

LOW-FLOW FREQUENCY
AND FLOW DURATION
OF TENNESSEE STREAMS



U. S. Geological Survey

OPEN-FILE REPORT 78-807

Prepared in cooperation with the Tennessee Department of Conservation Division of Water Resources

03604500 - BUFFALO RIVER NEAR LOBELVILLE, TN

LOCATION.--Lat 35°48'46", long 87°47'51", Perry County, on right bank 30 ft upstream from Standing Rock Bridge, 1.4 miles downstream from bridge on State Highway 13, 3 miles north of Lobelville, 13 miles downstream from Cane Creek, and at mile 17.7.

DRAINAGE AREA. -- 707 mi².

PERIOD OF RECORD. -- October 1927 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|-------|
| 170 | 180 | 183 | 204 | 234 | 270 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 324 | 380 | 457 | 576 | 760 | 1050 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 1490 | 2430 | 3720 | 6500 | 9300 | 12300 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|-----|------|-----|-----|
| | 227 | 185 | 1.68 | 155 | 142 |
| 3 | 229 | 187 | 169 | 156 | 143 |
| 7 | 235 | 191 | 172 | 158 | 144 |
| 14 | 246 | 200 | 180 | 165 | 151 |
| 30 | 270 | 218 | 194 | 177 | 159 |
| 60 | 298 | 240 | 215 | 198 | 180 |
| 120 | 344 | 281 | 258 | 244 | 230 |
| 183 | 401 | 318 | 289 | 271 | 254 |

03604800 - BIRDSONG CREEK NEAR HOLLADAY, TN

LOCATION.--Lat 35°53'56", long 88°07'37", Benton County, on left bank half a mile downstream from Wolf Creek and 2 miles northeast of Hollyday.

DRAINAGE AREA. -- 44.9 mi²

PERIOD OF RECORD. -- February 1940 to September 1967.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 0.0 | 0.0 | 0.0 | 0.05 | 0.6 | 1.27 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 3.13 | 5.35 | 8.34 | 14.2 | 24.2 | 39.3 |
| 20 | 10 | 5 | 2 | 1 | 0.5 |
| 60.6 | 108 | 234 | 600 | 960 | 1480 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|------------------------------|------|------|------|------|----|
| 1 | 0.46 | 0.01 | 0.0 | 0.0 | |
| 3 | 0.48 | 0.01 | 0.0 | 0.0 | |
| 7 | 0.58 | 0.01 | 0.0 | 0.0 | |
| 14 | 0.63 | 0.04 | 0.0 | 0.0 | |
| 30 | 1.25 | 0.29 | 0.12 | 0.05 | |
| 60 | 2.30 | 0.88 | 0.52 | 0.33 | |
| 120 | 4.36 | 2.04 | 1.44 | 1.11 | |
| 183 | 7.98 | 3.80 | 2.67 | 2.03 | |

03605555 - TRACE CREEK ABOVE DENVER, TN

LOCATION.-- Lat 36°03'08", long 87°54'27", Humphreys County, on left bank at bridge on U. S. Highway 70, 1.0 mile east of Denver, 3.9 miles northeast of New Johnsonville, and at mile 4.2.

DRAINAGE AREA. -- 31.9 mi².

PERIOD OF RECORD. -- October 1963 to November 1972, December 1972 to September 1975.
REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 8.22 | 8.69 | 8.81 | 9.85 | 11.5 | 13.0 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 15.5 | 18.4 | 22.4 | 30.4 | 43.3 | 59.2 |
| 20 | 10 | 5 | 2 | 1 | 0.5 |
| 86.3 | 151 | 247 | 498 | 940 | 1290 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|------------------------------|------|------|------|------|----|
| | 9.74 | 8.08 | 7.31 | 6.73 | |
| 3 | 10.0 | 8.34 | 7.55 | 6.94 | |
| 7 | 10.3 | 8.70 | 8.02 | 7.53 | |
| 14 | 10.8 | 9.03 | 8.28 | 7.74 | |
| 30 | 12.4 | 10.6 | 9.76 | 9.13 | |
| 60 | 14.3 | 11.6 | 10.4 | 9.53 | |
| 120 | 18.6 | 13.6 | 11.7 | 10.3 | |
| 183 | 22.5 | 16.8 | 14.8 | 13.5 | |

