



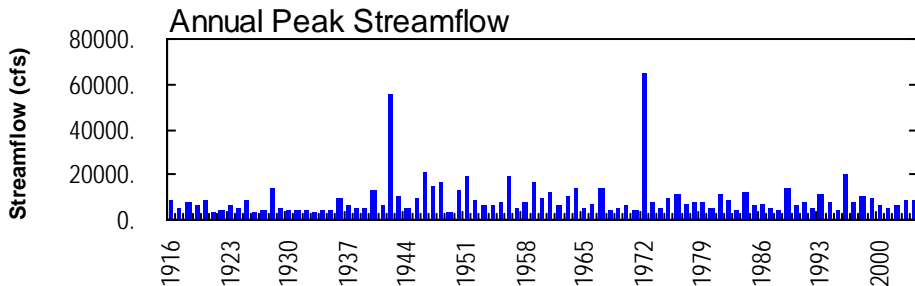
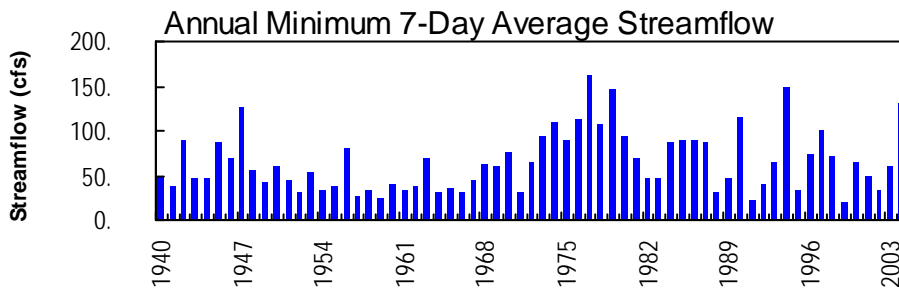
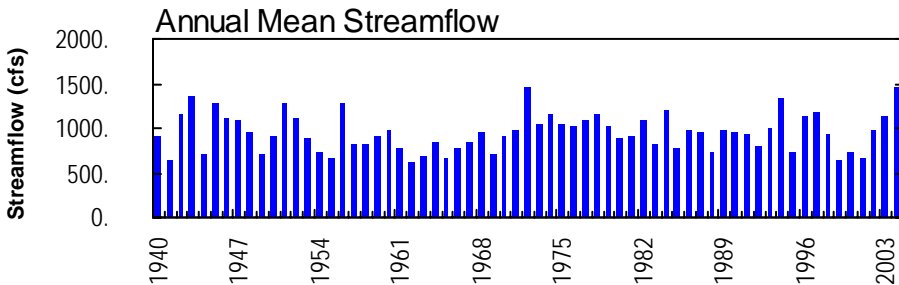
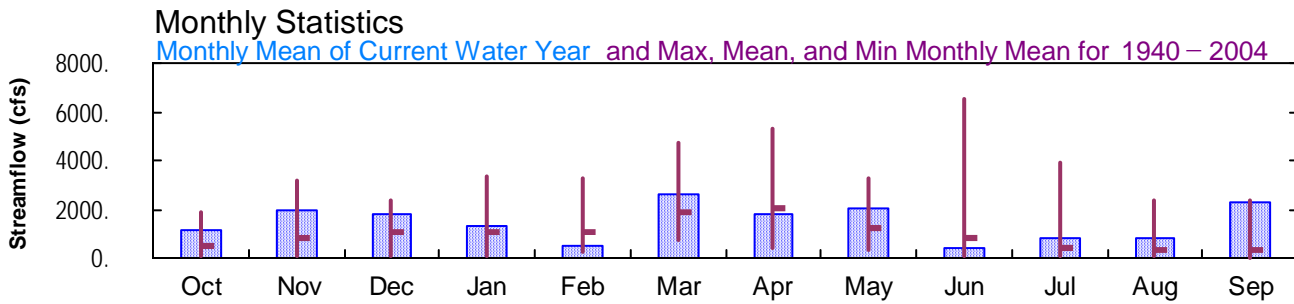
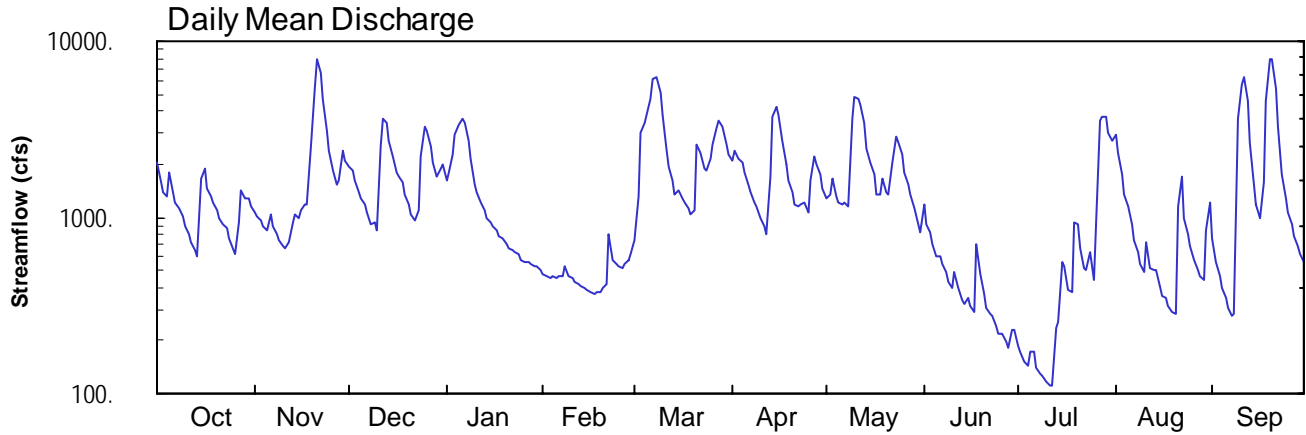
# 2004 Water Year OHIO RIVER BASIN

