

## 03565442 OOSTANAULA CREEK AT HWY 30 NEAR ATHENS, TN

LOCATION.--Lat 35°25'58", long 84°35'09", McMinn County, Hydrologic Unit 06020002, on right bank 100 ft downstream from bridge on State Highway 30, 0.8 mi southeast of Courthouse in Athens, TN.

DRAINAGE AREA.--26.3 mi<sup>2</sup>.

PERIOD OF RECORD.--May 2003 to October 2004.

GAGE.--Data logger.

REMARKS.--Records good except for estimated daily discharges, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES PERIOD OF RECORD.--Maximum discharge unknown, maximum gage height 16.65 ft, May 6, 2003; minimum discharge 8.1 ft<sup>3</sup>/s, Sept. 15, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 813 ft<sup>3</sup>/s, Sept. 17, maximum gage height 8.09 ft; minimum discharge, 8.1 ft<sup>3</sup>/s, Sept. 15.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

| DAY   | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY    | JUN   | JUL   | AUG  | SEP  |
|-------|-----|-----|-----|-----|-----|-----|-----|--------|-------|-------|------|------|
| 1     | --- | --- | --- | --- | --- | --- | --- | 68     | 61    | 104   | 46   | 24   |
| 2     | --- | --- | --- | --- | --- | --- | --- | 69     | 58    | 265   | 44   | 24   |
| 3     | --- | --- | --- | --- | --- | --- | --- | 72     | 58    | 108   | 42   | 26   |
| 4     | --- | --- | --- | --- | --- | --- | --- | 63     | 71    | 78    | 40   | 34   |
| 5     | --- | --- | --- | --- | --- | --- | --- | 906    | 53    | 68    | 37   | 27   |
| 6     | --- | --- | --- | --- | --- | --- | --- | e3,430 | 50    | 70    | 41   | 28   |
| 7     | --- | --- | --- | --- | --- | --- | --- | 873    | 57    | 63    | 37   | 27   |
| 8     | --- | --- | --- | --- | --- | --- | --- | 504    | 55    | 59    | 33   | 26   |
| 9     | --- | --- | --- | --- | --- | --- | --- | 293    | 50    | 57    | 34   | 24   |
| 10    | --- | --- | --- | --- | --- | --- | --- | 209    | 47    | 70    | 32   | 24   |
| 11    | --- | --- | --- | --- | --- | --- | --- | 209    | 72    | 66    | 30   | 23   |
| 12    | --- | --- | --- | --- | --- | --- | --- | 150    | 69    | 52    | 31   | 23   |
| 13    | --- | --- | --- | --- | --- | --- | --- | 129    | 53    | 58    | 39   | 25   |
| 14    | --- | --- | --- | --- | --- | --- | --- | 115    | 48    | 65    | 32   | 28   |
| 15    | --- | --- | --- | --- | --- | --- | --- | 104    | 44    | 48    | 29   | 33   |
| 16    | --- | --- | --- | --- | --- | --- | --- | 144    | 47    | 45    | 30   | 27   |
| 17    | --- | --- | --- | --- | --- | --- | --- | 117    | 160   | 42    | 32   | 25   |
| 18    | --- | --- | --- | --- | --- | --- | --- | 142    | 82    | 40    | 38   | 30   |
| 19    | --- | --- | --- | --- | --- | --- | --- | 112    | 60    | 40    | 30   | 26   |
| 20    | --- | --- | --- | --- | --- | --- | --- | 112    | 52    | 38    | 29   | 27   |
| 21    | --- | --- | --- | --- | --- | --- | --- | 140    | 48    | 39    | 28   | 28   |
| 22    | --- | --- | --- | --- | --- | --- | --- | 252    | 45    | 51    | 27   | 68   |
| 23    | --- | --- | --- | --- | --- | --- | --- | 138    | 43    | 43    | 29   | 31   |
| 24    | --- | --- | --- | --- | --- | --- | --- | 117    | 41    | 38    | 27   | 21   |
| 25    | --- | --- | --- | --- | --- | --- | --- | 102    | 40    | 36    | 25   | 18   |
| 26    | --- | --- | --- | --- | --- | --- | --- | 92     | 38    | 37    | 24   | 18   |
| 27    | --- | --- | --- | --- | --- | --- | --- | 82     | 45    | 38    | 24   | 45   |
| 28    | --- | --- | --- | --- | --- | --- | --- | 75     | 38    | 40    | 23   | 36   |
| 29    | --- | --- | --- | --- | --- | --- | --- | 70     | 36    | 43    | 23   | 23   |
| 30    | --- | --- | --- | --- | --- | --- | --- | 67     | 44    | 38    | 25   | 22   |
| 31    | --- | --- | --- | --- | --- | --- | --- | 65     | ---   | 55    | 24   | ---  |
| TOTAL | --- | --- | --- | --- | --- | --- | --- | 9,021  | 1,665 | 1,894 | 985  | 841  |
| MEAN  | --- | --- | --- | --- | --- | --- | --- | 291    | 55.5  | 61.1  | 31.8 | 28.0 |
| MAX   | --- | --- | --- | --- | --- | --- | --- | 3,430  | 160   | 265   | 46   | 68   |
| MIN   | --- | --- | --- | --- | --- | --- | --- | 63     | 36    | 36    | 23   | 18   |
| CFSM  | --- | --- | --- | --- | --- | --- | --- | 11.1   | 2.11  | 2.32  | 1.21 | 1.07 |
| IN.   | --- | --- | --- | --- | --- | --- | --- | 12.76  | 2.36  | 2.68  | 1.39 | 1.19 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2003, BY WATER YEAR (WY)

