

Water-Data Report 2007

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. 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. Several measurements of water temperature were made during the year.

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,100	2,330	1,840	2,320	2,520	4,170	4,620	3,330	913	1,170	706	1,240
2	1,030	2,700	2,200	2,700	2,480	10,500	5,160	3,140	998	999	659	1,310
3	1,000	3,250	2,010	2,460	2,590	16,300	4,880	2,710	1,230	702	617	1,250
4	834	2,600	1,810	2,170	2,550	9,630	4,260	2,400	1,380	659	628	1,180
5	999	2,150	1,650	2,230	2,270	6,550	3,980	2,210	1,290	810	837	1,060
6	1,060	1,890	1,540	3,230	e2,360	5,150	3,370	2,070	1,150	1,660	1,750	1,010
7	1,110	1,690	1,450	2,960	e2,330	4,330	3,100	1,920	898	1,230	1,110	1,040
8	1,110	1,690	1,460	4,950	e2,310	3,790	2,930	1,780	863	1,110	1,160	959
9	1,080	1,730	1,270	6,470	e1,770	2,940	2,780	1,680	1,090	902	2,060	1,140
10	1,010	1,680	1,250	4,720	e1,650	2,700	2,650	1,600	1,110	688	4,490	1,150
11	991	1,740	1,400	3,620	e1,850	4,470	2,560	1,530	991	707	2,750	1,380
12	1,200	4,330	1,420	3,060	e1,760	7,010	3,240	1,450	764	879	1,630	2,060
13	1,270	5,230	1,400	4,140	e1,610	6,310	5,430	1,340	780	788	1,140	1,690
14	1,200	3,580	1,410	8,300	e1,500	8,290	4,490	1,220	852	865	904	1,390
15	1,100	2,950	1,390	10,300	e1,450	16,000	9,510	1,070	845	953	797	1,110
16	1,040	5,070	1,340	11,300	e1,510	18,200	15,100	1,130	862	904	1,130	867
17	1,830	12,000	1,300	9,110	e1,520	11,700	12,100	1,900	997	692	1,100	1,150
18	3,210	7,950	1,260	7,850	e1,470	8,960	12,400	1,990	965	750	972	1,110
19	2,770	5,150	1,230	7,320	e1,460	7,980	11,400	1,750	800	772	961	1,100
20	4,690	4,010	1,190	6,750	e1,510	15,200	10,100	1,980	1,070	990	1,060	1,030
21	3,920	3,290	1,160	6,050	e2,470	16,000	8,850	1,760	860	994	13,100	1,030
22	2,770	2,790	1,200	5,460	e3,890	11,900	7,730	1,500	917	1,030	13,700	1,020
23	2,200	2,470	1,530	3,950	e3,620	14,300	7,000	1,340	860	878	7,780	1,010
24	1,890	2,260	2,070	3,410	e3,080	20,100	6,580	1,230	1,010	662	4,410	1,170
25	1,670	2,070	1,940	3,210	e3,240	19,500	6,300	1,170	941	825	3,000	1,010
26	1,390	1,880	2,020	2,970	e3,610	13,600	5,470	1,270	704	685	2,680	958
27	1,240	1,720	3,440	2,850	e3,630	11,000	5,200	1,340	672	658	2,050	1,110
28	2,630	1,740	3,120	2,920	e3,700	11,000	4,600	1,420	818	756	1,610	1,390
29	5,380	1,770	2,620	2,830	---	8,890	3,950	1,420	1,220	983	1,350	1,250
30	3,710	1,710	2,370	2,590	---	7,030	3,660	1,120	1,070	1,110	1,230	1,100
31	2,710	---	2,220	2,580	---	5,450	---	978	---	754	1,170	---
Total	59,144	95,420	53,510	144,780	65,710	308,950	183,400	52,748	28,920	27,565	78,541	35,274
Mean	1,908	3,181	1,726	4,670	2,347	9,966	6,113	1,702	964	889	2,534	1,176
Max	5,380	12,000	3,440	11,300	3,890	20,100	15,100	3,330	1,380	1,660	13,700	2,060
Min	834	1,680	1,160	2,170	1,450	2,700	2,560	978	672	658	617	867

