OHIO RIVER MAIN STEM

03016000 ALLEGHENY RIVER AT WEST HICKORY, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°34'15", long 79°24'29", Forest County, Hydrologic Unit 05010003, on right bank at downstream side of bridge on State Highway 127 at West Hickory, 0.6 mi upstream from Siggins Run, 0.8 mi downstream from East Hickory Creek, at mile 158.9.

DRAINAGE AREA.--3,660 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR PA-96-3: 1995(M).

GAGE.--Water-stage recorder. Datum of gage is 1,059.90 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since November 1949 by Chautauqua Lake (station 03013946), since October 1965 by Allegheny Reservoir (station 03012520) 39 mi upstream. 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	1790	1720	5930	11100	e2470	e6040	12500	2420	5170	1930	17600	2840
2	1640	2650	5910	12100	e2660	e5600	11000	2630	6870	1890	15600	5770
3	1610	2860	5080	11400	e3250	e5440	8930	3210	7820	1870	13400	7960
4	1580	2990	e4560	13300	e4670	e5360	8880	3010	7480	1870	13700	5270
5	1760	3070	e4100	13400	e6430	e5250	21400	2760	7120	1970	15600	4040
6	1690	4340	e3810	12600	e8220	e5250	18000	3000	5830	2030	12500	3590
7	1910	4870	e3690	11800	e7600	e5110	18800	4100	5860	2030	12800	3990
8	2200	5280	e3520	11300	e6940	e5250	14600	3730	5900	1690	11000	4940
9	2160	5000	e3400	10600	e6470	e5700	21400	3920	7030	1640	10100	5720
10	2130	4780	e3230	8620	e5930	e6580	21300	4360	6730	1860	11000	5580
11	2470	5790	e3380	7210	e5380	e5840	21100	4180	6770	2420	14400	5390
12	2630	6430	e4150	e6190	e5030	e5510	22500	4310	11200	2450	16900	5070
13	2160	6030	e5940	e5050	e4680	e4880	21100	5890	21200	2430	20300	2960
14	2090	5320	e8700	e4180	e4370	e4260	17700	9290	16900	2290	19600	4130
15	2070	4280	e12700	e3540	e4180	e3930	13200	11800	16200	2190	17700	5000
16	2190	4110	e11300	e3030	e3870	e4880	8850	9380	13800	2350	10300	4750
17	2320	4590	e10100	e2520	e3630	e9390	6960	12100	12500	2240	8670	5340
18	1920	6250	e9440	e2470	e3520	e13600	5400	11300	11600	2760	8100	6180
19	1790	7370	e9130	e2390	e3280	e16500	5210	9810	9520	3030	4850	4800
20	2190	8200	e11300	e2390	e3130	e14000	5040	7910	7530	2960	3530	4970
21	2530	8040	15200	e2270	e2860	e16700	5290	7350	5830	8100	2680	5050
22	2250	7830	13800	e2240	e2820	e21100	6110	7050	5670	26500	2470	3620
23	1950	8390	14000	e2350	e3840	e24300	5840	6780	5330	16200	2460	6090
24	1760	8400	13900	e2350	e4570	26300	5390	6650	3830	19800	2360	8040
25	1640	8390	13300	e2390	e5450	25600	4280	6750	3580	23500	2220	7980
26	1880	8240	12300	e2390	e6180	23200	4010	6360	2820	22600	2250	7300
27	1890	7680	11300	e2390	e6620	23400	3800	5300	2730	22400	2420	5860
28	1850	6060	9550	e2470	e6470	22400	3460	4600	2640	27600	2610	6570
29	1820	5780	8410	e2470	---	20100	3290	3410	2300	24600	2490	6600
30	1720	5730	7330	e2430	---	19500	2520	3200	2250	23000	2490	6700
31	1720	---	7270	e2390	---	16900	---	3480	---	21700	2590	---
TOTAL	61310	170470	255730	181330	134520	377870	327860	180040	230010	279900	284690	162100
MEAN	1978	5682	8249	5849	4804	12190	10930	5808	7667	9029	9184	5403
MAX	2630	8400	15200	13400	8220	26300	22500	12100	21200	27600	20300	8040
MIN	1580	1720	3230	2240	2470	3930	2520	2420	2250	1640	2220	2840
CFSM	0.54	1.55	2.25	1.60	1.31	3.33	2.99	1.59	2.09	2.47	2.51	1.48
IN.	0.62	1.73	2.60	1.84	1.37	3.84	3.33	1.83	2.34	2.84	2.89	1.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2003, BY WATER YEAR (WY)