|      |     |     |     |     |     |     |     |        |        |        |        |        |
|------|-----|-----|-----|-----|-----|-----|-----|--------|--------|--------|--------|--------|
| MEAN | --- | --- | --- | --- | --- | --- | --- | 291    | 55.5   | 61.1   | 31.8   | 28.0   |
| MAX  | --- | --- | --- | --- | --- | --- | --- | 291    | 55.5   | 61.1   | 31.8   | 28.0   |
| (WY) | --- | --- | --- | --- | --- | --- | --- | (2003) | (2003) | (2003) | (2003) | (2003) |
| MIN  | --- | --- | --- | --- | --- | --- | --- | 291    | 55.5   | 61.1   | 31.8   | 28.0   |
| (WY) | --- | --- | --- | --- | --- | --- | --- | (2003) | (2003) | (2003) | (2003) | (2003) |

e Estimated

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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     | 20   | 24   | 35    | 39    | 42    | 39    | 42    | 33   | 20   | 19   | 17   | 14      |
| 2     | 20   | 25   | 33    | 37    | 42    | 50    | 39    | 45   | 20   | 18   | 15   | 11      |
| 3     | 19   | 21   | 31    | 38    | 43    | 45    | 40    | 32   | 32   | 17   | 14   | 12      |
| 4     | 21   | 21   | 48    | 37    | 39    | 43    | 38    | 29   | 18   | 18   | 14   | 14      |
| 5     | 20   | 28   | 49    | 93    | 38    | 44    | 36    | 28   | 17   | 16   | 22   | 14      |
| 6     | 19   | 50   | 44    | 64    | 434   | 271   | 35    | 29   | 17   | 22   | 17   | 13      |
| 7     | 18   | 26   | 40    | 55    | 157   | 92    | 35    | 29   | 16   | 17   | 15   | 19      |
| 8     | 19   | 24   | 37    | 52    | 108   | 76    | 34    | 29   | 16   | 15   | 15   | 18      |
| 9     | 18   | 24   | 35    | 51    | 89    | 69    | 33    | 29   | 15   | 15   | 14   | 14      |
| 10    | 19   | 22   | 73    | 50    | 80    | 64    | 35    | 29   | 18   | 15   | 14   | 13      |
| 11    | 22   | 21   | 50    | 47    | 71    | 60    | 33    | 26   | 20   | 14   | 14   | 12      |
| 12    | 20   | 20   | 43    | 44    | 76    | 57    | 37    | 27   | 17   | 17   | 20   | 12      |
| 13    | 20   | 20   | 42    | 42    | 65    | 56    | 65    | 28   | 17   | 15   | 17   | 11      |
| 14    | 23   | 18   | 50    | 41    | 61    | 53    | 46    | 26   | 15   | 15   | 17   | 10      |
| 15    | 22   | 20   | 43    | 40    | 78    | 52    | 42    | 26   | 24   | 15   | 16   | 9.8     |
| 16    | 21   | 25   | 46    | 39    | 81    | 60    | 39    | 26   | 19   | 15   | 15   | 64      |
| 17    | 23   | 21   | 64    | 39    | 66    | 51    | 38    | 26   | 27   | 28   | 13   | 521     |
| 18    | 21   | 42   | 49    | 47    | 61    | 51    | 37    | 23   | 19   | 22   | 12   | 79      |
| 19    | 21   | 87   | 46    | 41    | 59    | 48    | 35    | 26   | 17   | 18   | 12   | 54      |