03606500 - BIG SANDY RIVER AT BRUCETON, TN

LOCATION.-- Lat 36°02'19", long 88°13'42", Carroll County, on right bank on downstream end of abutment of county bridge, 700 ft downstream from bridge on U.S. Highway 70, 0.6 mile upstream from Cherry Creek, 0.9 mile east of Bruceton, and at mile 31.6.

DRAINAGE AREA. -- 205 mi².

PERIOD OF RECORD. -- August 1929 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 32.9 | 35.0 | 35.3 | 38.9 | 43.9 | 51.0 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 63.5 | 77.6 | 94.5 | 117 | 147 | 195 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 294 | 647 | 1190 | 1900 | 2690 | 3400 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|------|
| 1 | 44.6 | 36.6 | 33.9 | 32.2 | 30.8 |
| 3 | 45.4 | 37.3 | 34.6 | 32.9 | 31.4 |
| 7 | 46.4 | 38.2 | 35.5 | 33.8 | 32.4 |
| 14 | 48.2 | 39.2 | 36.3 | 34.5 | 33.1 |
| 30 | 52.8 | 42.0 | 38.4 | 36.2 | 34.3 |
| 60 | 63.8 | 47.6 | 42.0 | 38.3 | 35.0 |
| 120 | 86.7 | 60.0 | 51.2 | 45.7 | 40.8 |
| 183 | 109 | 73.9 | 61.9 | 54.0 | 46.9 |

03607000 - BIG SANDY RIVER AT BIG SANDY, TN

LOCATION.--Lat 36°13'50", long 88°06'16", Benton County, on left bank of former drainage canal, 700 ft upstream from bridges of relocated State Highway 69 and Louisville & Nashville Railroad, and 1 mile west of Big Sandy.

DRAINAGE AREA. -- 379 mi².

PERIOD OF RECORD. -- March 1935 to September 1944.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 38.5 | 40.7 | 41.3 | 43.9 | 48.2 | 56.3 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 73.1 | 91.2 | 116 | 143 | 180 | 247 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 375 | 877 | 1680 | 2500 | 3400 | 5300 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|----|----|----|------|----|
| ı | 66 | 51 | 45 | 43 | |
| 3 | 67 | 53 | 47 | . 44 | |
| 7 | 69 | 55 | 49 | 45 | |
| 14 | | | | | |
| 30 | | | | | |
| 60 | | | | | |
| 120 | | | | | |
| 183 | | | | | |

07024300 - BEAVER CREEK AT HUNTINGDON, TN

LOCATION.-- Lat 35°59'56", long 88°26'01", Carroll County, on left bank on downstream end of pier of bridge on U.S. Highway 70, 0.3 mile west of Huntingdon, 0.6 mile downstream from Brier Creek, and at mile 5.6.

DRAINAGE AREA . -- 55.5 mi².

PERIOD OF RECORD. -- October 1962 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 21.0 | 21.7 | 22.0 | 23.1 | 24.0 | 25.5 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 28.7 | 32.3 | 37.0 | 42.9 | 52.6 | 66.4 |
| 20 | 10 | 5 | 2 | 1 | 0.5 |
| 91.9 | 207 | 396 | 920 | 1300 | 2000 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|----|
| 1 | 22,9 | 21.3 | 20.5 | 18.9 | |
| 3 | 23.1 | 21.3 | 20.6 | 20.2 | |
| 7 | 23.8 | 21.9 | 21.2 | 20.8 | |
| 14 | 25.2 | 22.6 | 21.6 | 21.0 | |
| 30 | 26.2 | 23.5 | 22.7 | 22.3 | |
| 60 | 30.3 | 25.3 | 23.4 | 22.1 | |
| 120 | 42.4 | 29.5 | 25.1 | 22.3 | |
| 183 | 49.3 | 32.9 | 27.2 | 23.5 | |

