; M, presence verified but not quantified.]

Date	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)	Cyanide amen- able to chlor- ination wat unf mg/L (00722)	Organic carbon, water, fltrd, mg/L (00681)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
Nov 18...	<4	360	<1.0	60	<50	<10	<3.00	1.9	<5
Dec 04...	<4	320	<1.0	50	<50	<10	<3.00	1.9	<5
Jan 07...	M	4,850	M	280	<50	30	<3.00	2.2	<5
Feb 25...	<4	320	<1.0	100	<50	<10	<3.00	2.2	<5
Mar 31...	<4	490	<1.0	90	<50	<10	--	1.9	<5
Apr 13...	<4	290	<1.0	70	<50	10	<3.00	1.5	<5
May 19...	<4	300	<1.0	50	<50	<10	<3.00	1.5	<5
Jun 08...	<4	920	<1.0	110	<50	10	<3.00	2.2	<5
Jul 09...	<4	110	<1.0	20	<50	<10	<3.00	2.7	<5
Aug 05...	<4	260	<1.0	60	<50	<10	<3.00	2.3	<5
Sep 03...	<4	190	<1.0	40	<50	<10	<3.00	2.4	<5

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	268	226	241
2	---	---	---	---	---	---	---	---	---	260	183	216
3	---	---	---	---	---	---	---	---	---	196	181	190
4	---	---	---	---	---	---	---	---	---	196	143	184
5	---	---	---	---	---	---	---	---	---	143	125	131
6	---	---	---	---	---	---	---	---	---	156	136	143
7	---	---	---	---	---	---	---	---	---	154	144	148
8	---	---	---	---	---	---	---	---	---	153	147	151
9	---	---	---	---	---	---	---	---	---	156	145	149
10	---	---	---	---	---	---	---	---	---	153	147	149
11	---	---	---	---	---	---	---	---	---	160	153	157
12	---	---	---	---	---	---	---	---	---	160	154	156
13	---	---	---	---	---	---	---	---	---	163	155	159
14	---	---	---	---	---	---	---	---	---	231	162	191
15	---	---	---	---	---	---	---	---	---	261	227	241
16	---	---	---	---	---	---	---	---	---	285	250	265
17	---	---	---	---	---	---	---	---	---	289	254	272
18	---	---	---	---	---	---	---	---	---	280	258	264
19	---	---	---	---	---	---	---	---	---	283	246	265
20	---	---	---	---	---	---	---	---	---	282	265	274
21	---	---	---	---	---	---	---	---	---	288	267	277
22	---	---	---	---	---	---	---	---	---	278	265	271
23	---	---	---	---	---	---	---	---	---	287	277	282
24	---	---	---	---	---	---	---	---	---	286	281	283
25	---	---	---	---	---	---	---	---	---	286	279	283
26	---	---	---	---	---	---	---	---	---	309	257	282
27	---	---	---	---	---	---	---	---	---	309	273	288
28	---	---	---	---	---	---	---	---	---	311	268	288
29	---	---	---	---	---	---	---	---	---	277	243	267
30	---	---	---	---	---	---	---	---	---	260	237	247
31	---	---	---	---	---	---	---	---	---	242	234	238
Month	---	---	---	---	---	---	---	---	---	311	125	224

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	236	230	232	284	258	272	310	290	295	285	220	247
2	238	233	235	280	263	275	319	309	314	285	266	270
3	241	233	236	271	257	263	337	304	317	290	258	282
4	260	241	250	292	265	277	341	318	332	258	241	244
5	269	257	263	297	258	276	322	301	309	245	233	236
6	260	231	243	282	252	265	321	307	314	235	221	224
7	248	229	239	290	278	284	313	299	302	222	196	214
8	229	215	220	290	278	284	299	259	272	225	192	202