| 20    | 21   | 40   | 45    | 38    | 56    | 49    | 34    | 23   | 17   | 16   | 16   | 43      |
| 21    | 21   | 33   | 42    | 37    | 56    | 48    | 33    | 22   | 27   | 15   | 26   | 41      |
| 22    | 21   | 32   | 40    | 36    | 52    | 45    | 32    | 23   | 23   | 16   | 16   | 37      |
| 23    | 22   | 30   | 44    | 37    | 49    | 43    | 33    | 22   | 36   | 20   | 15   | 35      |
| 24    | 22   | 37   | 50    | 37    | 48    | 42    | 33    | 20   | 27   | 16   | 15   | 36      |
| 25    | 24   | 32   | 43    | 91    | 46    | 41    | 32    | 19   | 56   | 18   | 14   | 35      |
| 26    | 25   | 30   | 39    | 74    | 46    | 40    | 38    | 19   | 35   | 17   | 13   | 33      |
| 27    | 26   | 35   | 40    | 57    | 44    | 42    | 34    | 20   | 28   | 19   | 12   | 32      |
| 28    | 22   | 49   | 38    | 50    | 43    | 42    | 32    | 19   | 51   | 16   | 13   | 31      |
| 29    | 21   | 43   | 37    | 47    | 41    | 42    | 31    | 20   | 23   | 15   | 19   | 29      |
| 30    | 20   | 38   | 51    | 45    | ---   | 56    | 30    | 22   | 20   | 16   | 30   | 25      |
| 31    | 21   | ---  | 40    | 45    | ---   | 41    | ---   | 26   | ---  | 19   | 18   | ---     |
| TOTAL | 652  | 938  | 1,367 | 1,490 | 2,171 | 1,812 | 1,101 | 801  | 707  | 534  | 500  | 1,291.8 |
| MEAN  | 21.0 | 31.3 | 44.1  | 48.1  | 74.9  | 58.5  | 36.7  | 25.8 | 23.6 | 17.2 | 16.1 | 43.1    |
| MAX   | 26   | 87   | 73    | 93    | 434   | 271   | 65    | 45   | 56   | 28   | 30   | 521     |
| MIN   | 18   | 18   | 31    | 36    | 38    | 39    | 30    | 19   | 15   | 14   | 12   | 9.8     |
| CFSM  | 0.80 | 1.19 | 1.68  | 1.83  | 2.85  | 2.22  | 1.40  | 0.98 | 0.90 | 0.65 | 0.61 | 1.64    |
| IN.   | 0.92 | 1.33 | 1.93  | 2.11  | 3.07  | 2.56  | 1.56  | 1.13 | 1.00 | 0.76 | 0.71 | 1.83    |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2004, BY WATER YEAR (WY)

|      | 2003   | 2004   | 2004   | 2004   | 2004   | 2004   | 2004   | 2003   | 2003   | 2003   | 2003   | 2004   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 21.0   | 31.3   | 44.1   | 48.1   | 74.9   | 58.5   | 36.7   | 158    | 39.5   | 39.2   | 24.0   | 35.5   |
| MAX  | 21.0   | 31.3   | 44.1   | 48.1   | 74.9   | 58.5   | 36.7   | 291    | 55.5   | 61.1   | 31.8   | 43.1   |
| (WY) | (2004) | (2004) | (2004) | (2004) | (2004) | (2004) | (2004) | (2003) | (2003) | (2003) | (2003) | (2004) |
| MIN  | 21.0   | 31.3   | 44.1   | 48.1   | 74.9   | 58.5   | 36.7   | 25.8   | 23.6   | 17.2   | 16.1   | 28.0   |
| (WY) | (2004) | (2004) | (2004) | (2004) | (2004) | (2004) | (2004) | (2004) | (2004) | (2004) | (2004) | (2003) |