## 03010500 Allegheny River at Eldred, PA

Latitude: 41° 57' 48"  
Mckean County

Longitude: 078° 23' 11"  
Datum: 1416.53 feet

Hydrologic Unit Code: 05010001  
Drainage Area: 550. mi<sup>2</sup>



**OHIO RIVER MAIN STEM**

**03010500 ALLEGHENY RIVER AT ELDRED, PA  
(Pennsylvania Water-Quality Network Station)**

**LOCATION.**--Lat 41°57'48", long 78°23'11", McKean County, Hydrologic Unit 05010001, on right bank at site of former highway bridge, 600 ft upstream from bridge on State Highway 346, 1,000 ft upstream from Knapp Creek, 0.5 mi north of Eldred, at mile 267.8.

**DRAINAGE AREA.**--550 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

**PERIOD OF RECORD.**--July 1939 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 1,416.53 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 5,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Nov. 21	1300	8,280	16.07	Sept. 11	0030	6,590	14.85
Mar. 7	2200	6,510	14.78	Sept. 19	2015	*8,800	*16.70

**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	2050	1070	1940	1640	481	743	2100	1280	1190	185	2970	770
2	1600	1010	1840	1780	459	1320	2400	1360	908	171	2340	557
3	1370	956	1600	2300	453	3030	2170	1660	819	153	1740	461
4	1330	879	1390	2930	461	3450	2060	1320	696	143	1340	399
5	1800	847	1270	3370	452	3860	1810	1220	610	172	1170	352
6	1380	1040	1180	3660	459	4650	1540	1190	608	172	924	310
7	1230	896	1070	3410	e468	6090	1370	1230	549	142	749	275
8	1120	804	913	2750	e528	6190	1230	1150	485	130	638	282
9	1000	736	949	2170	e468	5050	1140	3610	430	125	546	3630
10	897	689	850	1550	e455	3770	994	4790	400	117	488	5580
11	805	675	2520	e1380	e428	2460	883	4740	486	112	726	6200
12	714	716	3630	e1220	e419	1950	802	4300	402	112	512	4630
13	655	943	3480	e1100	e411	1620	1690	3470	341	235	504	2680
14	608	1050	2730	e990	e402	1360	3710	2480	325	258	505	1550
15	1670	985	2200	e925	e384	1400	4240	2030	351	552	407	1170
16	1900	1100	1790	e880	381	1290	3840	1750	317	524	360	977
17	1450	1180	1710	e848	366	1200	2740	1360	292	385	352	1580
18	1300	1190	1570	e791	381	1120	2000	1360	700	373	312	4620
19	1210	2520	1330	e752	376	1050	1600	1680	476	945	292	7990
20	1090	5410	1180	e701	398	1110	1390	1390	363	918	282	7900
21	980	7920	1040	e669	e420	2570	1190	1340	310	666	1160	5410
