



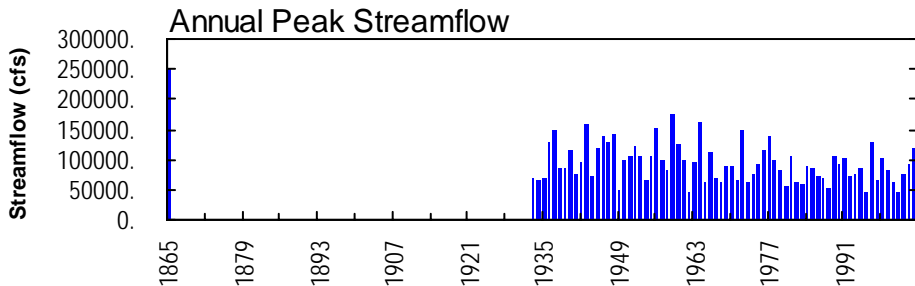
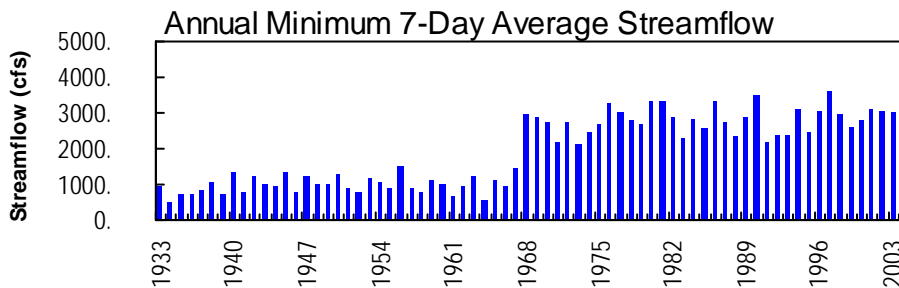
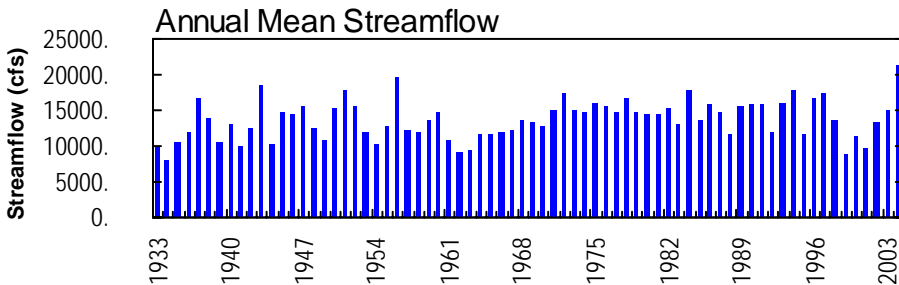
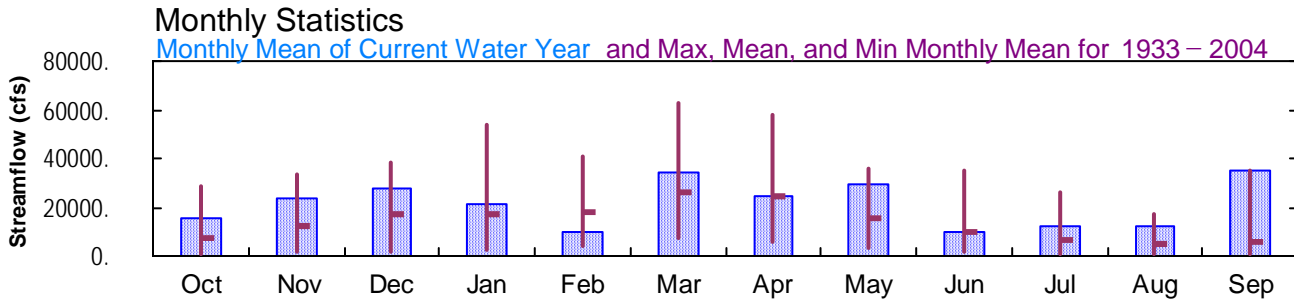
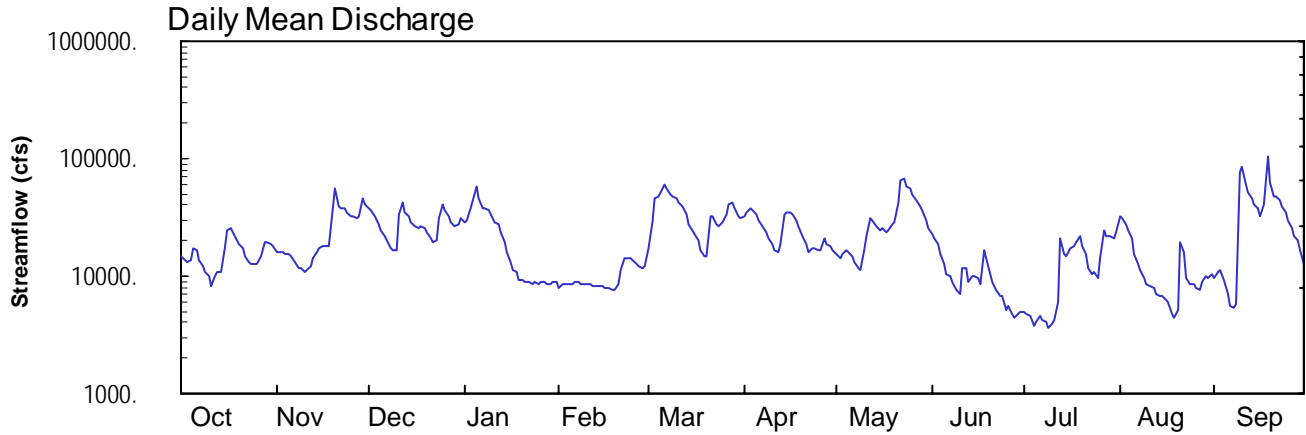
# 2004 Water Year OHIO RIVER BASIN