LOCATION.--Lat 36°07'05", long 88°48'39", Weakley County, on left bank 75 ft downstream from bridge on U.S. Highway 45E, 1.1 miles downstream from Mosley Branch, 2.5 miles south of Greenfield, and 9.7 miles upstream from confluence with Middle Fork.

DRAINAGE AREA. -- 383 mi².

PERIOD OF RECORD. -- August 1925 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|----------|------|
| 75.2 | 78.2 | 78.9 | 87.0 | 93.1 | 102 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 118 | 138 | 164 | 205 | 278 | 413 |
| 20 | 10 | 5 | 2 | <u> </u> | 0.5 |
| 711 | 1450 | 2280 | 3690 | 5000 | 6710 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|------|
| 1 | 92.9 | 80.8 | 76.3 | 73.3 | 70.6 |
| 3 | 93.8 | 81.5 | 77.0 | 74.0 | 71.4 |
| 7 | 96.2 | 83.6 | 79.1 | 76.1 | 73.5 |
| 14 | 99.0 | 85.7 | 81.3 | 78.6 | 76.3 |
| 30 | 107 | 91.2 | 86.3 | 83.4 | 81.0 |
| 60 | 122 | 97.9 | 90.3 | 85.7 | 81.9 |
| 120 | 152 | 112 | 100 | 92.4 | 86.0 |
| 183 | 192 | 133 | 113 | 100 | 89.1 |

07025000 - RUTHERFORD FORK OBION RIVER NEAR BRADFORD, TN

LOCATION.-- Lat 36°03'10", long 88°52'42", Gibson County on left bank 10 ft downstream from bridge on State Highway 54, 2.0 miles upstream from Camp Creek, and 4.0 miles southwest of Bradford, and at mile 17.5.

DRAINAGE AREA. -- 203 mi².

PERIOD OF RECORD. -- August 1929 to September 1957.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 14.4 | 15.6 | 15.9 | 18.1 | 20.3 | 23.3 |
| 80 | 70 | _60 | 50 | 40 | 30 |
| 28.0 | 33.6 | 42.3 | 55.1 | 75.8 | 113 |
| 20 | 10 | _5 | 2 | 1 | 0.5 |
| 195 | 527 | 1200 | 2460 | 3360 | 4230 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|------------------------------|------|------|------|------|------|
| 11 | 19.7 | 15.8 | 14.2 | 13.1 | 12.0 |
| 3 | 20.0 | 16.1 | 14.6 | 13.5 | 12.5 |
| 7 | 20.7 | 17.0 | 15.7 | 14.8 | 14.1 |
| 14 | 22.0 | 17.9 | 16.4 | 15.5 | 14.6 |
| 30 | 24.1 | 18.9 | 17.1 | 15.9 | 14.8 |
| 60 | 30.8 | 22.8 | 20.2 | 18.7 | 17.4 |
| 120 | 45.0 | 30.5 | 26.0 | 23.4 | 21.1 |
| 183 | 60.7 | 38.7 | 31.6 | 27.1 | 23,2 |

07025500 - NORTH FORK OBION RIVER NEAR UNION CITY, TN

LOCATION. Lat 36°23'59", long 88°59'43", Obion County, on downstream side of right pier of bridge on State Highway 22, 0.3 mile downstream from Harris Fork Creek, 0.8 mile southeast of Gibbs, 3.9 miles southeast of Union City, 4.5 miles upstream from Hoosier Creek, and 10 miles upstream from confluence with South Fork.

DRAINAGE AREA. -- 480 mi².

