

OHIO RIVER MAIN STEM

03036500 ALLEGHENY RIVER AT KITTANNING, PA

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.

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 sea level (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 1,500 ft³/s, which are poor. Flow regulated since 1924 by Piney Reservoir, since 1941 by Mahoning Creek Lake, and Tionesta Lake, since 1949 by Chautauqua Lake (station 03013946), since 1952 by East Branch Clarion River Lake (station 03027000), since 1965 by Allegheny Reservoir (station 03012520), since 1971 by Union City Reservoir (station 03021518), and since 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| 1 | 2850 | 2690 | 3020 | 3180 | 35400 | 15300 | 15800 | 14000 | 7310 | 3420 | 3600 | 2270 |
| 2 | 2630 | 3170 | 3350 | 1910 | 36100 | 16600 | 16700 | 12500 | 6260 | 5250 | 2600 | 2310 |
| 3 | 2840 | 3750 | 3600 | 1530 | 40900 | 16500 | 21100 | 11100 | 5970 | 5850 | 2700 | 2600 |
| 4 | 2850 | 3700 | 3320 | 2160 | 41800 | 24000 | 22700 | 9270 | 5800 | 4610 | 2380 | 2600 |
| 5 | 2660 | 3360 | 3380 | 2850 | 39500 | 27600 | 26700 | 7980 | 4990 | 2830 | 2780 | 2220 |
| 6 | 3130 | 3120 | 3210 | 2910 | 38400 | 23500 | 25900 | 7970 | 4390 | 2480 | 2530 | 2310 |
| 7 | 2670 | 3110 | 3020 | 3270 | 35100 | 21800 | 25300 | 6570 | 3940 | 2260 | 2630 | 2540 |
| 8 | 4660 | 3290 | 2980 | 3090 | 34800 | 17200 | 22800 | 7310 | 4500 | 3000 | 2340 | 3220 |
| 9 | 6280 | 3460 | 2930 | 3350 | 31100 | 14900 | 23600 | 10100 | 3440 | 3550 | 2210 | 2970 |
| 10 | 6150 | 3660 | 3040 | 3020 | 28600 | 14500 | 40900 | 9610 | 3010 | 3960 | 2470 | 2610 |
| 11 | 5310 | 4160 | 3110 | 3030 | 26900 | 14200 | 40700 | 10300 | 2500 | 3380 | 2530 | 2450 |
| 12 | 4650 | 4100 | 2710 | 3520 | 24200 | 11600 | 45000 | 11600 | 2770 | 2910 | 2620 | 2140 |
| 13 | 4620 | 3850 | 2630 | 4240 | 24700 | 11400 | 42100 | 11000 | 2160 | 3040 | 2390 | 2340 |
| 14 | 3810 | 3610 | 2700 | 5290 | 26400 | 11200 | 39500 | 10300 | 2550 | 3070 | 2940 | 2170 |
| 15 | 3250 | 3370 | 2550 | 6370 | 24800 | 10700 | 33100 | 9900 | 3390 | 2150 | 3120 | 2470 |
| 16 | 3130 | 2650 | 2590 | 6480 | 23600 | 10800 | 27000 | 9800 | 2940 | 2570 | 3140 | 2420 |
| 17 | 2850 | 2490 | 2820 | 6620 | 22100 | 10800 | 24600 | 9550 | 2680 | 2420 | 2830 | 2340 |
| 18 | 2790 | 2400 | 2110 | 8390 | 19300 | 17600 | 24300 | 9960 | 2320 | 2490 | 2320 | 3090 |
| 19 | 3720 | 3090 | 3330 | 15500 | 21300 | 24200 | 24800 | 12000 | 2240 | 2720 | 1760 | 2170 |
| 20 | 3610 | 3610 | 3080 | 17400 | 19100 | 24800 | 26500 | 9340 | 1710 | 3150 | 1930 | 2240 |
| 21 | 3220 | 3640 | 3170 | 17200 | 16800 | 22200 | 26400 | 8100 | 1950 | 2810 | 2030 | 2700 |
| 22 | 3120 | 3590 | 7160 | 17300 | 14300 | 19300 | 25500 | 7890 | 2190 | 3640 | 2880 | 2240 |
| 23 | 3160 | 3600 | 17600 | 30300 | 12800 | 20200 | 26500 | 7100 | 2130 | 3150 | 3680 | 2610 |
| 24 | 3150 | 3390 | 14100 | 82900 | 11700 | 18900 | 29600 | 7700 | 2630 | 3770 | 3330 | 2510 |
| 25 | 2260 | 3120 | 11000 | 78700 | 11200 | 16400 | 29300 | 14000 | 2500 | 3420 | 3440 | 2600 |
| 26 | 2150 | 3360 | 8260 | 54700 | 10600 | 17300 | 26400 | 15400 | 3420 | 2980 | 4950 | 2660 |
| 27 | 2350 | 3150 | 5800 | 44300 | 9280 | 15600 | 25100 | 14700 | 2460 | 2820 | 5770 | 2770 |
| 28 | 2610 | 3080 | 6830 | 41400 | 10500 | 15400 | 21900 | 13400 | 2720 | 2930 | 4810 | 3190 |
| 29 | 2990 | 3040 | 6310 | 45800 | --- | 15400 | 19900 | 10500 | 2910 | 3580 | 2850 | 3340 |
| 30 | 2980 | 2960 | 4620 | 44500 | --- | 15200 | 16700 | 9590 | 3620 | 2790 | 2480 | 4600 |
| 31 | 2950 | --- | 3900 | 39600 | --- | 15400 | --- | 8660 | --- | 2750 | 2410 | --- |
| TOTAL | 105400 | 99570 | 148230 | 600810 | 691280 | 530500 | 816400 | 317200 | 101400 | 99750 | 90450 | 78700 |
| MEAN | 3400 | 3319 | 4782 | 19380 | 24690 | 17110 | 27210 | 10230 | 3380 | 3218 | 2918 | 2623 |
| MAX | 6280 | 4160 | 17600 | 82900 | 41800 | 27600 | 45000 | 15400 | 7310 | 5850 | 5770 | 4600 |
| MIN | 2150 | 2400 | 2110 | 1530 | 9280 | 10700 | 15800 | 6570 | 1710 | 2150 | 1760 | 2140 |
| CFSM | .38 | .37 | .53 | 2.16 | 2.75 | 1.91 | 3.03 | 1.14 | .38 | .36 | .33 | .29 |
| IN. | .44 | .41 | .61 | 2.49 | 2.87 | 2.20 | 3.38 | 1.32 | .42 | .41 | .37 | .33 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1999, BY WATER YEAR (WY)