## 03031500 Allegheny River at Parker, PA

Latitude: 41°06'02"  
Armstrong County

Longitude: 079°40'53"  
Datum: 845.14 feet

Hydrologic Unit Code: 05010006  
Drainage Area: 7671. mi<sup>2</sup>



**OHIO RIVER MAIN STEM**

**03031500 ALLEGHENY RIVER AT PARKER, PA  
(Pennsylvania Water-Quality Network Station)**

**LOCATION.**--Lat 41°06'02", long 79°40'53", Armstrong County, Hydrologic Unit 05010006, on right bank 500 ft downstream from bridge on State Highway 368 at Parker, 1.1 mi downstream from Clarion River, at mile 83.4.

**DRAINAGE AREA.**--7,671 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

**PERIOD OF RECORD.**--October 1932 to current year. Prior to October 1963, published as "*at Parkers Landing.*" Gage height records collected at same site since 1885 are contained in reports of U.S. Weather Bureau.

**GAGE.**--Water-stage recorder. Datum of gage is 845.14 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1932, U.S. Weather Bureau gages at different datums. Oct. 1-28, 1932, nonrecording gage at datum 27.00 ft lower.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1924 by Piney Reservoir, since December 1940 by Tionesta Lake, since November 1949 by Chautauqua Lake (station 03013946), since June 1952 by East Branch Clarion River Lake (station 03027000), since October 1965 by Allegheny Reservoir (station 03012520), since July 1970 by Union City Reservoir (station 03021518), and since January 1974 by Woodcock Creek Lake (station 03022550). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of Mar. 17, 1865 reached a stage of 29.4 ft, present datum, discharge, about 250,000 ft<sup>3</sup>/s, from rating curve extended above 137,000 ft<sup>3</sup>/s.