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,523	2,193	3,547	4,073	4,505	5,934	4,949	3,659	2,305	1,563	1,468	1,417
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

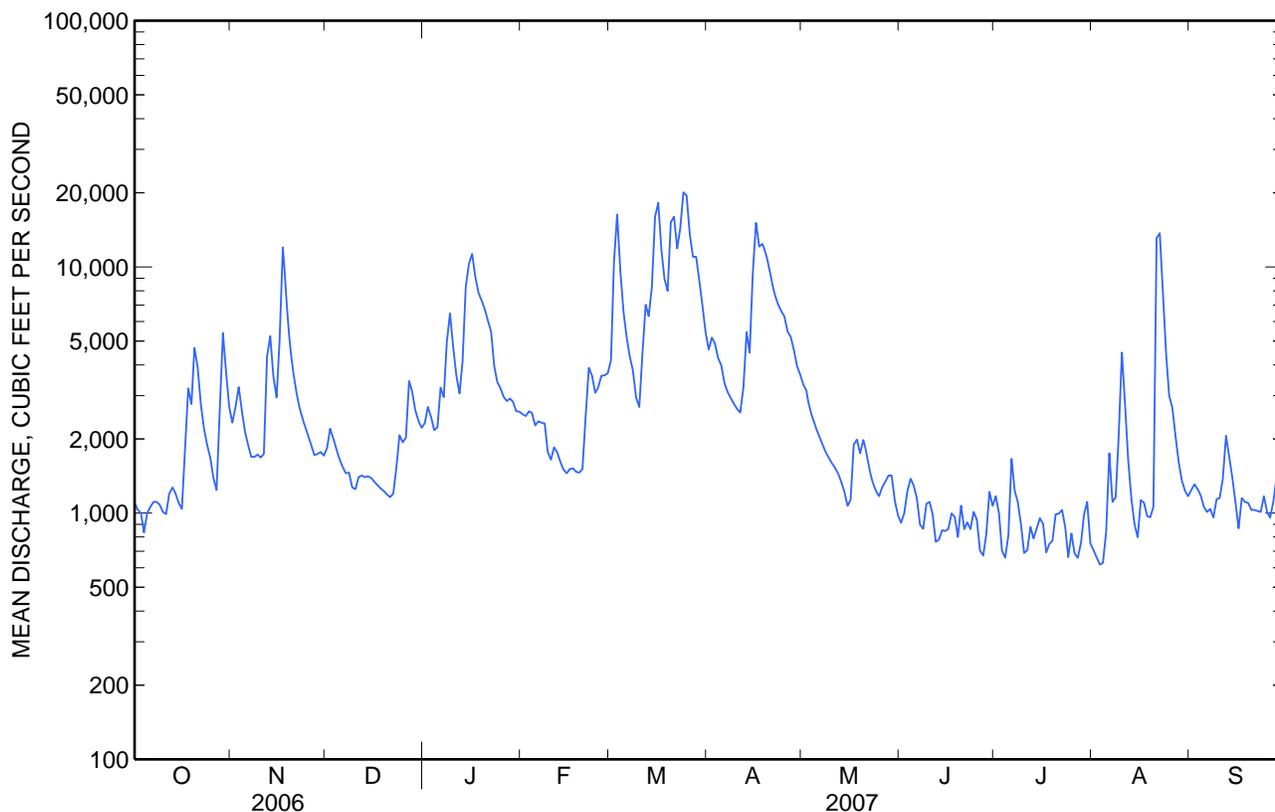
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1921 - 2007	
Annual total	976,749		1,133,962			
Annual mean	2,676		3,107		3,091	
Highest annual mean					4,604	2004
Lowest annual mean					1,496	1925
Highest daily mean	12,900	Jan 24	20,100	Mar 24	79,000	Mar 18, 1936
Lowest daily mean	834	Oct 4	617	Aug 3	57	Sep 30, 1922
Annual seven-day minimum	973	Aug 22	759	Jul 30	64	Sep 24, 1922
Maximum peak flow			22,300	Mar 15	^a 108,000	Oct 16, 1954
Maximum peak stage			12.99	Mar 15	^b 32.50	Oct 16, 1954
Instantaneous low flow					^c 57	Sep 29, 1922
10 percent exceeds	5,890		7,750		6,840	
50 percent exceeds	1,840		1,740		1,940	
90 percent exceeds	1,030		874		710	

