



2005 Water Year
OHIO RIVER BASIN
03036500 Allegheny River at Kittanning, PA

Latitude: 40° 49 ' 13"

Longitude: 079° 31 ' 54"

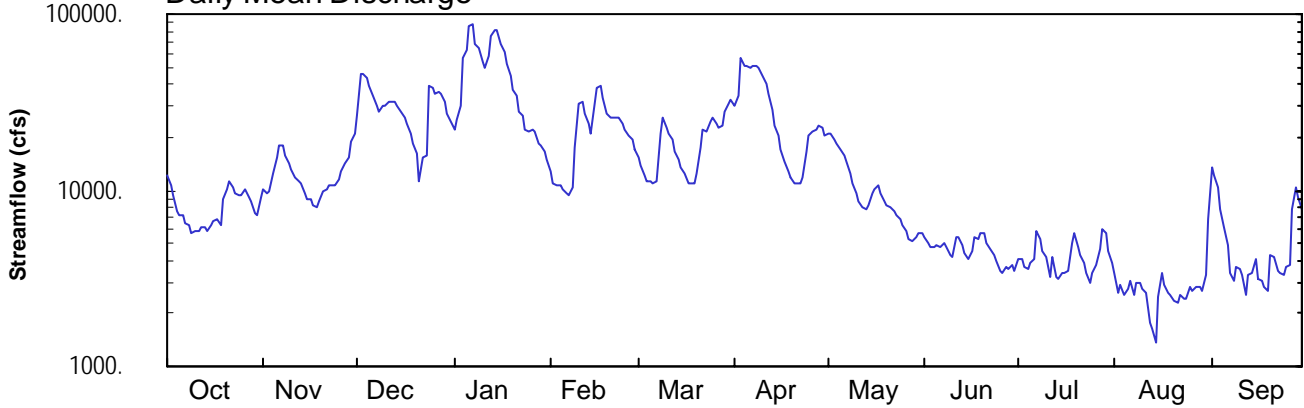
Hydrologic Unit Code: 05010006

Armstrong County

Datum: 773.40 feet

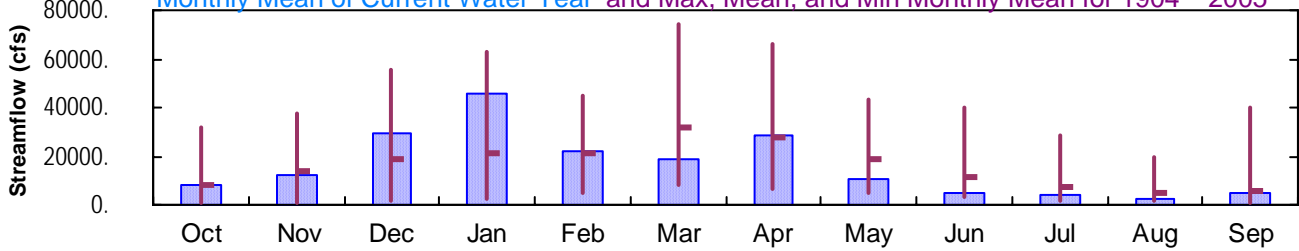
Drainage Area: 8973. mi²

Daily Mean Discharge

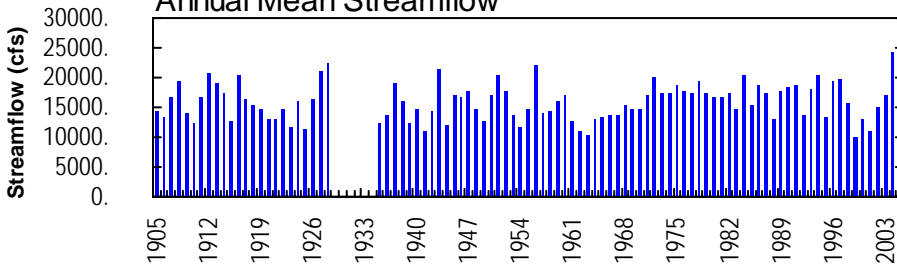


Monthly Statistics

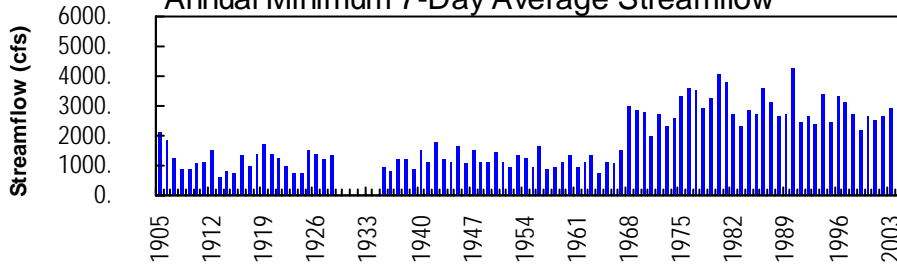
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1904 – 2005



