



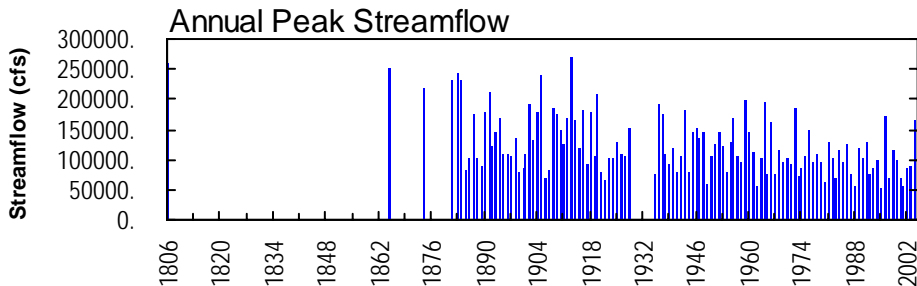
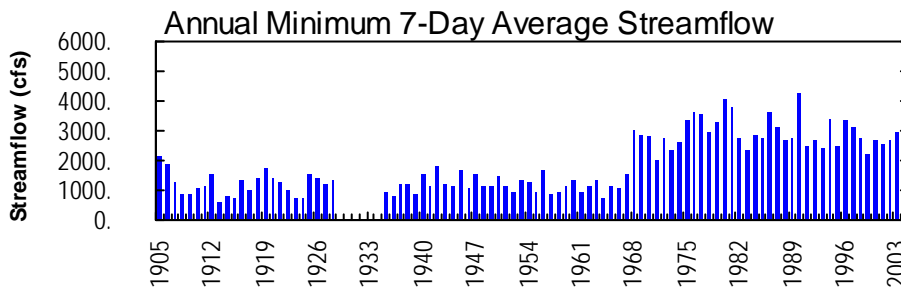
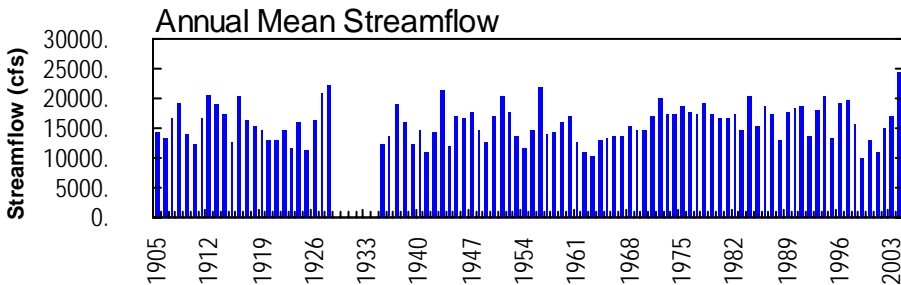
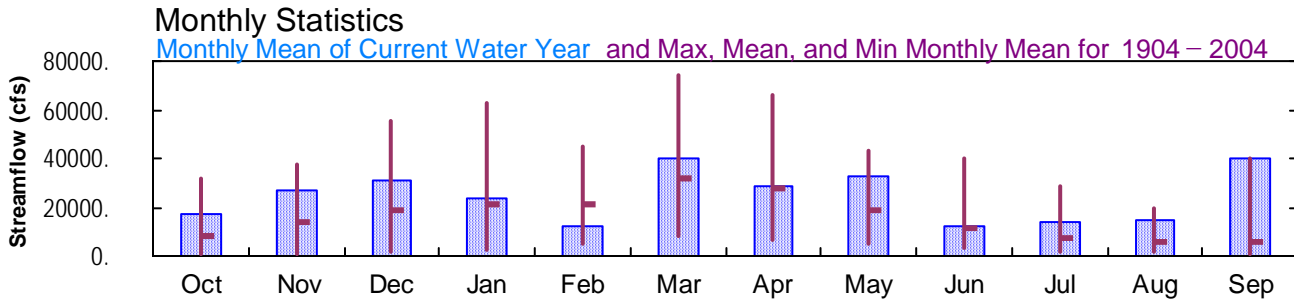
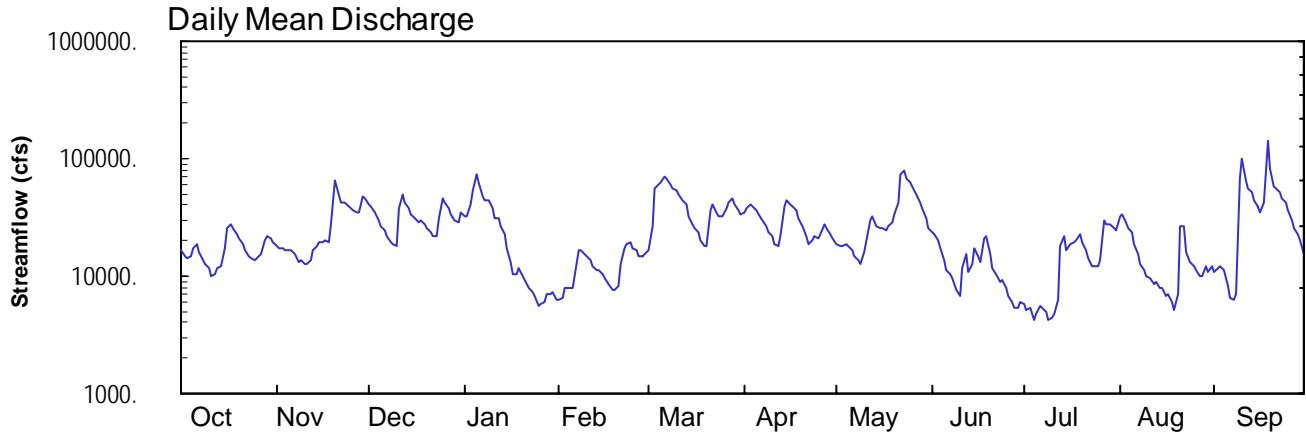
2004 Water Year OHIO RIVER BASIN