9	217	201	207	325	290	303	260	238	254	270	225	237
10	202	197	199	344	302	319	283	227	236	276	265	270
11	212	198	203	344	326	334	---	---	---	279	268	273
12	225	207	220	326	316	320	329	280	287	280	274	277
13	230	211	222	322	302	307	285	277	282	282	270	275
14	266	204	246	317	296	306	286	276	280	280	253	270
15	301	265	278	315	304	310	305	280	289	260	247	251
16	308	286	298	313	304	309	314	290	302	270	255	260
17	327	295	308	310	292	297	302	272	280	284	261	270
18	378	135	241	304	276	289	302	297	299	288	271	279
19	175	153	162	303	295	298	299	255	283	291	239	253
20	190	175	183	300	272	278	264	249	259	241	225	233
21	190	175	183	304	291	294	263	230	243	228	212	220
22	177	166	171	309	300	304	266	256	261	212	204	208
23	178	171	174	304	293	298	264	254	257	256	212	221
24	189	177	183	305	292	300	256	231	247	281	256	269
25	194	173	180	316	293	304	268	251	259	285	270	279
26	272	192	217	315	305	311	267	253	257	286	272	279
27	277	215	251	306	280	288	263	230	240	282	256	268
28	244	214	224	293	278	285	255	251	253	---	---	---
29	269	225	249	288	272	279	254	240	249	---	---	---
30	271	258	266	286	273	279	240	198	207	---	---	---
31	---	---	---	292	273	281	224	196	202	---	---	---
Month	378	135	226	344	252	293	341	196	273	291	192	252

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	8.0	7.5	7.8
2	---	---	---	---	---	---	---	---	---	7.9	7.5	7.6
3	---	---	---	---	---	---	---	---	---	7.6	7.5	7.6
4	---	---	---	---	---	---	---	---	---	7.7	7.6	7.6
5	---	---	---	---	---	---	---	---	---	7.6	7.5	7.6
6	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
7	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
8	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
9	---	---	---	---	---	---	---	---	---	7.8	7.6	7.6
10	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
11	---	---	---	---	---	---	---	---	---	7.7	7.6	7.6
12	---	---	---	---	---	---	---	---	---	7.6	7.5	7.6
13	---	---	---	---	---	---	---	---	---	7.5	7.4	7.4
14	---	---	---	---	---	---	---	---	---	7.6	7.2	7.3
15	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
16	---	---	---	---	---	---	---	---	---	7.8	7.7	7.8
17	---	---	---	---	---	---	---	---	---	7.8	7.8	7.8
18	---	---	---	---	---	---	---	---	---	7.8	7.8	7.8
19	---	---	---	---	---	---	---	---	---	7.9	7.8	7.8
20	---	---	---	---	---	---	---	---	---	7.9	7.6	7.8
21	---	---	---	---	---	---	---	---	---	8.0	7.6	7.8
22	---	---	---	---	---	---	---	---	---	8.2	7.6	7.8
23	---	---	---	---	---	---	---	---	---	8.3	7.6	7.9
24	---	---	---	---	---	---	---	---	---	8.2	7.6	7.9
25	---	---	---	---	---	---	---	---	---	8.3	7.4	7.7
26	---	---	---	---	---	---	---	---	---	8.1	7.5	7.7
27	---	---	---	---	---	---	---	---	---	7.7	7.4	7.6
28	---	---	---	---	---	---	---	---	---	7.6	7.3	7.4
29	---	---	---	---	---	---	---	---	---	7.5	7.4	7.4
30	---	---	---	---	---	---	---	---	---	7.4	7.3	7.4