PERIOD OF RECORD. -- August 1929 to December 1970.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99,5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 86.1 | 87.9 | 88.3 | 92.8 | 102 | 109 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 125 | 140 | 159 | 185 | 228 | 310 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 514 | 1410 | 2850 | 5150 | 6900 | 8900 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|------------------------------|-----|------|------|------|-------------------|
| <u> </u> | 103 | 92.1 | 88.0 | 85.0 | 82 ₋ 2 |
| 3 | 103 | 92.7 | 88.6 | 85.8 | 83.3 |
| 7 | 104 | 93.9 | 90.0 | 87.4 | 85.0 |
| 14 | 108 | 96.2 | 92.0 | 89.2 | 86.7 |
| 30 | 113 | 99.8 | 94.8 | 91.6 | 88.6 |
| 60 | 126 | 106 | 100 | 97.1 | 94.5 |
| 120 | 148 | 123 | 118 | 115 | 114 |
| 183 | 186 | 141 | 128 | 120 | 114 |

07026000 - OBION RIVER AT OBION, TN

LOCATION. Lat 36°15'04", long 89°11'33", Obion County, near left bank on downstream end of pier of bridge on U.S. Highway 51, 0.5 mile upstream from Richland Creek, 0.6 mile south of Obion, and 14.5 miles downstream from North Fork.

DRAINAGE AREA. -- 1,852 mi².

PERIOD OF RECORD. -- August 1929 to September 1958 , October 1966 to September 1975. REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|-------|-------|-------|-------|
| 235 | 256 | 262 | 286 | 315 | 366 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 452 | 559 | 704 | 936 | 1430 | 2180 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 3240 | 6700 | 11300 | 17700 | 22800 | 30100 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|-----|-----|------|----|
| | 325 | 272 | 248 | 227 | |
| 3 | 336 | 281 | 258 | 241 | |
| 7 | 343 | 286 | 263 | 246 | |
| 14 | 364 | 297 | 270 | 250 | |
| 30 | 396 | 310 | 277 | 255 | |
| 60 | 464 | 345 | 304 | _278 | |
| 120 | 601 | 421 | 366 | 333 | |
| 183 | 785 | 505 | 414 | 357 | |

07026500 - REELFOOT CREEK NEAR SAMBURG, TN

LOCATION. -- Lat 36°26'32", long 89°17'47", Obion County, on right bank at downstream side of bridge on State Highway 22, 0.5 mile downstream from confluence of North Reelfoot and South Reelfoot Creeks, 5 miles northeast of Samburg, 14 miles west of Union City, and at mile 4.0.

DRAINAGE AREA. -- 110 mi².

PERIOD OF RECORD. -- January 1951 to September 1972.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99,5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.02 | 0.43 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 1.05 | 2.12 | 4.14 | 8,89 | 19.2 | 36.8 |
| 20 | 10 | 5 | 2 | 1 | 0,5 |
| 71.7 | 236 | 626 | 1420 | 2120 | 2800 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|----|
| 1 | 0.07 | 0.01 | 0.0 | 0.0 | |
| 3 | 0.11 | 0.03 | 0.01 | 0.0 | |
| 7 | 0.17 | 0.04 | 0.02 | 0.01 | |
| 14 - | 0.20 | 0.07 | 0.04 | 0.02 | |
| 30 | 0.65 | 0.14 | 0.04 | 0.02 | |
| 60 | 2.77 | 0.57 | 0.06 | 0.03 | |
| 120 | 12.2 | 3.31 | 1.44 | 0.67 | |
| 183 | 23.0 | 9.25 | 5.70 | 3.80 | |

LOCATION.-- Lat 35°35'38", long 88°48'52", Madison County, on right bank 20 ft downstream from bridge on U.S. Highway 45, 0.6 mile downstream from Meridan Creek, and 1.4 miles south of the post office in Jackson.

DRAINAGE AREA. -- 495 mi².