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

^b From floodmark.

^c Minimum observed.



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.--Automated sampler interfaced with a data collection platform with 60-minute recording interval.

REMARKS.--Specific conductance record rated fair. pH record rated fair, except for periods Aug 22-25 and Aug 29 to Sep 5, which are poor. Dissolved oxygen records rated poor. Water temperature record rated good. Data collection discontinued during winter months. Analysis for pH, water temperature, specific conductance, and dissolved oxygen is 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 2006 TO SEPTEMBER 2007**

Part 1 of 3

[Remark codes: <, less than.]

Date	Time	Instan- taneous dis- charge, cfs (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, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover mg/L (00916)	Magnes- ium, water, unfltrd recover mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Fluor- ide, water, unfltrd mg/L (00951)
Nov													
02...	1345	2,610	10.8	7.5	7.6	278	266	9.8	87	24.5	6.4	42	<.2
Jan													
03...	1400	2,340	13.5	7.3	7.7	249	248	4.5	78	21.6	5.8	31	<.2
Mar													
05...	1100	6,580	13.4	7.0	7.4	231	230	2.0	65	17.9	4.9	22	<.2
May													
08...	1325	1,710	10.8	7.5	8.0	365	373	16.1	110	30.1	9.2	37	<.2
Jul													
09...	1100	948	8.5	7.4	7.4	391	407	24.9	130	34.7	10.1	40	<.2
Sep													
10...	1145	1,120	8.2	7.4	7.9	306	318	23.2	96	27.0	7.0	39	<.2

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 3

[Remark codes: <, less than.]

Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total non- filter- able, 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)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, unfltrd mg/L (00665)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen- able to chlor- ination wat unf mg/L (00722)	Iron, water, unfltrd recover -able, µg/L (01045)
Nov 02...	53.2	188	12	.020	.97	<.040	1.1	.01	.041	200	<10	<1.00	760
Jan 03...	53.5	206	24	<.020	.94	<.040	1.1	<.01	.014	<200	<10	<1.00	240
Mar 05...	35.1	186	16	<.020	1.42	<.040	1.6	.02	.033	500	<10	<1.00	930
May 08...	93.6	266	4	.030	.66	<.040	.78	<.01	.013	<200	<10	<1.00	300
Jul 09...	98.3	140	6	<.020	.78	<.040	1.0	.01	.022	300	<10	<1.00	690
Sep 10...	71.6	190	2	.030	.66	<.040	.81	<.01	.018	<200	<10	<1.00	180

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 3

[Remark codes: <, less than.]

Date	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)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
Nov 02...	<1.0	90	<50	<10	<5
Jan 03...	<1.0	50	<50	<10	<5
Mar 05...	<1.0	170	<50	20	<5
May 08...	<1.0	70	<50	<10	<5
Jul 09...	<1.0	110	<50	10	<5
Sep 10...	<1.0	40	<50	<10	<5