MEAN	4028	6429	8536	8439	8160	11870	11750	7552	4840	3114	2392	2735
MAX	15890	17070	17950	21260	18970	29740	25970	20020	14730	15430	10160	12160
(WY)	1991	1993	1978	1952	1990	1945	1947	1943	1989	1972	1977	1977
MIN	324	659	581	844	1725	3378	2255	1333	1430	597	490	449
(WY)	1964	1961	1961	1961	1963	1969	1946	1985	1949	1955	1954	1955

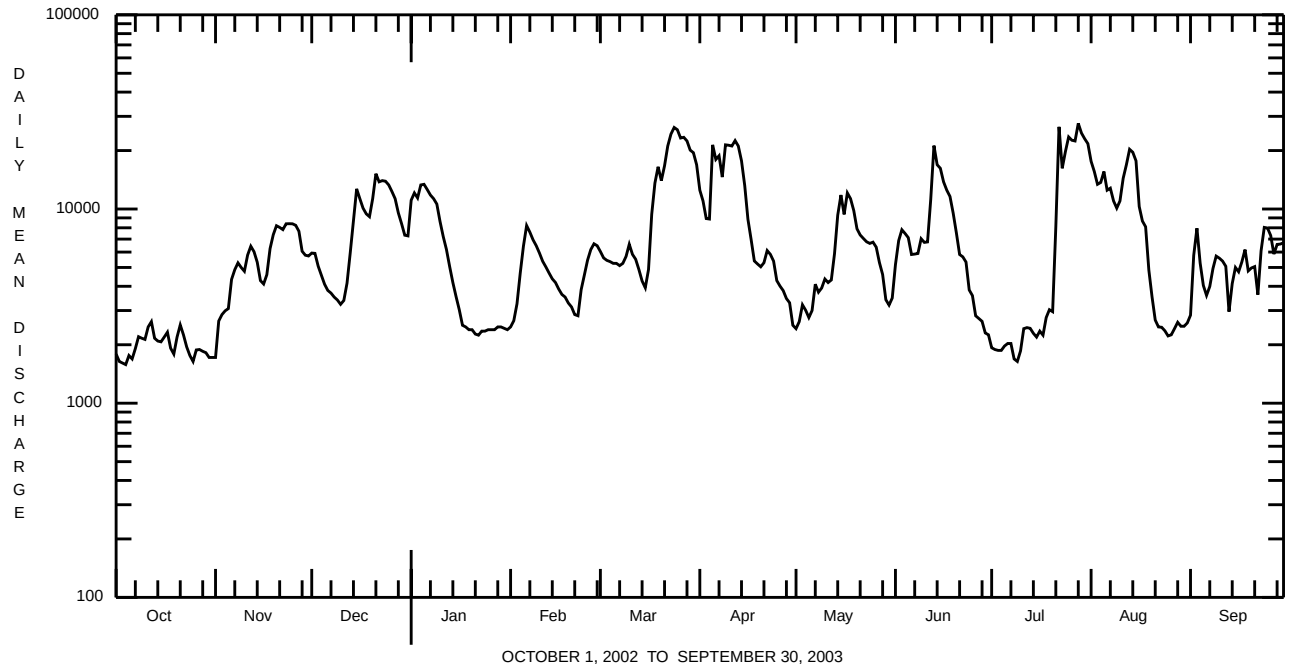
e Estimated.