PERIOD OF RECORD. July 1929 to September 1973.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99,5 | 99.1 | 99 | 98 | 95 | 90 |
|-------|------|------|------|------|------|
| 77.5 | 84.0 | 84.4 | 88.6 | 101 | 115 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 141 | 172 | 210 | 267 | 358 | 506 |
| 20 | 10 | 5 | 2 | 1 | 0.5 |
| . 800 | 1780 | 3090 | 4600 | 5820 | 7640 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|------|
| ı | 96.9 | 82.8 | 76.8 | 72.3 | 67.8 |
| 3 | 98.7 | 84.2 | 77.8 | 73.2 | 68.4 |
| 7 | 102 | 87.0 | 81.0 | 76.6 | 72.3 |
| 14 | 107 | 90.1 | 83.6 | 79.0 | 74.6 |
| 30 | 120 | 98.0 | 89.2 | 83.0 | 77.0 |
| 60 | 154 | 117 | 102 | 91.1 | 80.8 |
| 120 | 200 | 146 | 125 | 110 | 96.6 |
| 183 | 236 | 168 | 143 | 126 | 111 |

07028000 - SOUTH FORK FORKED DEER RIVER AT CHESTNUT BLUFF, TN

LOCATION.-- Lat 35°51'43", long 89°20'52", Crockett County, on left bank 20 ft downstream from county highway bridge, 0.8 mile west of Chestnut Bluff, 1.1 miles upstream from Halls Creek, 1.2 miles downstream from Black Creek, 2.9 miles east of Halls, 3.1 miles downstream from bridge on State Highway 88, and 16 miles upstream from confluence with North Fork.

DRAINAGE AREA.-- 1003 mi² (approximately), includes that of Halls Creek.

PERIOD OF RECORD. -- July 1929 to September 1957.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| • = | | | | | |
|------|------|------|------|-------|-------|
| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
| 120 | 129 | 130 | 143 | 163 | 191 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 242 | 294 | 366 | 484 | 696 | 1170 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 2100 | 3900 | 5610 | 7950 | 10600 | 13000 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|------|-----|-----|------|
| 1 | 164 | 131 | 118 | 108 | 98.7 |
| 3 | 165 | 133 | 121 | 112 | 103 |
| 7 | 169 | 137 | 125 | 116 | 108 |
| 14 | 175 | 143 | 131 | 122 | 114 |
| 30 | 195 | 1.55 | 140 | 130 | 121 |
| 60 | 247 | 182 | 158 | 143 | 128 |
| 120 | 339 | 240 | 204 | 179 | 157 |
| 183 | 398 | 280 | 239 | 213 | 189 |

07028500 - NORTH FORK FORKED DEER RIVER AT TRENTON, TN

LOCATION. -- Lat 35°58'49", long 88°55'35", Gibson County, on downstream side of bank pier of bridge on State Highways 77 and 104, 0.8 mile east of Trenton, 1.0 mile downstream from Thompson Levee Creek, 1.6 miles upstream from Cain Creek, and 16.5 miles upstream from Middle Fork.

DRAINAGE AREA. -- 73.4 mi².

PERIOD OF RECORD. -- January 1951 to September 1971

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 6.87 | 7.54 | 7.72 | 8.80 | 10.4 | 12.3 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 13.9 | 15.8 | 17.8 | 20.8 | 25.7 | 36.5 |
| 20 | 10 | 5 | 2 | 1 | 0.5 |
| 64.4 | 183 | 459 | 1030 | 1570 | 1990 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|----|
| l . | 11.0 | 8.42 | 7.12 | 6.11 | |
| 3 | 11.1 | 8.54 | 7.25 | 6.25 | |
| 7 | 11.1 | 8.70 | 7.46 | 6.49 | |
| 14 | 11.3 | 8.96 | 7.80 | 6.89 | |
| 30 | 11.7 | 9.39 | 8.30 | 7.45 | |
| 60 | 13.7 | 11.3 | 10.7 | 10.3 | |
| 120 | 19.9 | 14.2 | 12.4 | 11.4 | |
| 183 | 27.4 | 18.3 | 15.3 | 13.4 | |

07029000 - MIDDLE FORK FORKED DEER RIVER NEAR ALAMO, TN

LOCATION. -- Lat 35°51'100", long 89°04'00", Crockett County, on right bank 30 ft downstream from bridge on State Highway 54, 3 miles upstream from Buck Creek, 5 miles north of Alamo, and 13 miles upstream from mouth.