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	---	---	---	323	297	304	---	---	---	---	---	---
2	---	---	---	324	257	286	---	---	---	263	250	254
3	---	---	---	385	313	356	---	---	---	257	240	244
4	---	---	---	354	338	344	---	---	---	248	244	247
5	---	---	---	353	322	344	342	281	305	250	241	245
6	341	285	301	362	302	319	377	263	298	253	247	250
7	368	331	344	317	291	305	322	287	295	253	248	251
8	392	364	379	314	286	299	335	310	331	259	244	249
9	---	---	---	349	312	326	330	306	315	266	236	247
10	---	---	---	---	---	---	328	278	296	---	---	---
11	338	319	325	356	326	342	314	256	274	---	---	---
12	352	320	332	337	315	328	358	302	341	237	218	226
13	355	341	349	338	307	316	377	356	364	230	217	225
14	407	351	367	311	302	307	377	368	371	258	229	243
15	407	357	376	308	285	292	372	352	359	258	244	250
16	385	343	367	319	289	309	---	---	---	272	253	267
17	368	339	347	322	302	311	335	324	329	271	243	249
18	363	323	342	---	---	---	330	284	302	246	229	235
19	338	320	328	326	303	313	339	317	331	240	233	236
20	340	293	320	326	310	320	351	326	341	241	233	237
21	362	335	350	316	292	297	358	268	330	235	228	230
22	367	345	354	296	284	288	---	---	---	230	225	227
23	363	349	354	308	284	298	---	---	---	---	---	---
24	360	292	344	311	304	308	---	---	---	229	215	222
25	342	292	330	---	---	---	---	---	---	222	213	216
26	340	322	331	---	---	---	---	---	---	222	214	218
27	349	283	319	---	---	---	---	---	---	225	216	221
28	363	326	344	---	---	---	---	---	---	221	212	217
29	353	310	338	---	---	---	---	---	---	226	210	215
30	324	310	316	---	---	---	---	---	---	230	224	225
31	---	---	---	---	---	---	274	266	270	---	---	---
Month	407	283	342	385	257	314	377	256	321	272	210	236

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	---	---	---	7.6	7.2	7.3	---	---	---	7.6	7.2	7.3
2	---	---	---	7.2	7.0	7.1	---	---	---	7.7	6.9	7.3
3	---	---	---	7.0	6.9	7.0	8.1	7.1	7.8	7.7	7.0	7.3
4	---	---	---	7.9	6.9	7.0	---	---	---	7.7	7.0	7.3
5	---	---	---	7.9	7.4	7.5	8.2	7.4	7.5	7.6	7.0	7.2
6	7.5	7.1	7.3	7.8	7.5	7.6	7.6	7.4	7.5	---	---	---
7	7.5	7.2	7.3	---	---	---	7.8	7.6	7.7	---	---	---
8	7.7	7.2	7.3	7.6	7.4	7.5	7.8	7.6	7.7	---	---	---
9	---	---	---	7.8	7.4	7.7	7.7	7.5	7.6	---	---	---
10	---	---	---	8.0	7.7	7.9	7.7	7.5	7.6	---	---	---
11	7.7	7.3	7.4	8.0	7.4	7.6	7.7	7.5	7.6	---	---	---
12	7.7	7.3	7.5	8.0	7.4	7.6	7.8	7.6	7.7	---	---	---
13	---	---	---	8.3	7.5	7.8	7.9	7.7	7.8	---	---	---
14	7.7	7.3	7.4	8.5	7.5	7.9	---	---	---	---	---	---
15	7.8	7.4	7.6	8.5	7.5	7.9	---	---	---	---	---	---
16	7.8	7.4	7.6	8.4	7.4	7.7	8.2	7.8	7.9	---	---	---
17	7.8	7.4	7.6	8.4	7.4	7.8	8.3	7.7	8.0	---	---	---
18	7.7	7.4	7.6	8.3	7.4	7.6	8.4	7.8	8.0	---	---	---
19	7.6	7.4	7.5	8.0	7.3	7.6	8.4	7.6	7.8	---	---	---
20	7.6	7.4	7.5	7.7	7.3	7.5	8.0	7.6	7.7	---	---	---
21	---	---	---	7.9	7.4	7.5	7.9	7.2	7.3	---	---	---
22	---	---	---	8.0	7.4	7.6	7.3	7.1	7.2	---	---	---
23	7.7	7.4	7.6	8.0	7.4	7.6	7.3	7.2	7.3	---	---	---
24	7.7	7.4	7.5	7.9	7.4	7.6	7.3	7.2	7.2	---	---	---
25	7.7	7.4	7.5	---	---	---	7.3	7.2	7.2	---	---	---
26	7.8	7.4	7.6	---	---	---	---	---	---	---	---	---
27	7.8	7.5	7.6	---	---	---	---	---	---	---	---	---
28	7.8	7.4	7.5	---	---	---	---	---	---	---	---	---
29	7.8	7.3	7.5	---	---	---	---	---	---	---	---	---
30	7.6	7.4	7.5	---	---	---	7.6	7.2	7.3	---	---	---
31	---	---	---	---	---	---	7.6	7.2	7.4	---	---	---
Max	7.8	7.5	7.6	8.5	7.7	7.9	8.4	7.8	8.0	7.7	7.2	7.3
Min	7.5	7.1	7.3	7.0	6.9	7.0	7.3	7.1	7.2	7.6	6.9	7.2

