

YOUGHIOGHENY RIVER BASIN

**03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA
(Pennsylvania Water-Quality Network Station)**

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

DRAINAGE AREA.--1,715 mi².

WATER-DISCHARGE 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.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since January 1925 by Deep Creek Reservoir (station 03076000), since December 1942 by Youghiogheny River Lake (station 03077000) 58 mi upstream, and by several smaller reservoirs above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

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	887	2090	2980	e6050	e1680	e3420	2650	1170	8240	1120	1880	1920
2	828	1730	2850	e15600	e1680	e3160	3050	1210	9790	1060	1860	2890
3	807	1620	2710	e10600	e1700	e3160	3490	1120	9720	1010	1770	3950
4	897	1430	2490	e7960	e2510	e3100	3040	1140	e22400	1070	2660	4680
5	1020	1300	1770	e6790	e3680	e3160	3920	1410	15100	1420	2200	2840
6	994	1510	2020	e5890	e3020	6680	6440	2140	11600	1300	1860	2600
7	931	3630	2440	e4950	e2610	9960	6390	3770	11000	1340	1690	2330
8	871	2950	2390	e4260	e2220	7260	9220	5190	12200	2060	1910	2170
9	856	2330	2370	e3740	e1930	8460	8340	12300	9990	4340	2140	2350
10	846	1970	1620	e3420	e1890	10100	7830	17400	9150	4760	2990	2330
11	879	2000	1020	e3140	e1780	7390	7390	17700	7890	6570	1960	2220
12	1000	2130	2310	e2960	e1700	6140	7260	10200	6510	7220	1750	2150
13	1310	2170	2880	e2900	e1630	6210	6420	10700	6300	6330	1760	1880
14	1190	2570	5740	e2880	e1500	10200	5560	12200	5170	5880	1480	1630
15	975	2090	5200	e2880	e1440	10500	5860	10200	3730	5620	1210	1870
16	1250	1820	4000	e2830	e1240	11200	5520	9230	3280	3600	1350	2320
17	1690	2550	3570	e2820	e1070	12900	5180	8700	3970	3140	1500	2170
18	1950	4080	3330	e2760	e1240	13600	3720	8240	4850	2580	1560	2080
19	1350	3430	3270	e2720	e1390	12700	2800	7880	5960	1950	1450	4090
20	1250	3450	4790	e2500	e1430	9340	2550	6670	4450	1600	1390	12100
21	1160	3180	9290	e2250	e1530	10000	2500	4760	3790	1510	1400	7190
22	1120	3040	6130	e2040	e2410	10700	2300	4140	3800	1590	1420	6670
23	1100	2880	5370	e2020	e10200	9920	2020	3780	3630	1650	1410	7650
24	1060	2570	3860	e1970	e8790	8740	1790	4760	3240	1700	1390	8390
25	1010	2410	e3110	e1990	e6750	7860	1580	4330	2660	1980	1370	6970
26	1080	2380	e2920	e1990	e4600	5210	1460	3740	1970	1720	1350	4960
27	1410	2620	e2820	e1960	e4040	4170	1420	e3590	1720	1530	1550	4240
28	1520	2900	e2540	e1920	e3660	3930	1350	e3200	1470	1460	2480	5460
29	1320	2810	e2470	e1890	---	3300	1280	2810	1290	1270	2070	6220
30	1750	2820	e2410	e1800	---	3260	1220	2580	1190	1210	1680	4780
31	2840	---	e2430	e1720	---	3120	---	2490	---	1250	1780	---
TOTAL	37151	74460	103100	119200	79320	228850	123550	188750	196060	80840	54270	123100
MEAN	1198	2482	3326	3845	2833	7382	4118	6089	6535	2608	1751	4103
MAX	2840	4080	9290	15600	10200	13600	9220	17700	22400	7220	2990	12100
MIN	807	1300	1020	1720	1070	3100	1220	1120	1190	1010	1210	1630
(†)	-276	+479	-33	-185	+526	+950	+97	+110	-70	-257	-321	+196

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Reliant Energy. Records of contents in Youghiogheny River Lake furnished by U.S. Army Corps of Engineers.
e Estimated.