DRAINAGE AREA. -- 369 mi².

PERIOD OF RECORD. -- August 1929 to September 1973.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|-------|
| 73.6 | 78.5 | 79.7 | 82.5 | 87.9 | 97.00 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 110 | 125 | 142 | 168 | 208 | 280 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 460 | 1170 | 2380 | 4490 | 5750 | 7000 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|------|
| | 89.3 | 79.2 | 75.2 | 72.5 | 69.8 |
| 3 | 90.2 | 79.9 | 75.7 | 72.8 | 69.9 |
| 7 | 91.7 | 81.3 | 77.0 | 74.0 | 71.2 |
| 14 | 94.3 | 83.1 | 78.7 | 75.6 | 72.6 |
| 30 | 99.6 | 86.7 | 82.2 | 79.4 | 76.9 |
| 60 | 115 | 94.6 | 87.5 | 82.8 | 78.7 |
| 120 | 146 | 113 | 102 | 95.1 | 89.2 |
| 183 | 172 | 126 | 1111 | 102 | 94.3 |

07029100 - NORTH FORK FORKED DEER RIVER AT DYERSBURG, TN

LOCATION.-- Lat 36⁰01'49", long 89⁰23'13", Dyer County, attached to platform handrail of electric powerplant gatehouse, near downstream side of bridge on U. S. Highway 51 at Dyersburg, and at mile 6.4.

DRAINAGE AREA. -- 867 mi².

PERIOD OF RECORD. -- January 1948 to December 1969.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|-------|-------|
| 98.6 | 101 | 102 | 109 | 125 | 144 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 184 | 245 | 330_ | 482 | 764 | 1180 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 1910 | 3510 | 5160 | 7770 | 10200 | 12500 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|------------------------------|-----|------|------|------|----|
| 1 | 117 | 92.0 | 80.5 | 71.8 | |
| 3 | 118 | 94.4 | 84.5 | 77.2 | |
| 7 | 122 | 100 | 91.2 | 84.9 | |
| 14 | 130 | 106 | 96.8 | 90.6 | |
| 30 | 146 | 116 | 106 | 99.1 | |
| 60 | 193 | 142 | 124 | 112 | |
| 120 | 251 | 170 | 147 | 134 | |
| 183 | 344 | 214 | 175 | 152 | |

07029380 - CYPRESS CREEK NEAR RAMER, TN

LOCATION.-- Lat 35°03'58", long 88°39'18", McNairy County, at bridge on State Highway 57, 0.6 mile upstream from Muddy Creek and 2 miles west of Ramer.

DRAINAGE AREA. -- 94.8 mi².

PERIOD OF RECORD. -- October 1940 to December 1958, January 1964 to December 1969.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 6.10 | 7.66 | 7.79 | 9.45 | 13.0 | 16.9 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 25.2 | 33.9 | 45.0 | 61.1 | 83.8 | 126 |
| 20 | 10 | 5 | 2 | 1 | 0.5 |
| 184 | 314 | 620 | 1240 | 1600 | 2010 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|----|
| l | 17.2 | 8.86 | 6.57 | 5.25 | |
| 3 | 17.7 | 9.26 | 6.91 | 5.55 | |
| 7 | 18.4 | 9.55 | 7.15 | 5.77 | |
| 14 | 19.9 | 10.7 | 8.13 | 6.67 | |
| 30 | 22.9 | 12.1 | 9.14 | 7.40 | |
| 60 | 27.8 | 15.1 | 11.4 | 9.20 | |
| 120 | 37.2 | 19.2 | 13.9 | 10.7 | |
| 183 | 45.7 | 24.0 | 17.5 | 13.6 | |

07029400 - HATCHIE RIVER AT POCAHONTAS, TN

LOCATION.-- Lat 35°03'24", long 88°48'05", Hardeman County, at bridge on State Highway 57, 0.5 mile northeast of Pocahontas, 1.7 miles downstream from Tuscumbia River, and at mile 176.