31	---	---	---	---	---	---	---	---	---	7.6	7.3	7.4
Max	---	---	---	---	---	---	---	---	---	8.3	7.8	7.9
Min	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	7.7	7.5	7.5	7.6	7.5	7.5	7.9	7.5	7.6	7.9	7.4	7.6
2	7.7	7.6	7.6	7.7	7.6	7.6	8.0	7.5	7.7	8.2	7.4	7.6
3	7.6	7.5	7.6	7.7	7.6	7.6	8.2	7.5	7.8	8.3	7.7	7.9
4	7.7	7.5	7.5	7.7	7.6	7.6	8.2	7.5	7.8	8.2	7.6	7.8
5	7.6	7.5	7.6	7.8	7.5	7.7	8.1	7.5	7.6	8.2	7.6	7.8
6	7.6	7.4	7.5	7.8	7.6	7.7	8.0	7.4	7.6	8.1	7.5	7.7
7	7.6	7.4	7.5	7.9	7.7	7.8	8.1	7.5	7.7	7.8	7.5	7.6
8	7.6	7.4	7.5	7.9	7.8	7.9	8.0	7.5	7.8	7.7	7.4	7.5
9	7.6	7.4	7.5	8.1	7.8	8.0	7.9	7.4	7.6	8.0	7.5	7.6
10	7.5	7.1	7.2	8.1	7.5	7.8	7.7	7.4	7.5	8.0	7.6	7.7
11	7.1	7.0	7.0	8.0	7.5	7.7	---	---	---	8.1	7.6	7.7
12	7.6	7.1	7.2	8.0	7.5	7.7	7.9	7.5	7.6	8.0	7.6	7.7
13	7.7	7.2	7.2	8.0	7.5	7.7	8.0	7.5	7.7	8.0	7.5	7.6
14	7.6	7.1	7.3	8.0	7.5	7.7	7.9	7.5	7.8	8.0	7.5	7.7
15	7.5	7.1	7.3	8.1	7.5	7.7	7.9	7.5	7.8	8.0	7.4	7.6
16	7.5	7.1	7.2	8.1	7.5	7.7	7.8	7.5	7.7	8.1	7.4	7.6
17	7.4	7.1	7.2	7.8	7.5	7.7	8.0	7.4	7.7	8.0	7.4	7.6
18	7.5	7.2	7.3	7.7	7.4	7.6	7.9	7.6	7.7	8.0	7.4	7.7
19	7.4	7.2	7.3	8.2	7.5	7.6	7.8	7.6	7.6	7.9	7.4	7.6
20	7.5	7.2	7.4	8.1	7.6	7.8	7.8	7.5	7.6	7.9	7.3	7.5
21	7.5	7.1	7.5	8.1	7.6	7.8	7.6	7.4	7.6	7.7	7.3	7.5
22	7.5	7.2	7.4	8.2	7.7	7.9	7.7	7.5	7.5	7.5	7.2	7.4
23	7.5	7.2	7.4	8.1	7.7	7.9	7.7	7.5	7.6	8.0	7.3	7.5
24	7.5	7.2	7.4	8.3	7.7	7.9	7.8	7.6	7.6	7.7	7.3	7.5
25	7.5	7.1	7.4	8.7	7.8	8.0	7.9	7.6	7.7	8.5	7.3	7.6
26	7.6	7.4	7.5	8.7	7.9	8.3	8.0	7.6	7.7	8.1	7.7	7.8
27	7.7	7.3	7.6	8.5	7.8	8.2	7.9	7.5	7.7	8.0	7.6	7.6
28	7.4	7.2	7.4	8.6	7.8	8.1	7.9	7.6	7.6	---	---	---
29	7.4	7.2	7.3	8.3	7.8	7.9	7.8	7.4	7.6	---	---	---
30	7.5	7.2	7.3	7.9	7.6	7.7	7.7	7.3	7.4	---	---	---
31	---	---	---	7.8	7.5	7.6	7.8	7.3	7.4	---	---	---
Max	7.7	7.6	7.6	8.7	7.9	8.3	8.2	7.6	7.8	8.5	7.7	7.9
Min	7.1	7.0	7.0	7.6	7.4	7.5	7.6	7.3	7.4	7.5	7.2	7.4

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	16.2	14.6	15.3
2	---	---	---	---	---	---	---	---	---	16.1	13.8	14.8
3	---	---	---	---	---	---	---	---	---	13.8	12.9	13.4
4	---	---	---	---	---	---	---	---	---	13.4	11.4	12.4
5	---	---	---	---	---	---	---	---	---	11.4	11.1	11.3
6	---	---	---	---	---	---	---	---	---	11.8	10.8	11.3
7	---	---	---	---	---	---	---	---	---	12.7	11.6	12.1
8	---	---	---	---	---	---	---	---	---	12.8	12.2	12.5
9	---	---	---	---	---	---	---	---	---	13.4	12.2	12.7
10	---	---	---	---	---	---	---	---	---	13.3	12.7	13.0
11	---	---	---	---	---	---	---	---	---	12.7	11.4	11.9
12	---	---	---	---	---	---	---	---	---	12.7	10.8	11.7
13	---	---	---	---	---	---	---	---	---	13.2	11.6	12.4
14	---	---	---	---	---	---	---	---	---	14.8	12.5	13.5
15	---	---	---	---	---	---	---	---	---	17.1	13.8	15.1
16	---	---	---	---	---	---	---	---	---	18.6	16.7	17.6
17	---	---	---	---	---	---	---	---	---	18.3	16.8	17.4
18	---	---	---	---	---	---	---	---	---	16.8	14.8	15.9
19	---	---	---	---	---	---	---	---	---	17.6	14.1	15.8