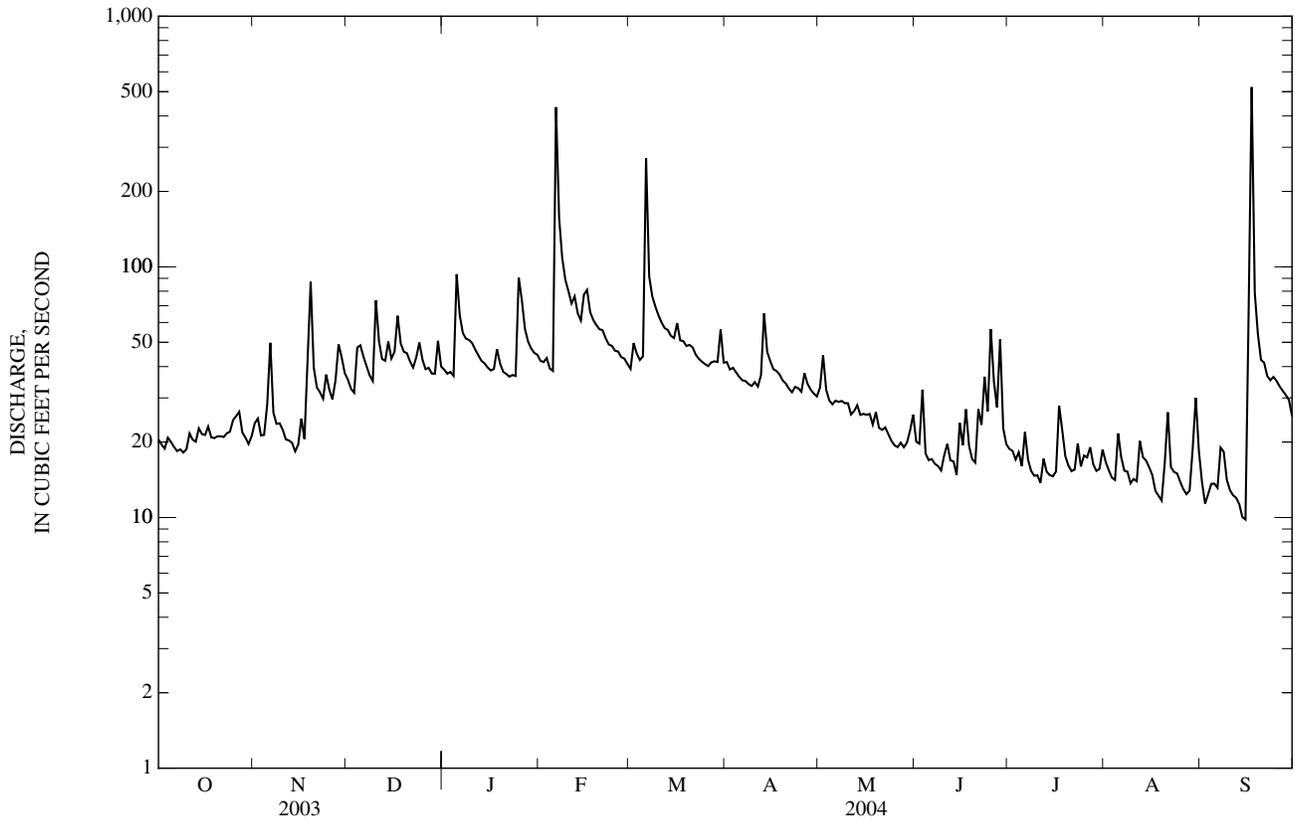
SUMMARY STATISTICS

FOR 2004 WATER YEAR

WATER YEARS 2003 - 2004

|                          |          |        |       |
|--------------------------|----------|--------|-------|
| ANNUAL TOTAL             | 13,364.8 |        |       |
| ANNUAL MEAN              | 36.5     |        | 36.5  |
| HIGHEST ANNUAL MEAN      |          |        | 36.5  |
| LOWEST ANNUAL MEAN       |          |        | 36.5  |
| HIGHEST DAILY MEAN       | 521      | Sep 17 | 3,430 |
| LOWEST DAILY MEAN        | 9.8      | Sep 15 | 9.8   |
| ANNUAL SEVEN-DAY MINIMUM | 12       | Sep 9  | 12    |
| MAXIMUM PEAK FLOW        | 813      | Sep 17 |       |
| MAXIMUM PEAK STAGE       | 8.09     | Sep 17 | 16.65 |
| INSTANTANEOUS LOW FLOW   | 8.1      | Sep 15 | 8.1   |
| ANNUAL RUNOFF (CFSM)     | 1.39     |        | 1.39  |
| ANNUAL RUNOFF (INCHES)   | 18.90    |        | 18.86 |
| 10 PERCENT EXCEEDS       | 56       |        | 56    |
| 50 PERCENT EXCEEDS       | 31       |        | 31    |
| 90 PERCENT EXCEEDS       | 15       |        | 15    |

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