22	921	6640	954	e656	e798	2320	1170	2050	280	516	1690	3250
23	857	4720	1080	e630	e573	1900	1190	2860	275	505	980	1760
24	758	3130	2210	e611	e546	1830	1230	2660	244	641	804	1300
25	676	2400	3250	e579	e528	2140	1060	2250	219	441	681	1060
26	625	1850	3080	e559	e519	2570	1620	1790	218	961	576	905
27	931	1550	2530	e559	e546	3200	2200	1530	198	3570	505	772
28	1430	1620	2040	e540	574	3490	2020	1330	181	3750	470	682
29	1280	2420	1700	e534	612	3260	1750	1140	230	3730	438	618
30	1280	2080	1880	530	---	2620	1480	909	232	3020	845	552
31	1150	---	2010	502	---	2250	---	829	---	2720	1230	---
TOTAL	36067	59026	56916	41516	13746	80863	54619	62058	13135	26444	26536	68222
MEAN	1163	1968	1836	1339	474	2608	1821	2002	438	853	856	2274
MAX	2050	7920	3630	3660	798	6190	4240	4790	1190	3750	2970	7990
MIN	608	675	850	502	366	743	802	829	181	112	282	275
CFSM	2.12	3.58	3.34	2.43	0.86	4.74	3.31	3.64	0.80	1.55	1.56	4.13
IN.	2.44	3.99	3.85	2.81	0.93	5.47	3.69	4.20	0.89	1.79	1.79	4.61

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)**

MEAN	454	829	1076	1034	1092	1881	2041	1192	787	431	287	354
MAX	1894	3175	2390	3359	3250	4697	5314	3273	6490	3893	2336	2340
(WY)	1991	1951	1973	1952	1976	1945	1940	1943	1972	1942	2003	1977
MIN	41.6	62.0	55.1	87.3	213	728	385	292	109	57.8	43.4	34.6
(WY)	1965	1965	1961	1961	1980	1993	1946	1985	1991	1966	1957	1959

e Estimated.

**OHIO RIVER MAIN STEM**

**03010500 ALLEGHENY RIVER AT ELDRED, PA--Continued**

<b>SUMMARY STATISTICS</b>	<b>FOR 2003 CALENDAR YEAR</b>		<b>FOR 2004 WATER YEAR</b>		<b>WATER YEARS 1940 - 2004</b>	
ANNUAL TOTAL	515581		539148			
ANNUAL MEAN	1413		1473		954	
HIGHEST ANNUAL MEAN					1475	1972
LOWEST ANNUAL MEAN					631	1962
HIGHEST DAILY MEAN	8400	Mar 23	7990	Sep 19	55700	Jun 23 1972
LOWEST DAILY MEAN	140	Jul 17	112	Jul 11,12	16	Sep 6 1999
ANNUAL SEVEN-DAY MINIMUM	190	Jul 11	130	Jul 6	20	Sep 1 1999
MAXIMUM PEAK FLOW			8800	Sep 19	<b>a</b> 65400	Jun 23 1972
MAXIMUM PEAK STAGE			16.70	Sep 19	<b>b</b> 29.05	Jun 23 1972
INSTANTANEOUS LOW FLOW			108	Jul 11,12	15	Sep 6 1999
ANNUAL RUNOFF (CFSM)	2.57		2.68		1.73	
ANNUAL RUNOFF (INCHES)	34.87		36.47		23.56	
10 PERCENT EXCEEDS	3300		3290		2280	
50 PERCENT EXCEEDS	913		1080		528	
90 PERCENT EXCEEDS	326		352		86	