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	14900	16200	38400	28800	e7900	e17400	32100	15300	22800	4910	32600	9550
2	13400	15800	35700	29700	e8600	30400	34800	14500	21400	4730	30800	10700
3	13100	15800	31800	37700	e8480	45500	37000	15600	18900	4500	27200	11200
4	13600	15200	27600	43700	e8480	48000	36300	16700	15600	3730	24100	9430
5	17300	15100	24500	57000	e8600	50700	32900	15800	12400	4100	20700	6930
6	16500	15000	21700	45900	e8730	60500	29700	14800	10300	4570	15600	5510
7	13800	13400	19800	37100	e8730	55400	26400	13100	10100	4280	12600	5430
8	12200	11700	17600	37100	e8540	49400	23300	11800	8840	4110	11200	5870
9	10900	11600	16900	36100	e8620	48200	20600	11100	7700	3560	9650	77200
10	9830	10700	16700	31100	e8700	46000	18700	16600	7030	3960	8600	85600
11	8260	11300	33800	28800	e8700	42200	16600	21900	11800	4180	8360	59400
12	9900	11900	41700	27200	e8270	38700	15700	30900	11600	5900	7910	50900
13	10800	14300	34800	23200	e8330	33900	18300	30000	8860	20700	7020	46500
14	10900	16200	31700	19500	e8330	27900	33000	26100	9810	15600	6790	41000
15	17100	17300	28900	15800	e8210	24500	34800	24800	10200	14900	6830	37500
16	24700	17700	26600	13100	e7970	22400	34600	25100	9630	17200	6330	32600
17	25400	18200	25900	11300	e7850	19800	33900	23600	8460	18200	5990	40000
18	23200	17800	26900	10800	e7490	16900	30000	24800	16700	19700	4740	105000
19	20600	25900	25200	e9360	e7490	14900	26200	27300	14000	21600	4370	61900
20	18400	55100	23300	e9360	e8520	14900	22200	28800	10500	17600	5090	48400
21	17100	39700	21100	e9000	e11400	32400	18500	41900	8840	15400	19400	47100
22	14600	37100	19400	e8820	e14300	32200	16000	65000	7470	11900	16100	43500
23	13200	37900	19900	e8640	e14400	27600	17300	68100	6710	10500	9640	39100
24	12900	35000	30600	e9000	e14100	26700	17300	57500	6800	10800	8690	35200
25	12700	32800	40600	e8640	e13600	28500	16800	56000	5140	9750	8630	29600
26	12500	32200	36900	e9000	e12700	33900	16900	49700	5510	14100	8020	25900
27	14900	31000	32400	e8820	e12000	40200	20900	44000	4740	24400	7710	22200
28	19600	32800	28700	e8640	e11800	41900	19000	39100	4410	21800	9040	20100
29	19400	46000	26000	e8640	e12000	37400	17700	35900	4780	21600	10100	16800
30	19000	41400	27200	e8820	---	32900	16300	29900	5030	21100	9490	12700
31	17700	---	31500	e8820	---	30800	---	25200	---	23700	10500	---
TOTAL	478390	712100	863800	649460	282840	1072100	733800	920900	306060	383080	373800	1042820
MEAN	15430	23740	27860	20950	9753	34580	24460	29710	10200	12360	12060	34760
MAX	25400	55100	41700	57000	14400	60500	37000	68100	22800	24400	32600	105000
MIN	8260	10700	16700	8640	7490	14900	15700	11100	4410	3560	4370	5430
CFSM	2.01	3.09	3.63	2.73	1.27	4.51	3.19	3.87	1.33	1.61	1.57	4.53
IN.	2.32	3.45	4.19	3.15	1.37	5.20	3.56	4.47	1.48	1.86	1.81	5.06

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2004, BY WATER YEAR (WY)**

MEAN	7034	12380	17150	17510	17730	26400	24800	15770	9996	6282	4761	5446
MAX	28650	33760	38040	53560	40460	63020	58110	36220	35340	26090	16890	34760
(WY)	1991	1986	1978	1937	1976	1936	1940	1943	1989	1972	1994	2004
MIN	802	1655	1332	2111	3788	7746	5651	3610	1508	1069	1034	950
(WY)	1964	1961	1961	1961	1934	1969	1946	1934	1934	1934	1934	1936

e Estimated.