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	---	---	---	23.5	20.5	21.9	---	---	---	24.7	22.1	23.3
2	---	---	---	23.3	19.5	21.3	27.0	23.3	25.4	24.4	21.5	22.8
3	---	---	---	25.4	20.1	22.2	29.0	23.1	26.2	24.7	22.2	23.3
4	---	---	---	25.2	21.7	22.8	---	---	---	25.2	22.5	23.7
5	---	---	---	23.2	21.8	22.3	29.2	24.5	26.1	26.0	23.2	24.3
6	21.4	18.7	20.0	23.4	20.7	22.0	24.8	22.9	23.7	26.4	23.5	24.7
7	24.2	18.9	21.0	25.0	21.3	22.9	24.4	22.7	23.3	26.6	24.0	25.1
8	25.7	21.8	23.4	26.0	22.1	23.8	---	---	---	26.7	24.3	25.3
9	26.4	22.8	24.2	27.9	23.6	25.3	25.7	23.8	24.7	26.4	23.9	24.8
10	26.0	22.2	24.0	29.1	24.5	26.5	24.0	22.4	23.0	---	---	---
11	25.1	21.8	23.4	28.8	24.6	26.1	23.7	21.4	22.4	---	---	---
12	26.1	21.3	23.4	25.9	22.7	24.2	25.5	22.1	23.6	22.5	20.2	21.2
13	---	---	---	25.6	22.5	23.7	26.5	23.9	25.0	21.7	19.2	20.4
14	25.5	22.6	23.7	25.1	21.6	23.1	26.0	23.4	24.6	21.2	19.5	20.4
15	24.7	21.1	22.8	25.1	22.4	23.6	25.9	22.4	23.9	20.7	18.3	19.6
16	---	---	---	26.1	22.2	23.8	25.9	23.5	24.5	---	---	---
17	25.4	21.7	23.2	26.5	22.3	24.2	26.5	24.4	25.3	19.4	16.1	17.6
18	26.3	22.8	24.4	---	---	---	26.0	22.7	24.0	20.2	17.1	18.4
19	25.8	23.5	24.4	26.0	23.9	24.6	24.6	20.9	22.2	21.2	18.3	19.4
20	---	---	---	24.9	22.2	23.1	21.4	20.0	20.7	22.0	19.4	20.4
21	---	---	---	23.7	20.5	22.0	21.0	18.9	19.8	23.0	20.2	21.3
22	24.7	21.6	23.0	24.2	20.5	22.2	19.9	18.8	19.2	23.6	21.1	22.1
23	24.4	20.7	22.2	23.6	20.6	21.5	21.5	19.4	20.2	23.4	21.3	22.3
24	---	---	---	22.7	19.4	21.1	23.4	20.9	21.9	22.7	20.3	21.4
25	23.1	20.6	21.7	23.2	20.3	21.6	24.2	22.7	23.4	23.4	20.6	21.7
26	26.3	20.6	23.0	24.1	20.5	22.5	24.8	23.1	23.9	---	---	---
27	28.0	23.6	25.7	---	---	---	25.2	22.6	23.9	23.1	21.6	22.2
28	27.2	24.6	25.5	25.1	22.1	23.0	25.6	22.6	24.1	21.9	20.3	21.1
29	---	---	---	---	---	---	---	---	---	20.9	18.8	19.9
30	---	---	---	---	---	---	---	---	---	20.5	18.2	19.3
31	---	---	---	25.6	22.0	24.1	25.7	23.8	24.7	---	---	---
Month	28.0	18.7	23.3	29.1	19.4	23.2	29.2	18.8	23.4	26.7	16.1	21.8