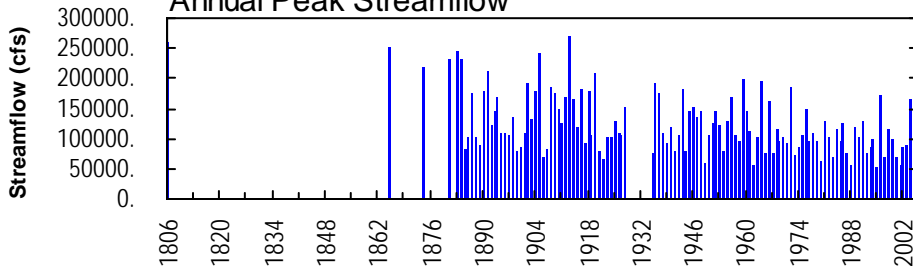
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



OHIO RIVER MAIN STEM

03036500 ALLEGHENY RIVER AT KITTANNING, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°49'13", long 79°31'54", Armstrong County, Hydrologic Unit 05010006, on right bank 600 ft upstream from dam at lock 7, 3,000 ft upstream from bridge on SR 1038 at Kittanning, 5.7 mi upstream from Crooked Creek, and 9.7 mi downstream from Mahoning Creek, at mile 45.8.

DRAINAGE AREA.--8,973 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1904 to September 1928, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 873: Drainage area. WSP 1305: 1906 (M), 1914, 1925. WSP 1435: 1936-37, 1939.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 773.40 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Sept. 30, 1928, nonrecording gage at site 4,000 ft downstream at different datum. Oct. 1, 1934 to Apr. 19, 1939, nonrecording gage, Apr. 20, 1939 to Sept. 27, 1990, water-stage recorder at present site at different datum.

REMARKS.--No estimated daily discharges. Records good except 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 December 1940 by Tionesta Lake, since June 1941 by Mahoning Creek 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12000	10000	26600	22300	12900	15300	30500	20800	5440	4080	3400	13500
2	10600	9570	45400	25400	11000	13900	34300	21000	4980	4060	2650	12200
3	9430	9820	45900	30100	10800	12200	57000	19400	4740	3650	2920	10400
4	7660	12600	43000	57100	10700	11100	50700	18400	4750	3530	2580	7780
5	7290	15200	39300	62700	10200	11200	51400	17200	4830	3910	2780	6110
6	7210	17900	34800	85900	9660	10900	50100	15800	4750	4050	3040	4880
7	6520	18200	29900	87300	9320	11200	50600	14500	5050	5860	2550	3400
8	6380	15600	27700	66800	10500	20700	51300	12500	4740	5240	2970	3060
9	5680	14400	30000	63900	17500	25600	49100	10800	4270	4560	2980	3630
10	5840	13100	30200	53800	31300	22800	44600	9660	4190	4170	2740	3570
11	5920	11800	32100	49300	31700	20800	40100	8610	5420	3240	2630	3280
12	6200	11200	31900	57400	26900	19600	35100	8070	5420	4190	1790	2530
13	6240	11100	31600	75400	23600	16700	28500	7720	4930	3230	1630	3290
14	5890	9660	30400	81200	20800	14900	23000	8280	4360	3100	1380	3390
15	6280	8970	28200	80200	31400	13600	20400	9670	4050	3410	2490	4060
16	6730	8950	26000	68300	38500	12500	17000	10200	4570	3380	3420	3160
17	6930	8290	23800	61400	39300	10900	14500	10600	5480	3460	2900	3050
18	6310	8000	21100	52200	33600	11000	12900	9510	5350	5010	2650	2820
19	8870	8670	18200	44700	26900	10800	12000	8680	5660	5750	2560	2690
20	10100	9790	16300	37600	25800	12300	11000	8280	5650	4710	2360	4310
21	11300	10200	11300	34400	25600	17700	10800	7990	5050	4310	2290	4170
22	10300	10700	15200	28200	26100	21800	10800	7590	4620	3850	2520	3520
23	9610	10600	15900	26700	25600	21300	11900	7300	4260	3430	2390	3380
24	9320	10700	39300	21800	23900	24600	16500	6810	4010	2970	2400	3310
25	9250	11600	38700	21400	22000	25900	20300	6400	3520	3440	2870	3650
26	10100	12900	35300	22400	20600	23900	21500	5810	3360	3770	2670	3720
27	9230	14200	35800	21500	19200	22700	21900	5230	3640	4690	2820	7720
28	8620	15200	35500	18500	16800	23000	23600	5130	3590	6060	2830	10400
29	7320	19100	31800	17700	---	28000	22600	5390	3780	5650	2660	9130
30	7290	20800	27400	16500	---	31300	20700	5710	3460	4560	3310	7810
31	9010	---	24400	15000	---	32500	---	5720	---	3910	6940	---
TOTAL	249430	368820	923000	1407100	612180	570700	864700	318760	137920	129230	86120	157920
MEAN	8046	12290	29770	45390	21860	18410	28820	10280	4597	4169	2778	5264
MAX	12000	20800	45900	87300	39300	32500	57000	21000	5660	6060	6940	13500
MIN	5680	8000	11300	15000	9320	10800	10800	5130	3360	2970	1380	2530
CFSM	0.90	1.37	3.32	5.06	2.44	2.05	3.21	1.15	0.51	0.46	0.31	0.59
IN.	1.03	1.53	3.83	5.83	2.54	2.37	3.58	1.32	0.57	0.54	0.36	0.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2005, BY WATER YEAR (WY)