**a** From rating curve extended above 21,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 27.6 ft.

**b** From floodmark.

OHIO RIVER MAIN STEM

03010500 ALLEGHENY RIVER AT ELDRED, PA--Continued  
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

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)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, unfltrd recover-able, mg/L (00916)	Magnesium, water, unfltrd recover-able, mg/L (00927)
OCT 2003	14...	1028	9813	593	10.2	7.4	6.8	79	77	11.3	26	7.0	2.0
DEC 18...	1300	1028	9813	1560	12.3	6.8	7.0	75	76	2.2	24	6.4	1.8
APR 2004	27...	1315	1028	9813	2150	10.6	6.9	7.0	62	62	9.4	21	5.7
JUN 23...	1230	1028	9813	280	9.2	6.8	7.1	90	88	20.2	29	8.0	2.2
AUG 12...	1045	1028	9813	507	8.5	7.0	7.2	82	81	18.2	28	7.8	2.0

Date	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)	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, as N, mg/L (00610)	Nitrate, water, unfltrd, as N, mg/L (00620)	Nitrite, water, unfltrd, as N, mg/L (00615)	Ortho-phosphate, water, unfltrd, as P, mg/L (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, µg/L (01105)	Copper, water, unfltrd recover-able, µg/L (01042)	
OCT 2003	14...	23	8.2	82	34	<.020	.35	<.040	.01	.017	.61	1.6	<200	<10
DEC 18...	13	8.7	66	8	<.020	.56	<.040	.02	.021	.46	1.4	300	<10	
APR 2004	27...	12	8.1	16	34	<.020	.44	<.040	.04	.043	.72	2.2	1200	<10
JUN 23...	24	8.0	92	2	.030	.17	<.040	.01	.026	.28	2.1	<200	<10	
AUG 12...	21	7.6	34	10	.040	.31	<.040	.02	.025	.52	2.2	400	<10	

Date	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, unfltrd recover-able, µg/L (01051)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, unfltrd recover-able, µg/L (01092)	
OCT 2003	14...	470	<1.0	60	<50	30
DEC 18...	540	<1.0	60	<50	40	
APR 2004	27...	1560	1.5	70	<50	<10
JUN 23...	770	<1.0	90	<50	<10	
AUG 12...	880	1.7	70	<50	20	

## OHIO RIVER MAIN STEM

## 03010500 ALLEGHENY RIVER AT ELDRED, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES

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

Date	10/14/03
Benthic Macroinvertebrate	Count
Nematoda (NEMATODES)	3
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoploneuridae	
Tetrastemmatidae	
<i>Prostoma</i>	4
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancyliidae	
<i>Ferrissia</i>	2
Lymnaeidae	
<i>Pseudosuccinea columella</i>	1
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<i>Sphaerium</i>	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbricina	3
Lumbriculida	
Lumbriculidae	2
Tubificida	
Naididae	15
Tubificidae	18
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	12
Crustacea	
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
<i>Caecidotea</i>	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetiscidae	
<i>Baetisca</i>	8
Caenidae	
<i>Caenis</i>	2
Ephemerellidae	
<i>Eurylophella</i>	4
Heptageniidae	
<i>Stenonema</i>	4
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	1
Plecoptera (STONEFLIES)	
Taeniopterygidae	
<i>Taeniopteryx</i>	41
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<i>Nigronia</i>	1

## OHIO RIVER MAIN STEM

03010500 ALLEGHENY RIVER AT ELDRED, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES--Continued

Date	10/14/03
Benthic Macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	9
Hydroptilidae	
<i>Hydroptila</i>	1
Leptoceridae	
<i>Oecetis</i>	1
Limnephilidae	
<i>Hydatophylax</i>	1
Polycentropodidae	
<i>Neureclipsis</i>	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Dubiraphia</i>	8
Hydrophilidae	
<i>Berosus</i>	1
Diptera (TRUE FLIES)	
Ceratopogonidae (BITING MIDGES)	
<i>Probezzia</i>	1
Chironomidae (MIDGES)	18
Empididae (DANCE FLIES)	
<i>Hemerodromia</i>	1
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	1
Total Organisms	166
Total Taxa	29