

OHIO RIVER MAIN STEM

03049500 ALLEGHENY RIVER AT NATRONA, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°36'55", long 79°43'07", Allegheny County, Hydrologic Unit 05010009, on right bank 520 ft upstream from dam at lock 4 at Natrona, 5.8 mi downstream from Kiskiminetas River, at mile 24.3.

DRAINAGE AREA.--11,410 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1435: 1939.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 736.36 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Apr. 14, 1940, nonrecording gage and Apr. 15, 1940 to Oct. 22, 1990, water-stage recorder at same site at datum 0.75 ft higher.

REMARKS.--Records good except those for estimated daily discharges and those below 2,000 ft³/s, which are poor. Sharp rises and drops in discharge during periods of low flow may be caused by hydroelectric power production. Flow regulated since 1924 by Piney Reservoir, since May 1940 by Crooked Creek Lake, since December 1940 by Tionesta Lake, since June 1941 by Mahoning Creek Lake, since June 1942 by Loyalhanna Lake, since November 1949 by Chautauqua Lake (station 03013946), since November 1951 by Conemaugh River Lake, 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), 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. 18, 1936 reached a stage of 32.06 ft, discharge, 365,000 ft³/s, determined by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3430	5820	18400	12000	41900	16900	51100	e30000	20800	10600	10500	2950
2	4230	5590	21200	11200	53700	15600	46200	31300	20900	8840	7660	3100
3	3120	5670	19100	9920	51300	15600	42200	35100	19600	7510	6480	3150
4	3050	5910	16500	10400	49600	19800	43600	36200	16100	6550	4650	4000
5	2860	6000	14800	9670	46300	23400	41100	35500	16000	4700	4190	3310
6	3100	6090	13000	7610	40100	20400	36700	32600	23500	5270	3510	3290
7	2740	5610	12300	7950	36400	19100	32800	30000	42800	4470	3240	3130
8	3240	5180	11100	7770	33800	17800	28800	24300	37700	5160	3820	3050
9	3120	4910	9850	7850	31700	17200	26700	22700	39600	5070	3090	3340
10	2990	5460	9440	8220	27800	16400	25800	25500	38200	5140	4150	3530
11	2890	4400	9130	8300	28700	15600	25700	29500	34300	5220	3460	4100
12	3710	4130	7330	9400	33400	15900	25600	30700	29100	4660	3760	3160
13	2920	4680	7510	10900	31500	15300	24000	64800	25100	4420	4540	3130
14	3040	4040	7530	12200	29100	15100	26200	88600	24100	3740	3980	3090
15	3210	3620	8890	e11200	26000	12800	47300	79100	33800	3430	3800	3450
16	3310	3710	10700	11700	23300	15100	55200	71400	30300	3600	3530	4740
17	3960	3660	16500	e10900	20300	16800	46600	66500	27000	3540	4530	5930
18	3870	3620	34100	10500	19100	19500	40700	71800	25000	3640	4370	5380
19	4030	3550	45500	8180	17700	18100	42000	76100	23100	3850	3710	4240
20	4480	3940	39500	7090	16900	18800	41800	68000	22400	4580	3270	4200
21	3870	4540	36100	7060	16500	22400	36100	65300	19300	3680	4000	4310
22	3390	5330	33700	8280	19200	25800	33800	59000	14200	3690	3390	3320
23	3690	5510	29000	8580	18400	27900	32800	53800	11600	4600	4260	3940
24	8710	5090	28500	9450	16600	25400	29000	46200	9370	4650	5420	3000
25	10000	5500	32600	15700	15600	24900	25800	39900	8830	4370	5240	3040
26	8610	9100	30700	23700	16400	30800	22000	33200	7670	4120	4720	3510
27	7760	12000	26300	25200	16100	44000	19300	28500	7610	4220	4970	5840
28	7140	12600	23100	23500	17500	44200	17600	27400	9530	6540	4270	6810
29	7850	13500	21200	21300	---	45000	22400	23500	9570	5480	3350	8010
30	8010	13900	17500	23100	---	48100	29600	19900	10800	8890	3320	6700
31	6860	---	14800	32300	---	55000	---	20700	---	13200	2970	---
TOTAL	143190	182660	625880	391130	794900	738700	1018500	1367100	657880	167430	136150	122750
MEAN	4619	6089	20190	12620	28390	23830	33950	44100	21930	5401	4392	4092
MAX	10000	13900	45500	32300	53700	55000	55200	88600	42800	13200	10500	8010
MIN	2740	3550	7330	7060	15600	12800	17600	19900	7610	3430	2970	2950
CFSM	0.40	0.53	1.77	1.11	2.49	2.09	2.98	3.87	1.92	0.47	0.38	0.36
IN.	0.47	0.60	2.04	1.28	2.59	2.41	3.32	4.46	2.14	0.55	0.44	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)

MEAN	9626	16250	23760	24340	27380	37990	35530	22920	14660	8901	6577	6770
MAX	34470	45220	48690	68600	53390	87030	83780	48400	45820	34630	23020	22690
(WY)	1991	1986	1978	1952	1976	1945	1940	1943	1989	1972	1956	1990
MIN	1227	2686	2316	4520	7167	10410	9000	6129	3759	1944	1786	1444
(WY)	1964	1954	1961	1961	1963	1969	1946	1941	1991	1966	1962	1939

e Estimated.