MEAN	8363	14090	19140	21090	20860	31780	27710	18470	11350	7104	5298	5964
MAX	31750	37830	55850	62840	45020	74110	66140	43650	40230	28200	19250	40250
(WY)	1991	1986	1928	1937	1990	1936	1940	1919	1989	1972	1977	2004
MIN	848	1155	1636	2752	4688	8342	6585	4860	2893	1511	1274	930
(WY)	1924	1909	1961	1961	1963	1969	1946	1941	1936	1966	1910	1909

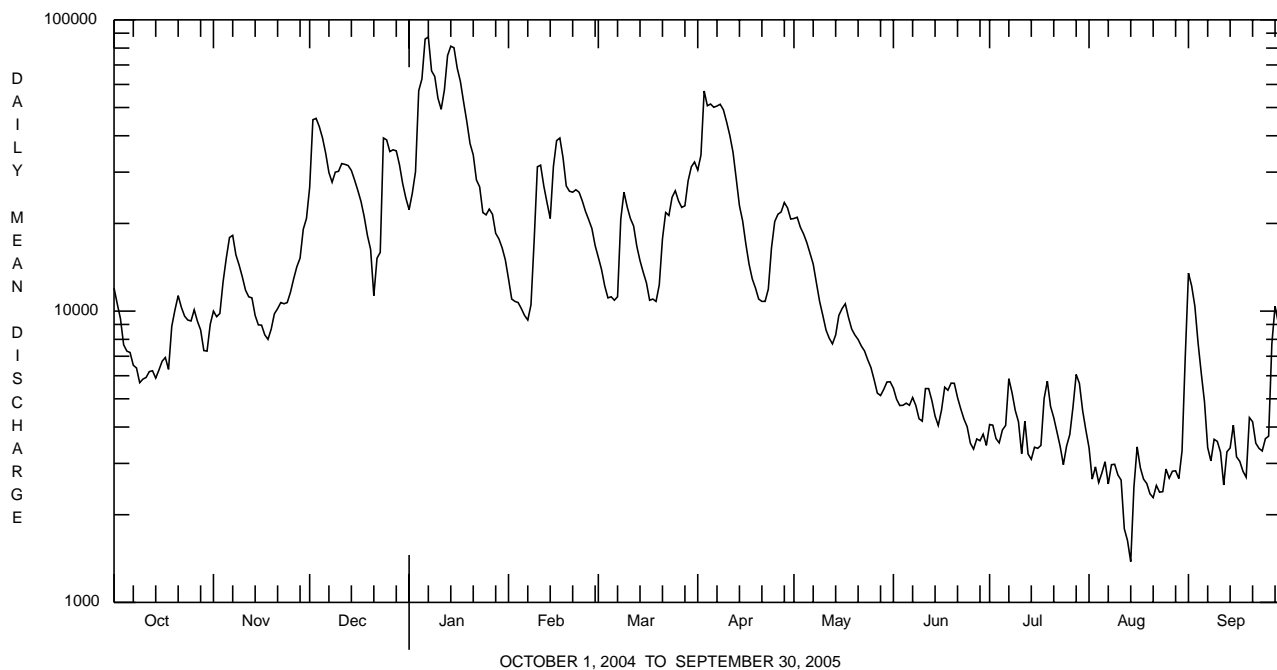
OHIO RIVER MAIN STEM

0303650 ALLEGHENY RIVER AT KITTANNING, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1904 - 2005	
ANNUAL TOTAL	8195940		5825880			
ANNUAL MEAN	22390		15960		15910	
HIGHEST ANNUAL MEAN					24460	
LOWEST ANNUAL MEAN					10080	
HIGHEST DAILY MEAN	144000	Sep 18	87300	Jan 7	253000	Mar 26 1913
LOWEST DAILY MEAN	4180	Jul 4	1380	Aug 14	570	Sep 15 1913 ^a
ANNUAL SEVEN-DAY MINIMUM	4790	Jul 4	2230	Aug 9	610	Sep 11 1913
MAXIMUM PEAK FLOW			102000	Jan 6	269000	Mar 26 1913
MAXIMUM PEAK STAGE			18.14	Jan 6	b 30.70	Mar 26 1913
ANNUAL RUNOFF (CFSM)	2.50		1.78		1.77	
ANNUAL RUNOFF (INCHES)	33.98		24.15		24.10	
10 PERCENT EXCEEDS	44100		35400		37100	
50 PERCENT EXCEEDS	17200		10400		10100	
90 PERCENT EXCEEDS	6650		3240		2310	

^a Also Sept. 16, 17, 1913.

^b From floodmark, site and datum then in use.



OHIO RIVER MAIN STEM

03036500 ALLEGHENY RIVER AT KITTANNING, 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 2004 TO SEPTEMBER 2005

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)
NOV 2004 09...	1250	1028	9813	14400	11.6	7.4	7.6	208	210	9.5	74	21.0	5.3
JAN 2005 25...	1230	1028	9813	20400	14.8	7.0	7.5	173	168	.5	61	16.4	4.9
MAR 24...	1150	1028	9813	24600	13.5	7.7	7.7	207	212	4.2	70	19.3	5.3
MAY 19...	1330	1028	9813	8580	9.5	7.7	7.8	220	224	17.2	78	21.6	5.9
JUL 21...	0915	1028	9813	4460	8.5	8.5	8.0	249	345	25.1	93	26.2	6.8
SEP 22...	1240	1028	9813	3780	7.5	7.5	7.1	236	244	25.0	71	20.0	5.1

Date	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (00417)	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, 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)	Ortho-phosphate, 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, µg/L (01105)
