

OHIO RIVER MAIN STEM

03049500 ALLEGHENY RIVER AT NATRONA, PA

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.

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 sea level (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.--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 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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 6020 | 6460 | 21800 | 9300 | 20600 | 17300 | 22600 | 15000 | 10900 | 6670 | 3010 | 6430 |
| 2 | 5520 | 5940 | 22600 | 8250 | 24100 | 14400 | 22100 | 14200 | 12200 | 7900 | 3760 | 4830 |
| 3 | 5250 | 5850 | 21300 | 7950 | 26900 | 13600 | 20800 | 12100 | 16200 | 8390 | 3310 | 4410 |
| 4 | 4660 | 6070 | 18900 | 8390 | 25500 | 12200 | 19600 | 10800 | 18700 | 8370 | 3840 | 3720 |
| 5 | 6360 | 6010 | 18100 | 7880 | 23300 | 12200 | 19300 | 9310 | 17900 | 7010 | 4010 | 3610 |
| 6 | 8790 | 5840 | 15900 | 7160 | 22100 | 11800 | 19600 | 8190 | 16300 | 5380 | 4930 | 3250 |
| 7 | 13600 | 5720 | 15400 | 8420 | 20500 | 11400 | 22700 | 7290 | 13400 | 4720 | 4680 | 2520 |
| 8 | 17100 | 5730 | 13500 | 8850 | 18100 | 10900 | 26600 | 7810 | 12100 | 5210 | 3940 | 2830 |
| 9 | 17300 | 5650 | 12600 | 8850 | 17700 | 10600 | 30100 | 7150 | 9800 | 5010 | 3550 | 2650 |
| 10 | 19000 | 6210 | 11800 | 6880 | 26300 | 11400 | 36200 | 6790 | 7700 | 5120 | 3950 | 2140 |
| 11 | 20600 | 7190 | 11700 | 7070 | 52900 | 10700 | 42200 | 6750 | 6920 | 4570 | 2820 | 2610 |
| 12 | 20500 | 9510 | 14700 | 8010 | 48900 | 10000 | 42500 | 7060 | 6830 | 4230 | 3060 | 3300 |
| 13 | 19700 | 10100 | 19000 | 7410 | 45000 | 13100 | 42200 | 9630 | 6320 | 4010 | 3290 | 2300 |
| 14 | 17600 | 9650 | 22600 | 7150 | 42200 | 21400 | 39400 | 10400 | 5750 | 4190 | 2930 | 4300 |
| 15 | 12700 | 8660 | 21700 | 7250 | 47400 | 31600 | 36900 | 10900 | 4920 | 4020 | 3120 | 2630 |
| 16 | 9750 | 7490 | 21400 | 7540 | 55100 | 33600 | 45500 | 10600 | 5030 | 3850 | 2730 | 4060 |
| 17 | 9620 | 7200 | 29600 | 8190 | 52900 | 32400 | 55200 | 8700 | 4280 | 3880 | 3110 | 3170 |
| 18 | 7990 | 6910 | 49900 | 9300 | 48900 | 33000 | 54300 | 7880 | 4800 | 4010 | 2950 | 3330 |
| 19 | 9950 | 6980 | 45200 | 11200 | 46100 | 32600 | 49400 | 7030 | 5440 | 3780 | 2680 | 3500 |
| 20 | 13000 | 7180 | 43300 | 10400 | 39300 | 29800 | 42800 | 6070 | 4700 | 3600 | 2850 | 3810 |
| 21 | 11200 | 6940 | 39400 | 9450 | 33900 | 28500 | 36500 | 5260 | 4570 | 4140 | 2840 | 3790 |
| 22 | 9500 | 6880 | 33400 | 8500 | 28900 | 40800 | 33500 | 6910 | 6510 | 4060 | 3180 | 4120 |
| 23 | 8790 | 6620 | 28700 | 8950 | 25000 | 46100 | 33000 | 9000 | 10500 | 4200 | 3500 | 2880 |
| 24 | 7400 | 6200 | 21600 | 8090 | 20000 | 41400 | 32000 | 12100 | 11900 | 4900 | 3390 | 2900 |
| 25 | 6900 | 6170 | 17900 | 8650 | 19300 | 35600 | 31000 | 13500 | 12200 | 3790 | 3480 | 3590 |
| 26 | 6900 | 7010 | 14300 | 8170 | 17300 | 30600 | 28900 | 15100 | 11200 | 3620 | 3200 | 4800 |
| 27 | 7330 | 9590 | 11500 | 7860 | 19000 | 27900 | 26200 | 16500 | 8250 | 3900 | 3840 | 4220 |
| 28 | 7430 | 15600 | 13000 | 7290 | 18500 | 25400 | 22000 | 15900 | 6400 | 3830 | 4760 | 4170 |
| 29 | 7350 | 19800 | 10900 | 6510 | --- | 20700 | 18800 | 14600 | 5110 | 3610 | 4180 | 3820 |
| 30 | 7010 | 20600 | 9870 | 8240 | --- | 21100 | 16500 | 13700 | 4450 | 3490 | 3810 | 3420 |
| 31 | 6670 | --- | 9140 | 16700 | --- | 19800 | --- | 12000 | --- | 3420 | 4220 | --- |
| TOTAL | 331490 | 245760 | 660710 | 263860 | 885700 | 711900 | 968400 | 318230 | 271280 | 146880 | 108920 | 107110 |
| MEAN | 10690 | 8192 | 21310 | 8512 | 31630 | 22960 | 32280 | 10270 | 9043 | 4738 | 3514 | 3570 |
| MAX | 20600 | 20600 | 49900 | 16700 | 55100 | 46100 | 55200 | 16500 | 18700 | 8390 | 4930 | 6430 |
| MIN | 4660 | 5650 | 9140 | 6510 | 17300 | 10000 | 16500 | 5260 | 4280 | 3420 | 2680 | 2140 |
| CFSM | .94 | .72 | 1.87 | .75 | 2.77 | 2.01 | 2.83 | .90 | .79 | .42 | .31 | .31 |
| IN. | 1.08 | .80 | 2.15 | .86 | 2.89 | 2.32 | 3.16 | 1.04 | .88 | .48 | .36 | .35 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2001, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MEAN | 9705 | 16410 | 23820 | 24530 | 27360 | 38220 | 35560 | 22590 | 14540 | 8957 | 6611 | 6812 |
| 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 |

