

## 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)
Mar. 23	0300	*8,610	*16.35	Aug. 13	0200	6,210	14.11

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	113	185	e489	1360	e294	e853	1570	374	1770	321	2300	412
2	94	214	e433	e1960	e289	e796	1910	503	1400	285	3690	1870
3	88	218	e405	e1500	e294	e753	1910	582	1220	259	4080	1940
4	82	211	e386	e1280	e365	e696	1870	457	1190	237	4360	2500
5	79	206	e370	e1140	e623	e672	3620	426	1310	230	4690	2200
6	82	239	e355	e1040	e566	e634	4390	488	1160	223	4420	1630
7	80	396	e336	e947	e523	e615	4330	488	993	206	3300	1260
8	71	353	e336	e841	e487	e601	3610	479	994	230	2550	1040
9	63	304	e325	e771	e458	e655	2730	470	1200	205	2350	878
10	59	284	e331	e701	e430	e672	2290	450	1080	224	4260	741
11	57	375	e336	e666	e389	e696	2030	456	970	291	5010	634
12	57	516	e467	e638	e359	e706	1780	547	1170	261	5710	549
13	59	412	e723	e589	e341	e715	1550	624	2020	189	6010	487
14	61	376	e1280	e554	e341	e720	1340	630	1990	160	5070	474
15	62	339	e1900	e519	e329	e796	1180	564	1740	143	3310	589
16	69	331	e1150	e477	e319	1620	1060	601	1440	146	1920	968
17	101	999	e937	e463	e301	3250	958	710	1160	140	1550	631
18	136	1720	e877	e427	e307	4340	858	628	1010	355	1170	477
19	133	1130	e930	e392	e301	5380	777	582	918	493	929	457
20	260	941	e1750	e364	e294	6450	713	546	779	245	764	773
21	221	825	e2410	e343	e288	7030	680	772	909	789	648	635
22	149	1010	e1970	e343	e288	8150	702	783	1100	4190	566	532
23	123	1200	e1730	e329	e807	8400	656	652	857	4440	517	1330
24	108	1010	1510	e308	e1330	7090	583	698	749	4250	440	1410
25	100	944	1290	e308	e1170	5560	530	809	658	4510	390	1210
26	197	873	e1110	e301	e1050	4550	501	688	575	4040	373	1370
27	490	789	965	e308	e958	3790	486	648	504	2620	450	1100
28	299	711	837	e315	e887	2860	446	642	444	3080	422	2140
29	222	644	e739	e315	---	2270	411	618	391	2920	334	3070
30	192	e548	698	e307	---	2160	388	566	354	2020	449	2830
31	186	---	717	e302	---	1800	---	668	---	1470	392	---
TOTAL	4093	18303	28092	20108	14388	85280	45859	18149	32055	39172	72424	36137
MEAN	132	610	906	649	514	2751	1529	585	1068	1264	2336	1205
MAX	490	1720	2410	1960	1330	8400	4390	809	2020	4510	6010	3070
MIN	57	185	325	301	288	601	388	374	354	140	334	412
CFSM	0.24	1.11	1.65	1.18	0.93	5.00	2.78	1.06	1.94	2.30	4.25	2.19
IN.	0.28	1.24	1.90	1.36	0.97	5.77	3.10	1.23	2.17	2.65	4.90	2.44

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	443	811	1064	1030	1102	1870	2044	1180	793	425	278	324
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.