OHIO RIVER MAIN STEM

03016000 ALLEGHENY RIVER AT WEST HICKORY, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1942 - 2003	
ANNUAL TOTAL	2512900		2645830			
ANNUAL MEAN	6885		7249		6645	
HIGHEST ANNUAL MEAN					9547	1956
LOWEST ANNUAL MEAN					3963	1999
HIGHEST DAILY MEAN	26600	May 20	27600	Jul 28	90800	Mar 8 1956
LOWEST DAILY MEAN	1580	Oct 4	1580	Oct 4	272	Oct 15 1963
ANNUAL SEVEN-DAY MINIMUM	1710	Oct 1	1710	Oct 1	276	Oct 14 1963
MAXIMUM PEAK FLOW			37600	Jul 22	**a**101000	Mar 8 1956
MAXIMUM PEAK STAGE			**b**10.50	Jul 22	**c**17.20	Mar 8 1956
ANNUAL RUNOFF (CFSM)	1.88		1.98		1.82	
ANNUAL RUNOFF (INCHES)	25.54		26.89		24.67	
10 PERCENT EXCEEDS	15500		16600		15300	
50 PERCENT EXCEEDS	5170		5340		4300	
90 PERCENT EXCEEDS	2040		2190		1120	

a From rating curve extended above 99,300 ft^3/s.
b Maximum gage height, 10.85 ft., Feb. 5 (backwater from ice).
c Maximum gage height, 17.83 ft., Jan. 25, 1964 (backwater from ice).



OCTOBER 1, 2002 TO SEPTEMBER 30, 2003

03016000 ALLEGHENY RIVER AT WEST HICKORY, 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)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)
NOV 2002													
26...	1130	1028	9813	8040	40	12.6	7.6	167	5.5	60	18.2	3.5	42
MAR 2003													
26...	1115	1028	9813	23200	40	12.8	7.4	128	4.3	38	10.9	2.5	24
MAY													
20...	1300	1028	9813	7680	40	11.3	7.9	146	13.2	43	12.0	3.1	34
JUL													
29...	1145	1028	9813	24400	40	9.2	7.1	120	16.8	40	11.8	2.7	34
SEP													
23...	1100	1028	9813	6020	40	8.5	7.5	142	18.2	47	14.2	2.9	36

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 recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, unfltrd recoverable, µg/L (01045)
NOV 2002													
26...	11.7	134	<2	<.020	.40	<.040	.03	.030	.50	2.9	300	<10	470
MAR 2003													
26...	9.2	84	16	<.020	.64	<.040	.03	.034	.84	2.9	700	<10	1060
MAY													
20...	9.5	68	<2	<.020	.38	<.040	.02	.023	.63	2.9	200	<10	370
JUL													
29...	8.5	114	20	<.020	.40	<.040	.05	.058	.65	3.3	1300	<10	1910
SEP													
23...	8.5	124	16	<.020	.32	<.040	.02	.035	.53	3.4	400	<10	660

Date	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, unfltrd recoverable, µg/L (01092)
NOV 2002				
26...	<1.0	70	<50	<10
MAR 2003				
26...	<1.0	80	<50	30
MAY				
20...	2.3	40	<50	50
JUL				
29...	1.7	130	<50	20
SEP				
23...	<1.0	100	<50	60

OHIO RIVER MAIN STEM

03016000 ALLEGHENY RIVER AT WEST HICKORY, 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	8/21/02
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Dugesiidae	
Dugesia sp	6
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia sp	5
Hydrobiidae	
Amnicola sp	33
Physidae	
Aplexa sp	3
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium sp	5
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	22
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis sp	6
Heptageniidae	
Stenonema sp	7
Isonychiidae	
Isonychia sp	13
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria sp	3
Trichoptera (CADDISFLIES)	
Brachycentridae	
Brachycentrus sp	69
Hydropsychidae	
Cheumatopsyche sp	5
Hydropsyche sp	3
Macrostemum sp	1
Hydroptilidae	
Hydroptila sp	3
Leptoceridae	
Ceraclea sp	1
Uenoidae	
Neophylax sp	1
Lepidoptera (MOTHS AND BUTTERFLIES)	
Pyralidae	
Petrophila sp	1

03016000 ALLEGHENY RIVER AT WEST HICKORY, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

Date	8/21/02
Benthic Macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus sp	19
Stenelmis sp	8
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	22
Tipulidae (CRANE FLIES)	
Antocha sp	1
Total Organisms	237