20	---	---	---	---	---	---	---	---	---	19.1	14.7	16.9
21	---	---	---	---	---	---	---	---	---	20.7	16.5	18.6
22	---	---	---	---	---	---	---	---	---	21.6	18.5	20.0
23	---	---	---	---	---	---	---	---	---	22.6	20.0	21.3
24	---	---	---	---	---	---	---	---	---	23.6	21.5	22.4
25	---	---	---	---	---	---	---	---	---	24.1	21.2	22.6
26	---	---	---	---	---	---	---	---	---	23.3	20.2	21.8
27	---	---	---	---	---	---	---	---	---	20.2	18.1	19.2
28	---	---	---	---	---	---	---	---	---	21.1	18.9	19.9
29	---	---	---	---	---	---	---	---	---	20.3	18.3	19.3
30	---	---	---	---	---	---	---	---	---	19.3	17.4	18.3
31	---	---	---	---	---	---	---	---	---	19.0	17.4	18.2
Month	---	---	---	---	---	---	---	---	---	24.1	10.8	16.1

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	18.2	16.2	17.4	21.1	19.5	20.4	24.4	21.7	23.0	22.4	19.0	20.5
2	20.2	17.0	18.5	20.5	18.7	19.5	24.3	22.9	23.6	22.7	19.1	20.7
3	19.5	17.2	18.5	19.1	18.1	18.5	25.2	22.6	23.8	22.8	19.2	20.8
4	17.5	16.5	17.0	20.8	18.0	19.3	25.6	23.0	24.1	23.5	19.7	21.3
5	16.9	16.0	16.5	22.4	18.8	20.5	24.2	22.5	23.4	23.7	20.5	21.8
6	17.3	15.3	16.2	23.3	19.9	21.5	24.4	21.0	22.6	23.3	20.5	21.8
7	19.4	16.5	17.9	24.4	21.3	22.6	24.9	21.6	23.0	22.0	21.2	21.7
8	20.5	18.6	19.6	24.0	21.0	22.5	24.8	22.6	23.6	22.0	20.9	21.3
9	20.6	19.0	19.7	25.0	21.1	22.9	26.3	23.0	24.4	22.1	20.4	21.0
10	19.9	17.9	18.6	26.2	22.0	24.0	27.7	24.6	25.8	22.0	20.3	21.0
11	17.9	17.0	17.5	24.9	23.2	24.0	---	---	---	20.8	19.0	19.9
12	18.0	17.3	17.6	26.0	22.9	24.2	24.6	23.3	23.8	20.2	19.3	19.7
13	19.8	17.2	18.4	25.5	22.7	23.9	25.1	22.4	23.4	22.5	19.1	20.5
14	22.4	18.2	20.2	24.8	21.6	23.1	26.9	23.1	24.6	22.5	19.9	21.1
15	23.5	19.8	21.7	25.6	21.8	23.4	27.7	24.5	25.9	23.3	20.3	21.6
16	23.8	20.7	22.3	26.2	23.4	24.6	28.4	25.1	26.5	23.1	20.6	21.7
17	22.4	20.6	21.6	24.6	22.6	23.6	28.8	25.5	26.9	22.7	19.6	21.1
18	20.6	17.2	18.8	22.6	20.8	21.6	27.2	25.7	26.4	23.0	19.7	21.2
19	18.1	16.8	17.4	23.1	19.6	21.2	27.2	25.3	26.1	22.7	19.7	21.0
20	20.1	18.0	18.8	21.9	20.4	21.0	27.1	24.6	25.7	22.2	19.2	20.5
21	20.1	18.8	19.5	22.4	20.1	21.1	26.5	24.7	25.4	22.3	20.6	21.4
22	19.1	17.8	18.4	22.9	20.8	21.6	26.2	24.0	24.9	22.8	20.9	21.6
23	20.0	17.8	18.8	23.5	21.6	22.4	24.6	22.8	23.7	23.7	21.1	22.3
24	20.9	18.6	19.7	24.9	21.8	23.1	24.5	21.7	22.9	23.3	21.8	22.5
25	21.7	19.3	20.5	24.2	22.1	23.1	25.5	21.9	23.4	22.6	21.3	21.9
26	21.4	20.2	20.6	24.6	22.1	23.1	25.9	22.9	24.2	21.3	18.9	20.1
27	22.4	19.1	20.7	25.3	22.3	23.6	25.8	23.6	24.5	18.9	18.1	18.6
28	22.3	20.4	21.4	25.9	22.5	24.1	24.5	23.5	23.9	---	---	---
29	23.2	20.8	22.1	24.2	22.7	23.4	24.2	22.5	23.2	---	---	---
30	22.8	20.9	21.5	23.8	22.2	22.9	22.8	21.1	22.0	---	---	---
31	---	---	---	23.1	22.0	22.7	22.1	19.6	20.8	---	---	---
Month	23.8	15.3	19.2	26.2	18.0	22.4	28.8	19.6	24.2	23.7	18.1	21.1

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	10.0	9.2	9.5