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03049500 ALLEGHENY RIVER AT NATRONA, PA--Continued

| SUMMARY STATISTICS | FOR 2000 CALENDAR YEAR | | FOR 2001 WATER YEAR | | WATER YEARS 1939 - 2001 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|-------------|
| ANNUAL TOTAL | 5846880 | | 5020240 | | | |
| ANNUAL MEAN | 15980 | | 13750 | | 19550 | |
| HIGHEST ANNUAL MEAN | | | | | 27810 | 1956 |
| LOWEST ANNUAL MEAN | | | | | 12680 | 1999 |
| HIGHEST DAILY MEAN | 68900 | Apr 9 | 55200 | Apr 17 | 206000 | Dec 31 1942 |
| LOWEST DAILY MEAN | 2930 | Jul 24 | 2140 | Sep 10 | 949 | Oct 26 1963 |
| ANNUAL SEVEN-DAY MINIMUM | 3260 | Sep 2 | 2620 | Sep 7 | 1030 | Oct 25 1963 |
| MAXIMUM PEAK FLOW | | | 58500 | Feb 11 | ^a 238000 | Dec 30 1942 |
| MAXIMUM PEAK STAGE | | | 15.50 | Feb 11 | ^b 27.46 | Dec 30 1942 |
| INSTANTANEOUS LOW FLOW | | | | | 985 | Oct 22 1963 |
| ANNUAL RUNOFF (CFSM) | 1.40 | | 1.21 | | 1.71 | |
| ANNUAL RUNOFF (INCHES) | 19.06 | | 16.37 | | 23.28 | |
| 10 PERCENT EXCEEDS | 33300 | | 32800 | | 44800 | |
| 50 PERCENT EXCEEDS | 11800 | | 8790 | | 13000 | |
| 90 PERCENT EXCEEDS | 5080 | | 3570 | | 3160 | |

a From rating curve extended above 172,000 ft³/s.
b Datum then in use.