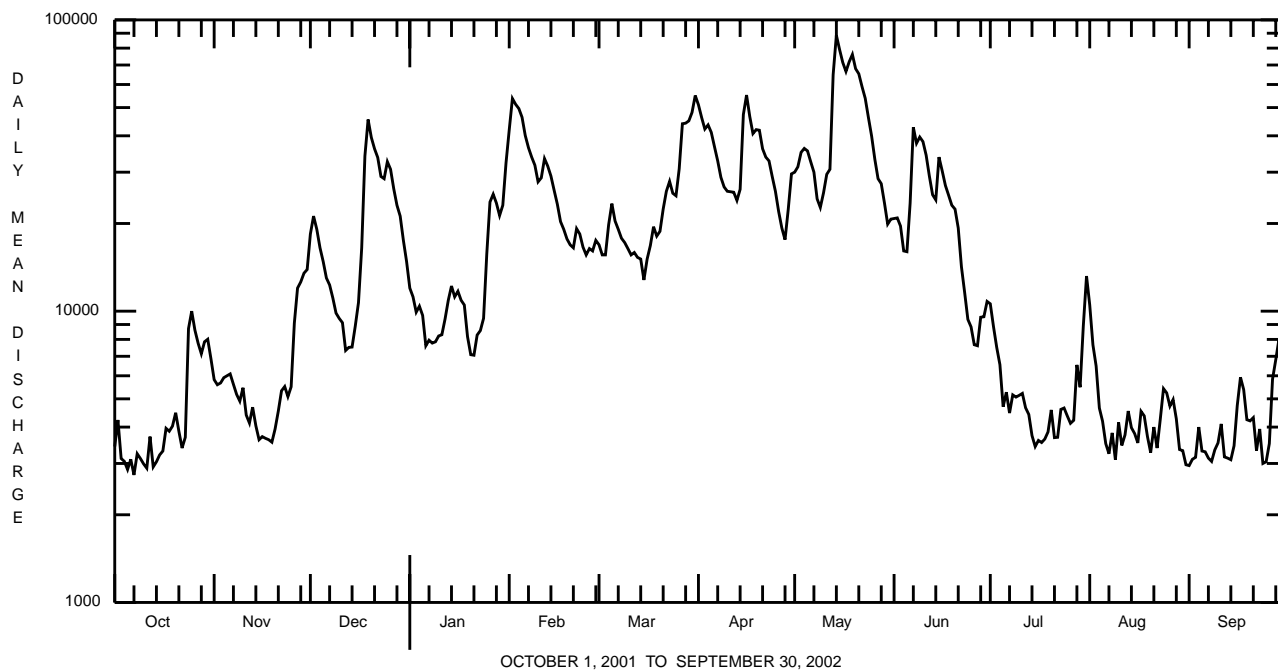
OHIO RIVER MAIN STEM

03049500 ALLEGHENY RIVER AT NATRONA, PA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1939 - 2002	
ANNUAL TOTAL	4734010		6346270			
ANNUAL MEAN	12970		17390		19510	
HIGHEST ANNUAL MEAN					27810	1956
LOWEST ANNUAL MEAN					12680	1999
HIGHEST DAILY MEAN	55200	Apr 17	88600	May 14	206000	Dec 31 1942
LOWEST DAILY MEAN	2140	Sep 10	2740	Oct 7	949	Oct 26 1963
ANNUAL SEVEN-DAY MINIMUM	2620	Sep 7	2990	Oct 5	1030	Oct 25 1963
MAXIMUM PEAK FLOW			90500	May 14	^a 238000	Dec 30 1942
MAXIMUM PEAK STAGE			17.68	May 14	^b 27.46	Dec 30 1942
INSTANTANEOUS LOW FLOW			2740	Oct 7	985	Oct 22 1963
ANNUAL RUNOFF (CFSM)	1.14		1.52		1.71	
ANNUAL RUNOFF (INCHES)	15.43		20.69		23.24	
10 PERCENT EXCEEDS	32800		40000		44800	
50 PERCENT EXCEEDS	7900		11100		13000	
90 PERCENT EXCEEDS	3270		3430		3170	

^a From rating curve extended above 172,000 ft³/s.

^b Datum then in use.



OHIO RIVER MAIN STEM

03049500 ALLEGHENY RIVER AT NATRONA, 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 210-233.

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 2001 TO SEPTEMBER 2002

Date	Time	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	ANC WATER UNFLTRD FET LAB (MG/L AS CACO3) (00417)	FLUO-RIDE, TOTAL (MG/L AS F) (00951)	
APR 2002	10...	1130	9813	26440	40	7.0	7.5	191	10.0	100	28.2	7.2	36	<.2
JUN	05...	1030	9813	17250	40	9.8	7.7	258	22.6	87	23.9	6.5	32	<.2
AUG	01...	0945	9813	10280	40	7.5	7.6	284	25.0	110	29.7	8.8	42	<.2

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	COPPER, TOTAL RECOV-ERABLE (µG/L AS CU) (01042)	CYANIDE AMEN-ABLE TO CHLOR-INATION UNFLTRD (MG/L) (00722)	IRON, TOTAL RECOV-ERABLE (µG/L AS FE) (01045)	
APR 2002	10...	79.9	210	12	.100	.81	<.040	1.1	.04	.040	2.1	<10	<1.00	960
JUN	05...	54.0	174	4	<.020	.39	<.040	.66	<.01	.020	2.6	<10	<1.00	500
AUG	01...	71.8	198	6	<.020	.32	<.040	.55	.01	.020	2.4	<10	1.48	190

Date	LEAD, TOTAL RECOV-ERABLE (µG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (µG/L AS MN) (01055)	NICKEL, TOTAL RECOV-ERABLE (µG/L AS NI) (01067)	ZINC, TOTAL RECOV-ERABLE (µG/L AS ZN) (01092)	PHENOLS TOTAL (µG/L) (32730)	
APR 2002	10...	1.5	170	<50	20	<5
JUN	05...	<1.0	220	<50	<10	<5
AUG	01...	<1.0	100	<50	10	<5