2	---	---	---	---	---	---	---	---	---	9.7	8.8	9.2
3	---	---	---	---	---	---	---	---	---	9.9	9.5	9.6
4	---	---	---	---	---	---	---	---	---	10.3	9.8	9.9
5	---	---	---	---	---	---	---	---	---	10.6	10.3	10.5
6	---	---	---	---	---	---	---	---	---	10.6	10.3	10.5
7	---	---	---	---	---	---	---	---	---	10.4	10.2	10.3
8	---	---	---	---	---	---	---	---	---	10.2	10.0	10.1
9	---	---	---	---	---	---	---	---	---	10.2	10.0	10.1
10	---	---	---	---	---	---	---	---	---	10.2	9.9	10.1
11	---	---	---	---	---	---	---	---	---	10.5	10.1	10.2
12	---	---	---	---	---	---	---	---	---	10.6	10.3	10.4
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	10.5	9.6	10.0
21	---	---	---	---	---	---	---	---	---	10.5	9.2	9.8
22	---	---	---	---	---	---	---	---	---	10.6	8.7	9.7
23	---	---	---	---	---	---	---	---	---	10.7	8.4	9.7
24	---	---	---	---	---	---	---	---	---	10.2	8.1	9.3
25	---	---	---	---	---	---	---	---	---	10.4	7.8	9.2
26	---	---	---	---	---	---	---	---	---	9.4	7.6	8.5
27	---	---	---	---	---	---	---	---	---	9.8	8.5	9.0
28	---	---	---	---	---	---	---	---	---	9.2	7.2	8.3
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	10.7	7.2	9.7

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	---	---	---	---	---	---	9.5	7.7	8.5	9.6	7.8	8.7
2	---	---	---	---	---	---	9.4	7.4	8.4	9.8	8.3	9.0
3	9.1	8.4	8.6	---	---	---	10.1	7.6	8.7	9.9	8.3	9.0
4	---	---	---	---	---	---	10.6	7.4	8.9	9.9	8.2	9.0
5	---	---	---	---	---	---	9.1	7.2	8.2	9.9	8.1	8.9
6	---	---	---	---	---	---	10.3	7.7	8.9	9.9	8.0	8.9
7	---	---	---	---	---	---	10.7	7.7	9.1	9.0	7.8	8.4
8	---	---	---	---	---	---	10.2	7.6	8.8	9.2	7.8	8.5
9	---	---	---	---	---	---	10.0	7.4	8.6	9.6	8.0	8.7
10	---	---	---	9.4	7.5	8.5	9.5	7.3	8.3	9.7	8.0	8.8
11	---	---	---	9.0	7.3	8.2	---	---	---	10.0	8.2	9.0
12	---	---	---	9.2	7.4	8.3	8.8	7.2	8.0	9.7	8.0	8.8
13	---	---	---	9.2	7.3	8.2	9.2	7.5	8.3	9.7	8.2	9.0
14	---	---	---	9.4	7.4	8.4	9.2	7.5	8.4	9.7	8.0	8.8
15	---	---	---	9.8	7.5	8.6	9.1	7.2	8.1	9.8	7.8	8.7
16	---	---	---	9.3	7.3	8.3	9.0	7.1	8.0	9.9	7.7	8.7
17	---	---	---	8.7	7.1	7.8	8.8	7.1	7.9	10.2	7.8	8.9
18	---	---	---	8.7	7.3	8.0	8.4	7.1	7.7	9.9	7.7	8.9
19	---	---	---	10.0	8.0	8.9	8.4	7.2	7.7	10.0	7.8	8.9
20	---	---	---	10.0	8.1	8.9	8.5	7.2	7.7	10.4	8.1	9.1
21	---	---	---	10.1	8.0	9.0	8.1	7.0	7.5	9.9	8.0	8.8
22	---	---	---	10.5	8.2	9.3	8.1	7.1	7.6	9.8	7.5	8.5
23	---	---	---	9.9	7.8	8.7	8.2	7.0	7.6	10.2	7.5	8.7
24	---	---	---	10.3	7.0	8.5	8.6	7.4	8.0	9.5	7.4	8.3
25	---	---	---	10.5	7.0	8.3	8.8	7.4	8.0	10.3	7.4	8.6
26	---	---	---	10.4	7.8	9.0	8.8	7.4	8.1	9.0	7.9	8.4
27	---	---	---	10.5	7.9	9.2	8.6	7.3	7.9	9.8	8.2	8.8
28	---	---	---	10.7	7.8	9.1	8.6	7.4	7.9	---	---	---
29	---	---	---	9.0	7.5	8.0	8.6	7.5	8.0	---	---	---
30	---	---	---	9.0	7.3	8.1	8.9	7.5	8.2	---	---	---
31	---	---	---	8.6	7.6	8.0	9.2	8.0	8.5	---	---	---
Month	9.1	8.4	8.6	10.7	7.0	8.5	10.7	7.0	8.2	10.4	7.4	8.8