# OHIO RIVER MAIN STEM

## 03031500 ALLEGHENY RIVER AT PARKER, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1933 - 2004	
ANNUAL TOTAL	6650170		7819150			
ANNUAL MEAN	18220		21360		13750	
HIGHEST ANNUAL MEAN					21360	
LOWEST ANNUAL MEAN					8175	
HIGHEST DAILY MEAN	69300	Jul 22	105000	Sep 18	160000	Jan 22 1959
LOWEST DAILY MEAN	3770	Jul 5	3560	Jul 9	454	Jul 28 1934
ANNUAL SEVEN-DAY MINIMUM	4020	Jul 3	4040	Jul 4	508	Jul 25 1934
MAXIMUM PEAK FLOW			120000	Sep 18	<b>ab</b> 175000	
MAXIMUM PEAK STAGE			19.18	Sep 18	<b>c</b> 29.60	Jan 21 1959
INSTANTANEOUS LOW FLOW					409	Jul 30 1934
ANNUAL RUNOFF (CFSM)	2.38		2.79		1.79	
ANNUAL RUNOFF (INCHES)	32.25		37.92		24.35	
10 PERCENT EXCEEDS	36800		40300		31900	
50 PERCENT EXCEEDS	15200		17100		8950	
90 PERCENT EXCEEDS	5780		7640		2250	

**a** About.

**b** From rating curve extended above 137,000 ft<sup>3</sup>/s.

**c** Backwater from ice.

## OHIO RIVER MAIN STEM

03031500 ALLEGHENY RIVER AT PARKER, PA--Continued  
(Pennsylvania Water-Quality Network Station)

## WATER-QUALITY RECORDS

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

REMARKS.--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.

## 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)	Pressure, osmotic water, unfltrd mosm/kg (82550)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfl lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfl µS/cm 25 degC (00095)	Temperature, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recoverable, mg/L (00916)
OCT 2003													
15...	1050	1028	9813	14800	4.0	10.0	7.1	7.3	171	171	12.5	60	17.5
NOV													
20...	0940	1028	9813	58200	<1.0	9.8	7.0	7.1	132	107	9.5	49	13.5
DEC													
17...	1400	1028	9813	25600	<1.0	13.2	6.9	7.1	142	141	3.0	50	14.8
FEB 2004													
26...	1000	1028	9813	E12700	6.0	13.5	6.1	7.1	254	254	.2	80	21.8
MAR													
09...	1345	1028	9813	49600	7.0	12.8	6.8	7.4	124	142	4.5	41	11.6
APR													
21...	1230	1028	9813	18100	6.0	11.5	7.8	7.7	157	162	13.0	51	14.8
MAY													
05...	1330	1028	9813	14400	6.0	10.8	7.9	7.7	162	158	12.0	53	14.9
JUN													
22...	1240	1028	9813	6740	3.0	10.7	8.0	7.5	180	187	22.0	70	19.8
JUL													
27...	1330	1028	9813	25900	1.0	8.0	7.3	7.4	167	158	20.0	55	15.1
AUG													
23...	1310	1028	9813	8750	<1.0	10.3	7.5	7.1	207	210	21.0	69	18.3
SEP													
27...	1235	1028	9813	20400	<1.0	9.0	7.3	7.1	131	128	17.5	46	13.3

Date	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unfl fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	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, sus-pended, 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)
OCT 2003													
15...	3.9	43	15.2	<.2	14.8	126	30	<.020	.32	<.040	.02	.033	.75
NOV													
20...	3.7	25	10.4	<.2	19.2	130	96	<.020	.45	<.040	.05	.099	1.1
DEC													
17...	3.1	31	12.2	<.2	14.7	106	6	<.020	.52	<.040	.02	.021	.51
FEB 2004													
26...	6.3	32	27.0	<.2	44.8	200	<2	.050	.74	<.040	.01	.017	1.1
MAR													
09...	2.9	25	13.0	<.2	11.5	114	8	.030	.66	<.040	.03	.038	.87
APR													
21...	3.4	30	14.4	<.2	18.6	122	10	<.020	.46	<.040	.01	.015	.74
MAY													
05...	3.9	38	14.3	<.2	13.3	128	6	<.020	.42	<.040	.01	.017	.52
JUN													
22...	5.0	39	12.4	<.2	28.0	128	<2	<.020	.33	<.040	<.01	.024	.36
JUL													
27...	4.1	31	11.3	<.2	28.1	144	42	.040	.38	<.040	.01	.055	.82
AUG													
23...	5.6	27	12.1	<.2	47.6	166	6	.040	.25	<.040	.02	.018	.45
SEP													
27...	3.2	33	9.4	<.2	11.7	86	8	<.020	.35	<.040	.02	.037	.59