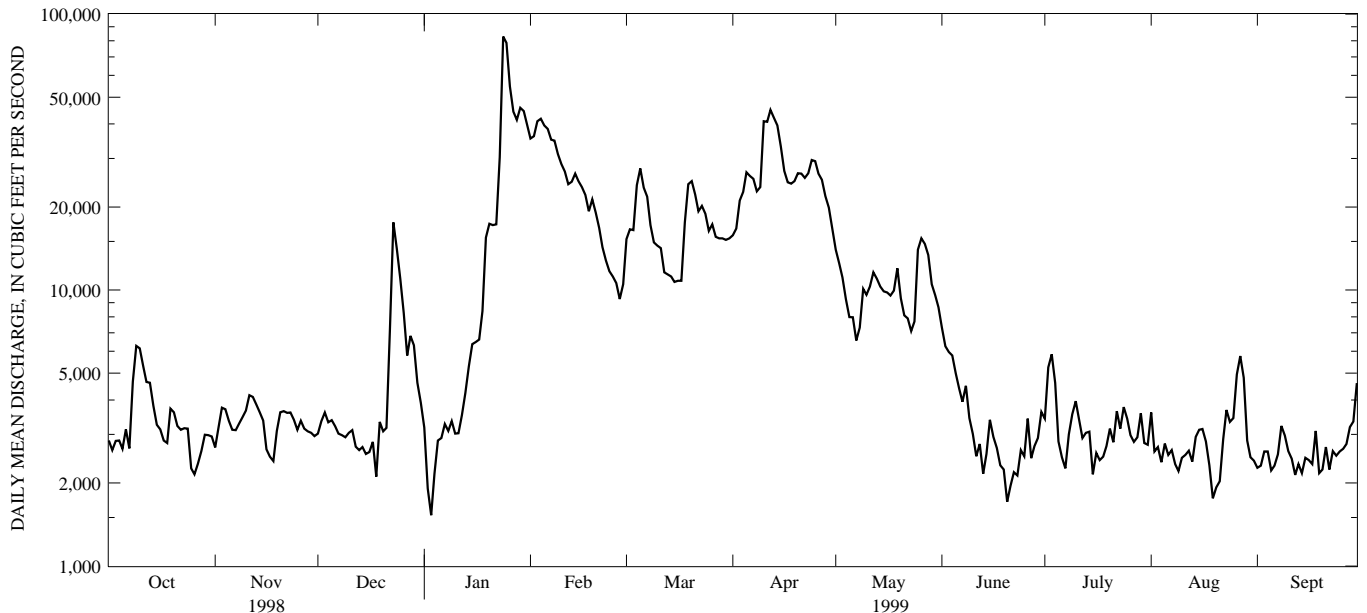
| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MEAN | 8417 | 14240 | 18950 | 21180 | 21010 | 32320 | 27720 | 18390 | 11280 | 7002 | 5070 | 5554 |
| MAX | 31750 | 37830 | 55850 | 62840 | 45020 | 74110 | 66140 | 43650 | 40230 | 28200 | 19250 | 23500 |
| (WY) | 1991 | 1986 | 1928 | 1937 | 1990 | 1936 | 1940 | 1919 | 1989 | 1972 | 1977 | 1926 |
| 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 |