03036500 Allegheny River at Kittanning, PA

Latitude: 40° 49' 13"
Armstrong County

Longitude: 079° 31' 54"
Datum: 773.40 feet

Hydrologic Unit Code: 05010006
Drainage Area: 8973. mi²



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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16900	18000	41400	32700	6310	16400	34500	18800	23400	5700	32100	11000
2	15000	17300	38600	32600	6480	26600	37400	17600	22500	5190	34000	11500
3	14500	17300	34900	41000	7900	56000	40500	17900	20300	5300	28800	12300
4	14700	16800	29900	52800	7780	59300	39900	18600	17200	4180	25700	11400
5	17600	16400	26900	73600	7760	61700	36900	17900	13600	4750	23600	8170
6	18900	16700	24300	61500	9880	71400	33300	16800	11300	5660	18500	6400
7	15800	15500	22100	47100	16900	68000	29700	15000	10500	5430	15300	6160
8	13800	13300	19600	44100	16800	59300	26400	13700	9510	4970	12700	6980
9	12500	13700	18300	44000	15300	56100	23800	12800	7510	4200	11200	67600
10	11500	12400	18100	37700	14900	53300	21600	16100	6790	4330	10100	100000
11	9950	12900	37600	30900	13900	48600	19000	20100	11800	4790	9620	65800
12	10500	13800	49300	31200	12100	44300	17800	30100	15100	6150	8420	56600
13	11900	16400	42200	26900	11400	40000	21700	32100	10900	18200	8950	50600
14	12100	17600	37600	23000	11400	32600	39400	26400	12500	21500	7890	44800
15	17300	19200	34200	17500	10500	27200	44200	26000	17200	16500	7880	40000
16	25700	19200	30500	13400	9700	25600	40600	25300	15000	18400	6800	35400
17	27100	20000	28800	10400	8640	23300	40000	24800	13000	19100	7180	42600
18	25800	19700	29700	10200	7700	20300	35700	26400	20700	20200	6100	144000
19	23000	26900	28100	11500	7670	17800	30500	29200	21400	22900	5160	80900
20	20900	65500	25700	9880	8220	18000	26300	33800	15100	19800	7010	58500
21	18800	50200	24000	9300	12700	35700	22100	41600	11900	16700	26500	55300
22	16800	42600	21600	7990	17200	41500	18900	72600	10600	14400	26800	51800
23	14800	43000	21600	7340	18900	34400	20200	79200	8800	12200	16300	46400
24	14200	40900	30700	6790	19100	32300	21500	66700	9230	12100	13100	43000
25	13800	37800	45700	5620	17600	31900	21100	63700	8000	12200	12300	36100
26	14000	36600	42400	5710	16400	37100	22900	57400	6710	13900	11200	30300
27	15500	35000	37500	6110	14700	41700	27100	49400	6090	29400	9870	25500
28	20500	34500	33100	7030	14800	46100	25100	41700	5330	28100	10000	23100
29	21400	47900	29700	6980	15200	41200	22700	37300	5270	27800	12400	19900
30	21100	45600	29000	7230	---	36400	21000	31200	6100	25300	11000	15300
31	19800	---	34800	6290	---	33500	---	25500	---	24800	12000	---
TOTAL	526150	802700	967900	728370	357840	1237600	861800	1005700	373340	434150	448480	1207410
MEAN	16970	26760	31220	23500	12340	39920	28730	32440	12440	14000	14470	40250
MAX	27100	65500	49300	73600	19100	71400	44200	79200	23400	29400	34000	144000
MIN	9950	12400	18100	5620	6310	16400	17800	12800	5270	4180	5160	6160
CFSM	1.89	2.98	3.48	2.62	1.38	4.45	3.20	3.62	1.39	1.56	1.61	4.49
IN.	2.18	3.33	4.01	3.02	1.48	5.13	3.57	4.17	1.55	1.80	1.86	5.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