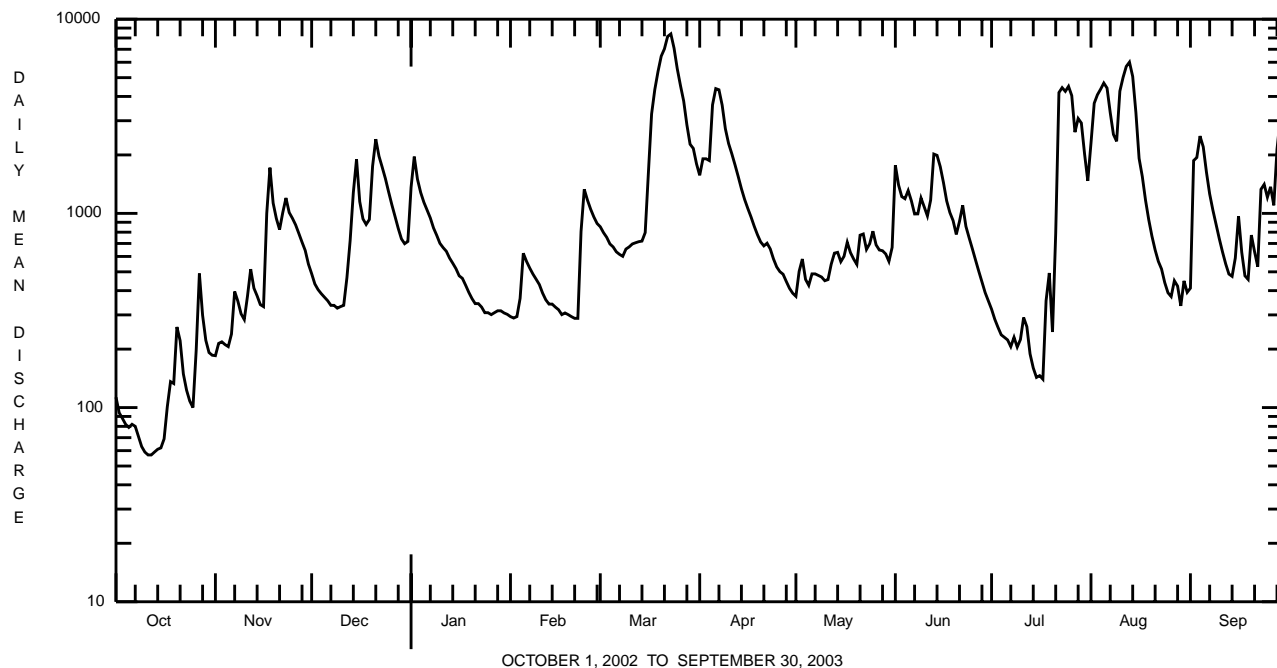
## OHIO RIVER MAIN STEM

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	345756		414060			
ANNUAL MEAN	947		1134		945	
HIGHEST ANNUAL MEAN					1475	1972
LOWEST ANNUAL MEAN					631	1962
HIGHEST DAILY MEAN	5790	May 16	8400	Mar 23	55700	Jun 23 1972
LOWEST DAILY MEAN	27	Sep 14	57	Oct 11,12	16	Sep 6 1999
ANNUAL SEVEN-DAY MINIMUM	34	Sep 8	60	Oct 9	20	Sep 1 1999
MAXIMUM PEAK FLOW			8610	Mar 23	<b>a</b> 65400	Jun 23 1972
MAXIMUM PEAK STAGE			16.35	Mar 23	<b>b</b> 29.05	Jun 23 1972
INSTANTANEOUS LOW FLOW			56	Oct 11-13	15	Sep 6 1999
ANNUAL RUNOFF (CFSM)	1.72		2.06		1.72	
ANNUAL RUNOFF (INCHES)	23.39		28.01		23.35	
10 PERCENT EXCEEDS	2260		2840		2260	
50 PERCENT EXCEEDS	717		648		520	
90 PERCENT EXCEEDS	76		213		85	

**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.

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, $\mu$ 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 19...	1400	1028	9813	1090	40	12.7	7.6	77	3.9	26	7.0	1.9	14
MAY 2003 13...	1230	1028	9813	629	40	9.6	7.3	92	12.6	30	8.4	2.3	15
JUL 28...	1215	1028	9813	3180	40	8.7	6.9	60	16.3	22	6.0	1.7	13
SEP 16...	1530	1028	9813	1020	40	8.3	7.2	80	17.7	28	7.8	2.2	19

Date	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)	Orthophosphate, 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, $\mu$ g/L (01105)	Copper, water, unfltrd recover -able, $\mu$ g/L (01042)	Iron, water, unfltrd recover -able, $\mu$ g/L (01045)
NOV 2002 19...	10.6	70	14	<.020	.48	<.040	.02	.019	.79	2.7	300	<10	570
MAY 2003 13...	8.8	46	8	<.020	.23	<.040	.03	.025	.60	2.2	300	<10	660
JUL 28...	7.3	6	46	<.020	.40	<.040	.07	.080	.70	4.6	1800	<10	2250
SEP 16...	7.5	80	28	<.020	.32	<.040	.06	.056	.70	3.4	1700	<10	2030

Date	Lead, water, unfltrd recover -able, $\mu$ g/L (01051)	Manganese, water, unfltrd recover -able, $\mu$ g/L (01055)	Nickel, water, unfltrd recover -able, $\mu$ g/L (01067)	Zinc, water, unfltrd recover -able, $\mu$ g/L (01092)
NOV 2002 19...	<1.0	80	<50	<10
MAY 2003 13...	<1.0	70	<50	<10
JUL 28...	1.9	110	<50	<10
SEP 16...	2.5	130	<50	30

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

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	8/15/02
Benthic Macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
<u>Ferrissia</u> sp	1
Hydrobiidae	
<u>Amnicola</u> sp	12
Lymnaeidae	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	34
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	
Lebertiidae	
<u>Lebertia</u> sp	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetiscidae	
<u>Baetisca</u> sp	4
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	3
Hydroptilidae	
<u>Hydroptila</u> sp	9
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Optioservus</u> sp	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	37
Empididae (DANCE FLIES)	
<u>Hemerodromia</u> sp	5
Total Organisms	108