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	---	---	---	---	---	---	---	---	---	9.8	7.9	8.8
2	---	---	---	---	---	---	---	---	---	10.1	7.9	8.9
3	---	---	---	---	---	---	---	---	---	10.0	7.7	8.9
4	---	---	---	---	---	---	---	---	---	9.8	7.6	8.7
5	---	---	---	9.3	7.0	8.0	9.3	6.7	7.5	9.6	7.3	8.5
6	9.7	7.8	8.7	---	---	---	8.4	7.0	7.5	9.2	7.1	8.2
7	9.8	7.8	8.9	---	---	---	9.0	7.7	8.2	8.8	7.1	7.9
8	9.6	7.2	8.2	---	---	---	---	---	---	9.0	6.9	7.8
9	---	---	---	---	---	---	---	---	---	8.6	6.9	7.7
10	---	---	---	---	---	---	---	---	---	---	---	---
11	8.8	7.0	7.9	8.8	6.7	7.6	8.2	7.4	7.8	---	---	---
12	8.6	7.1	7.9	9.5	7.2	8.1	8.4	7.6	8.0	---	---	---
13	---	---	---	10.2	7.6	8.8	8.5	7.4	7.9	---	---	---
14	8.6	6.6	7.5	10.7	8.0	9.2	9.0	7.5	8.1	---	---	---
15	8.9	7.4	8.0	10.6	8.0	9.2	9.3	7.6	8.3	---	---	---
16	9.0	7.1	8.2	10.6	7.7	9.0	9.2	7.6	8.3	---	---	---
17	8.9	7.3	8.0	10.7	7.8	9.2	9.5	7.5	8.5	---	---	---
18	8.8	6.8	7.9	10.2	7.3	8.6	10.2	7.8	8.8	---	---	---
19	---	---	---	9.6	7.2	8.2	9.9	7.6	8.4	---	---	---
20	---	---	---	9.2	7.2	8.1	9.5	8.0	8.7	---	---	---
21	---	---	---	10.0	7.9	8.8	---	---	---	---	---	---
22	---	---	---	10.2	8.1	9.1	---	---	---	---	---	---
23	9.0	7.1	8.0	10.2	8.0	9.0	---	---	---	---	---	---
24	---	---	---	10.0	8.2	9.1	---	---	---	---	---	---
25	9.1	6.7	7.8	---	---	---	---	---	---	---	---	---
26	9.2	7.2	8.5	---	---	---	---	---	---	---	---	---
27	8.9	7.3	8.0	---	---	---	---	---	---	---	---	---
28	8.2	6.3	7.1	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	9.2	7.6	8.4	---	---	---
31	---	---	---	---	---	---	9.3	7.5	8.4	---	---	---
Month	9.8	6.3	8.0	10.7	6.7	8.7	10.2	6.7	8.2	10.1	6.9	8.4