DRAINAGE AREA. -- 837 mi².

PERIOD OF RECORD. -- November 1940 to December 1958, January 1964 to December 1969.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|-------|-------|
| 56.8 | 59.3 | 60.0 | 66.8 | 88.4 | 115 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 165 | 226 | 320 | 473 | 714 | 1240 |
| 20 | 10 | 5 | 2 | 1 | 0.5 |
| 2130 | 3440 | 5530 | 8430 | 11100 | 15000 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|------|------|------|------|----|
| 1 | 82.2 | 59.8 | 49.9 | 42.5 | |
| 3 | 84.1 | 61.5 | 51.6 | 44.4 | |
| 7 | 87.4 | 65.4 | 56.1 | 49.3 | |
| 14 | 95.0 | 70.5 | 60.6 | 53.5 | |
| 30 | 121 | 88.9 | 76.0 | 66.8 | |
| 60 | 173 | 119 | 97.6 | 83.1 | |
| 120 | 244 | 163 | 133 | 112 | |
| 183 | 320 | 216 | 179 | 154 | |

07029500 - HATCHIE RIVER AT BOLIVAR, TN

LOCATION.--Lat 35°16'40", long 88°58'30", Hardeman County, on upstream end of left bank pier of bridge on State Highway 18, 250 ft upstream from Illinois Central Railroad bridge, 2,000 ft downstream from Spring Creek, and 1.5 miles northeast of Bolivar.

DRAINAGE AREA. -- 1,480 mi².

PERIOD OF RECORD. -- August 1929 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|-------|-------|-------|
| 126 | 140 | 141 | 155 | 192 | 242 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 349 | 490 | 690 | 1000 | 1530 | 2450 |
| 20 | 10 | 5 | 2 | [| 0.5 |
| 3790 | 6010 | 8410 | 12200 | 15700 | 20000 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|-----|-----|-----|------|
| 1 | 175 | 134 | 119 | 109 | 98.9 |
| 3 | 177 | 136 | 121 | 110 | 100 |
| 7 | 185 | 141 | 124 | 113 | 103 |
| 14 | 200 | 151 | 134 | 124 | 114 |
| 30 | 246 | 181 | 158 | 143 | 129 |
| 60 | 324 | 224 | 188 | 163 | 141 |
| 120 | 452 | 315 | 269 | 239 | 213 |
| 183 | 597 | 410 | 345 | 303 | 265 |

07030000 - HATCHIE RIVER NEAR STANTON, TN

LOCATION.-- Lat 35°31'22", long 89°20'57", Haywood County, near right bank on downstream end of pier of bridge on U. S. Highways 70 and 79, 2.9 miles downstream from Louisville and Nashville Railroad bridge, 4.6 miles northeast of Stanton, and 7 miles upstream from Big Muddy Creek.

DRAINAGE AREA. -- 1,940 mi² (approximately).