YOUGHIOGHENY RIVER BASIN

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2003, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1501	2103	3548	3935	4548	5907	4924	3702	2325	1571	1461	1389
MAX (WY)	7006	5818	9373	8488	9630	13720	10230	8012	7318	4853	5707	6382
MIN (WY)	1955	1922	1973	1974	1939	1936	1940	1996	1941	1985	1956	1971
MIN	107	209	412	611	716	1539	1637	1012	585	614	309	185
(WY)	1924	1923	1999	1925	1934	1990	1921	1982	1925	1942	1922	1922

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1921 - 2003	
ANNUAL TOTAL	964510		1408651			
ANNUAL MEAN	2642 † +78		3859 † +97		3072	
HIGHEST ANNUAL MEAN					4537 1996	
LOWEST ANNUAL MEAN					1496 1925	
HIGHEST DAILY MEAN	18100	Mar 21	e22400	Jun 4	79000	Mar 18 1936
LOWEST DAILY MEAN	493	Sep 6	807	Oct 3	57	Sep 30 1922
ANNUAL SEVEN-DAY MINIMUM	660	Sep 6	907	Oct 2	64	Sep 24 1922
MAXIMUM PEAK FLOW			27600	Jun 4	a108000	Oct 16 1954
MAXIMUM PEAK STAGE			15.39	Jun 4	b32.50	Oct 16 1954
INSTANTANEOUS LOW FLOW					c57	Sep 29 1922
10 PERCENT EXCEEDS	6150		8760		6810	
50 PERCENT EXCEEDS	1690		2620		1920	
90 PERCENT EXCEEDS	847		1250		700	

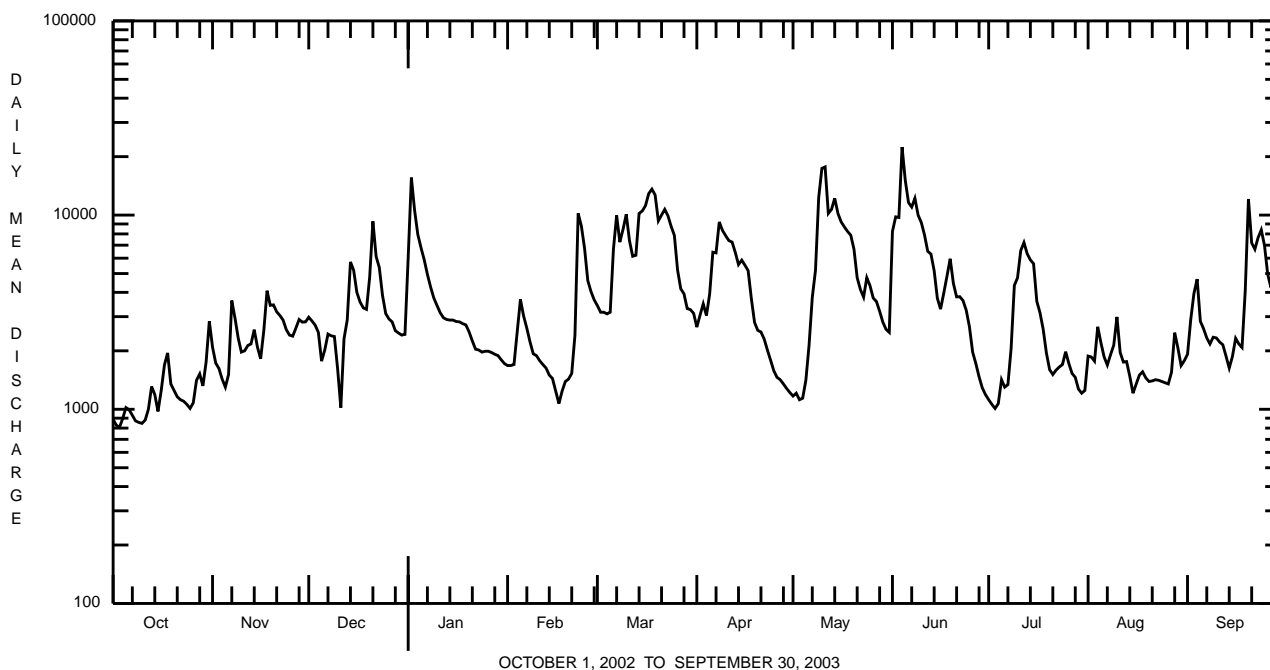
† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Reliant Energy. Records of contents in Youghiogheny River Lake furnished by U.S. Army Corps of Engineers.