NOV 2004 09...	45	<.2	30.5	146	16	.020	.35	<.040	.02	.024	.63	3.7	260
JAN 2005 25...	30	<.2	32.3	134	<2	.220	.59	<.040	.02	.011	.66	1.8	290
MAR 24...	34	<.2	34.4	130	<2	.040	.65	<.040	.02	.018	1.1	1.9	250
MAY 19...	39	<.2	41.6	138	10	.020	.30	<.040	.01	.017	.51	--	340
JUL 21...	44	<.2	43.9	156	192	.030	.18	<.040	<.01	.108	.57	--	3000
SEP 22...	43	<.2	35.9	182	<2	.030	.07	<.040	.01	.021	.20	--	<200

Date	Copper, water, unfltrd recover-able, µg/L (01042)	Cyanide, amenable to chlorination, wat unfltrd mg/L (00722)	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)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004 09...	<10	<1.00	580	1.5	120	<50	<10	<5
JAN 2005 25...	<10	<1.00	450	<1.0	180	<50	<10	<5
MAR 24...	<10	<1.00	540	<1.0	220	<50	10	<5
MAY 19...	<10	<1.00	570	<1.0	160	<50	<10	<5
JUL 21...	10	<1.00	6780	7.4	1490	<50	50	<5
SEP 22...	<10	<1.00	180	<1.0	60	<50	<10	<5

OHIO RIVER MAIN STEM

03036500 ALLEGHENY RIVER AT KITTANNING, 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 100 animal (approximate) subsamples.

Date	11/04/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	7
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Hydrobiidae	
<i>Ammicola</i>	2
Physidae	
<i>Physa</i>	1
Planorbidae	
<i>Menetus dilatatus</i>	42
Bivalvia (CLAMS)	
Veneroidea	
Corbiculidae	
<i>Corbicula fluminea</i>	4
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	76
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Crangonyctidae	
<i>Crangonyx</i>	3
Gammaridae	
<i>Gammarus</i>	2
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
<i>Stenacron</i>	5
<i>Stenonema</i>	1
Tricorythidae	
<i>Tricorythodes</i>	2
Trichoptera (CADDISFLIES)	
Hydroptilidae	
<i>Hydroptila</i>	1
Leptoceridae	
<i>Oecetis</i>	2
Polycentropodidae	
<i>Neureclipsis</i>	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Macronychus</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	56
Total Organisms	207
Total Taxa	16