MEAN	8367	14110	19030	20830	20850	31930	27700	18560	11420	7136	5324	5972
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

03036500 ALLEGHENY RIVER AT KITTANNING, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	7516440		8951440			
ANNUAL MEAN	20590		24460		15910	
HIGHEST ANNUAL MEAN					24460	2004
LOWEST ANNUAL MEAN					10080	1999
HIGHEST DAILY MEAN	67200	Jul 23	144000	Sep 18	253000	Mar 26 1913
LOWEST DAILY MEAN	4060	Jul 5	4180	Jul 4	570	Sep 15 1913 ^a
ANNUAL SEVEN-DAY MINIMUM	4580	Jun 30	4790	Jul 4	610	Sep 11 1913
MAXIMUM PEAK FLOW			166000	Sep 18	269000	Mar 26 1913
MAXIMUM PEAK STAGE			22.25	Sep 18	30.70	Mar 26 1913
ANNUAL RUNOFF (CFSM)	2.29		2.73		1.77	
ANNUAL RUNOFF (INCHES)	31.16		37.11		24.10	
10 PERCENT EXCEEDS	41100		45600		37100	
50 PERCENT EXCEEDS	17500		19600		10100	
90 PERCENT EXCEEDS	6060		7310		2290	

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 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	23...	1028	9813	14500	10.8	7.1	7.5	168	168	12.0	60	17.2	4.2
DEC	11...	1028	9813	41000	12.6	7.0	7.1	168	175	3.5	65	17.4	5.2
FEB 2004	25...	1028	9813	18000	13.0	7.4	7.4	244	252	2.2	74	20.1	5.9
APR	19...	1028	9813	30200	10.8	7.6	7.3	152	152	12.5	51	14.0	3.8
JUN	21...	1028	9813	12800	8.7	7.5	7.3	191	191	21.0	67	18.0	5.3
AUG	12...	1028	9813	6960	8.4	7.4	6.8	187	193	21.5	69	19.2	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)
OCT 2003	39	<.2	19.9	166	4	<.020	.34	<.040	.02	.017	.67	3.6	300
DEC	34	<.2	28.9	158	58	.020	.56	<.040	.04	.039	.83	2.6	1200
FEB 2004	35	<.2	36.8	126	26	.070	.81	<.040	.02	.017	1.0	1.9	200
APR	23	<.2	24.4	108	20	<.020	.53	<.040	.02	.026	.76	2.0	400
JUN	30	<.2	38.8	158	<2	.050	.55	<.040	.02	.028	.93	3.3	500
AUG	42	<.2	28.6	126	10	<.020	.35	<.040	.02	.030	.59	2.9	500

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)
OCT 2003	<10	<1.00	580	<1.0	80	<50	<10	<5
DEC	<10	<1.00	1810	1.1	250	<50	<10	<5
FEB 2004	<10	<1.00	430	<1.0	230	<50	<10	<5
APR	<10	<1.00	570	<1.0	130	<50	<10	<5
JUN	<10	<1.00	820	<1.0	180	<50	30	<5
AUG	<10	<1.00	900	<1.0	220	<50	<10	7

OHIO RIVER MAIN STEM

03036500 ALLEGHENY RIVER AT KITTANNING, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a multiplate sampler that was deployed for 5 weeks. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/15/03
Benthic Macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Physidae	
<i>Physa</i>	11
Planorbidae	
<i>Menetus dilatatus</i>	6
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	3
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Trichoptera (CADDISFLIES)	
Polycentropodidae	
<i>Neureclipsis</i>	1
<i>Polycentropus</i>	4
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	47
Total Organisms	73
Total Taxa	7