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03036500 ALLEGHENY RIVER AT KITTANNING, PA--Continued

| SUMMARY STATISTICS | FOR 1998 CALENDAR YEAR | | FOR 1999 WATER YEAR | | WATER YEARS 1904 - 1999 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------------------|
| ANNUAL TOTAL | 4598360 | | 3679690 | | | |
| ANNUAL MEAN | 12600 | | 10080 | | 15900 | |
| HIGHEST ANNUAL MEAN | | | | | 22400 | |
| LOWEST ANNUAL MEAN | | | | | 10080 | |
| HIGHEST DAILY MEAN | 110000 | Jan 9 | 82900 | Jan 24 | 253000 | Mar 26 1913 |
| LOWEST DAILY MEAN | 2110 | Dec 18 | 1530 | Jan 3 | 570 | Sep 15 1913 ^a |
| ANNUAL SEVEN-DAY MINIMUM | 2590 | Dec 12 | 2170 | Jun 18 | 610 | Sep 11 1913 |
| INSTANTANEOUS PEAK FLOW | | | 98000 | Jan 24 | 269000 | Mar 26 1913 |
| INSTANTANEOUS PEAK STAGE | | | 17.87 | Jan 24 | 30.70 | Mar 26 1913 |
| ANNUAL RUNOFF (CFSM) | 1.40 | | 1.12 | | 1.77 | |
| ANNUAL RUNOFF (INCHES) | 19.06 | | 15.26 | | 24.08 | |
| 10 PERCENT EXCEEDS | 31000 | | 26100 | | 37200 | |
| 50 PERCENT EXCEEDS | 4660 | | 3640 | | 10000 | |
| 90 PERCENT EXCEEDS | 2850 | | 2410 | | 2200 | |

a Also Sept. 16, 17, 1913.
 b From Floodmark, site and datum then in use.



1-YEAR HYDROGRAPH
 OCTOBER 1, 1998 TO SEPTEMBER 30, 1999