OHIO RIVER MAIN STEM

03031500 ALLEGHENY RIVER AT PARKER, PA--Continued

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

Date	BOD, water, unfltrd 5 day, 20 degC (00310)	Fecal coli-form, M-FC 0.45uMF col/100 mL (31616)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover-able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	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)
OCT 2003 15...	1.1	980	70	400	<4.0	<.20	<4	<4	210	1210	<1.0	<1.0	40
NOV 20...	2.4	1000	50	1900	<4.0	<.20	<4	4	130	4900	<1.0	4.4	130
DEC 17...	1.4	320	20	200	<4.0	<.20	<4	<4	90	420	<1.0	<1.0	40
FEB 2004 26...	1.0	40	90	400	<4.0	<.20	<4	<4	270	880	<1.0	<1.0	440
MAR 09...	1.8	80	<10	<10	9.2	<.20	10	20	300	1160	1.1	1.5	2
APR 21...	1.0	<20	20	200	<4.0	<.20	<4	<4	50	300	<1.0	<1.0	100
MAY 05...	1.5	20	20	100	<4.0	<.20	<4	<4	100	470	<1.0	<1.0	40
JUN 22...	1.2	140	50	200	<4.0	<.20	<4	<4	140	840	<1.0	<1.0	160
JUL 27...	1.7	1300	150	1100	<4.0	<.20	<4	<4	350	2610	<1.0	2.2	240
AUG 23...	.5	350	50	400	<4.0	<.20	<4	<4	60	840	<1.0	<1.0	460
SEP 27...	1.4	80	20	200	<4.0	<.20	<4	<4	50	870	<1.0	<1.0	40

Date	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)	Zinc, water, unfltrd recover-able, µg/L (01092)	Phen-olic com-pounds, water, unfltrd µg/L (32730)
OCT 2003 15...	160	<4	<4	<5	7	<5
NOV 20...	610	<4	10	<5	30	<5
DEC 17...	70	<4	<4	<5	<5	<5
FEB 2004 26...	440	9	9	20	20	<5
MAR 09...	20	<4	<4	30	50	<5
APR 21...	120	<4	<4	<5	6	<5
MAY 05...	70	<4	<4	6	<5	<5
JUN 22...	240	<4	5	<5	6	<5
JUL 27...	430	5	8	5	20	<5
AUG 23...	500	7	9	<5	10	<5
SEP 27...	120	<4	<4	<5	<5	<5

OHIO RIVER MAIN STEM

03031500 ALLEGHENY RIVER AT PARKER, 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 200 animal (approximate) subsamples.

Date	12/10/02
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	4
Hydrobiidae	10
Amnicola	28
Lymnaeidae	
Fossaria	1
Planorbidae	
Gyraulus	1
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Pisidium	3
Sphaerium	3
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	3
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	4
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	10
Insecta	
Ephemeroptera (MAYFLIES)	
Caenidae	
Caenis	1
Ephemerellidae	
Ephemerella	3
Serratella	1
Heptageniidae	3
Stenonema	3
Isonychiidae	
Isonychia	2
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
Argia	10
Plecoptera (STONEFLIES)	
Taeniopterygidae	
Taenionema	1

OHIO RIVER MAIN STEM

03031500 ALLEGHENY RIVER AT PARKER, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES--Continued

Date	12/10/02
Benthic Macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Brachycentridae	5
Hydropsychidae	
<i>Cheumatopsyche</i>	5
Hydroptilidae	
<i>Hydroptila</i>	3
Polycentropodidae	
<i>Neureclipsis</i>	4
Coleoptera (BEETLES)	
Elmidae (RIFFLER BEETLES)	
<i>Optioservus</i>	10
<i>Stenelmis</i>	10
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	79
Total Organisms	210
Total Taxa	27