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

b From floodmark.

c Minimum observed.

e Estimated.



YOUGHIOGHENY RIVER BASIN

**03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA--Continued
(Pennsylvania Water-Quality Network Station)**

WATER-QUALITY RECORDS

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

REMARKS.--Other data for the Water-Quality Network can be found on pages 242-289.

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.

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)	Specific conductance, μ S/cm 25 degC (00095)	Temperature, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unfl fixed end pt, lab, mg/L as CaCO3 (00417)	
NOV 2002	07...	1115	1028	9813	4000	40	10.0	7.1	245	7.2	86	23.8	6.4	24
JAN 2003	09...	1030	1028	9813	4280	40	15.6	7.6	277	2.1	81	22.1	6.3	26
MAR	12...	1100	1028	9813	6200	40	13.2	7.1	224	2.1	70	19.1	5.5	21
MAY	28...	1115	1028	9813	3010	40	9.8	7.7	264	15.0	81	22.4	6.2	29
JUL	08...	1240	1028	9813	2640	40	8.0	7.4	510	--	180	49.3	14.2	56
SEP	09...	0955	1028	9813	2450	40	8.6	7.2	210	21.0	67	18.8	4.9	27

Date	Fluoride, water, unfltrd mg/L (00951)	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)	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, μ g/L (01105)	Copper, water, unfltrd recover -able, μ g/L (01042)	
NOV 2002	07...	<.2	49.7	118	90	<.020	.94	<.040	.02	.098	1.8	2.9	1900	<10
JAN 2003	09...	<.2	50.2	218	<2	<.020	1.37	<.040	<.01	.017	1.5	1.7	400	<10
MAR	12...	<.2	42.5	160	6	<.020	1.32	<.040	.01	.018	1.5	1.5	400	<10
MAY	28...	<.2	60.2	176	14	<.020	.74	<.040	.02	.020	.97	2.0	400	<10
JUL	08...	<.2	115	456	324	.080	1.39	<.200	.02	.736	2.7	3.7	6700	20
SEP	09...	<.2	45.2	168	24	<.020	.68	<.040	.02	.022	.94	2.4	400	<10

Date	Cyanide amenable to chlorination, wat unfl mg/L (00722)	Iron, water, unfltrd recover -able, μ g/L (01045)	Lead, water, unfltrd recover -able, μ g/L (01051)	Manganese, water, unfltrd recover -able, μ g/L (01055)	Nickel, water, unfltrd recover -able, μ g/L (01067)	Zinc, water, unfltrd recover -able, μ g/L (01092)	Phenolic compounds, water, unfltrd pounds, μ g/L (32730)
NOV 2002	07...	<1.00	5240	4.3	1130	<50	<5
JAN 2003	09...	<1.00	680	<1.0	140	<50	<5
MAR	12...	<1.00	600	<1.0	180	<50	<5
MAY	28...	<1.00	690	<1.0	90	<50	<10
JUL	08...	<1.00	26800	19.9	1410	<50	140
SEP	09...	<1.00	900	<1.0	130	<50	80

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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	9/19/02
Benthic Macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
<u>Ferrissia</u> sp	1
Bivalvia (CLAMS)	
Veneroidea	
Corbiculidae	
<u>Corbicula fluminea</u>	43
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	8
<u>Acentrella</u> sp	1
Caenidae	
<u>Caenis</u> sp	1
Heptageniidae	
<u>Stenonema</u> sp	27
Isonychiidae	
<u>Isonychia</u> sp	1
Tricorythidae	
<u>Tricorythodes</u> sp	28
Trichoptera (CADDISFLIES)	
Glossosomatidae	7
Hydropsychidae	
<u>Cheumatopsyche</u> sp	16
<u>Hydropsyche</u> sp	10
<u>Macrostemum</u> sp	5
Hydroptilidae	
<u>Hydroptila</u> sp	1
Polycentropodidae	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Stenelmis</u> sp	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	7
Total Organisms	160