PERIOD OF RECORD. -- August 1929 to September 1958.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99,5 | 99.1 | 99 | 98 | 95 | 90 |
|------|-------|-------|-------|-------|-------|
| 262 | 272 | 277 | 300 | 342 | 410 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 558 | . 745 | 1010 | 1450 | 2130 | 3080 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 4390 | 7410 | 10200 | 14600 | 19000 | 24600 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|-----|-----|-----|-----|
| l | 339 | 278 | 254 | 237 | 221 |
| 3 | 341 | 279 | 255 | 238 | 222 |
| 7 | 348 | 284 | 258 | 241 | 224 |
| 14 | 364 | 294 | 268 | 250 | 233 |
| 30 | 413 | 323 | 288 | 264 | 242 |
| 60 | 485 | 362 | 318 | 289 | 262 |
| 120 | 639 | 468 | 414 | 381 | 354 |
| 183 | 834 | 592 | 511 | 459 | 414 |

07030240 - LOOSAHATCHIE RIVER NEAR ARLINGTON, TN

LOCATION.-- Lat 35°18'37", long 89°38'23", Shelby County on left bank 20 ft downstream from bridge on U.S. Highways 70 and 79, 1.5 miles upstream from Beaver Creek, 1.5 miles northeast of Arlington, and at mile 30.4

DRAINAGE AREA. -- 262 mi².

PERIOD OF RECORD. -- October 1969 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99,5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 65.7 | 67.2 | 67.4 | 68.7 | 73.0 | 78.5 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 84.9 | 91.9 | 101 | 110 | 135 | 173 |
| 20 | 10 | 5 | 2 | l l | 0.5 |
| 257 | 740 | 1860 | 3590 | 4800 | 7380 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|----|----|----|----|----|
| | 70 | 66 | 68 | * | |
| 3 | 72 | 71 | 70 | * | |
| 7 | 74 | 73 | 72 | * | |
| 14 | | | | | |
| 30 | | | | | |
| 60 | | | | | |
| 120 | | | | | |
| 183 | | | | | |
| | _ | | | | |

^{*} Figures cannot be determined from available data.

07030280 - LOOSAHATCHIE RIVER AT BRUNSWICK, TN

LOCATION.-- Lat 35°16'53", long 89°45'56", Shelby County, on upstream side of new highway bridge 1 mile north of Brunswick and at mile 26.8.

DRAINAGE AREA. -- 505 mi².

PERIOD OF RECORD. -- February 1939 to June 1950, August 1950 to September 1969.
REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|-------|
| 52.0 | 56.7 | 57.4 | 64.8 | 73.5 | 84.0 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 95.6 | 106 | 117 | 135 | 164 | 227 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 400 | 1440 | 4210 | 7500 | 9500 | 12000 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|------------------------------|------|------|------|------|----|
| | 76.7 | 63.0 | 55.7 | 49.7 | |
| 3 | 78.7 | 64.0 | 56.2 | 49.8 | |
| 7 | 81.3 | 65.8 | 57.3 | 50.4 | |
| 14 | 85.2 | 69.1 | 60.6 | 53.7 | |
| 30 | 90.2 | 74.0 | 66.2 | 60.1 | |
| 60 | 101 | 85.1 | 80.0 | 76.8 | |
| 120 | 130 | 103 | 94.2 | 88.1 | |
| 183 | 177 | 124 | 105 | 93.1 | |

07030500 - WOLF RIVER AT ROSSVILLE, TN

LOCATION.-- Lat 35°03'15", long 89°32'30", Fayette County, on left bank 100 ft downstream from new county highway bridge, 0.4 mile upstream from Hurricane Creek, 0.5 mile north of Rossville, 3.5 miles downstream from Grissum Creek, and at mile 60.

DRAINAGE AREA. -- 503 mi².

PERIOD OF RECORD. -- August 1929 to January 1972.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|------|
| 116 | 122 | 123 | 132 | 147 | 164 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 189 | 214 | 246 | 289 | 354 | 470 |
| 20 | 10 | 5 | 2 | l | 0.5 |
| 708 | 1340 | 2300 | 4350 | 6400 | 8040 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|-----|-----|-------|-----|
| | 150 | 131 | 121 | 113 | 104 |
| 3 | 151 | 132 | 122 | 114 | 106 |
| 7 | 154 | 134 | 124 | _ 116 | 107 |
| 14 | 158 | 137 | 126 | 118 | 109 |
| 30 | 169 | 145 | 133 | 125 | 115 |
| 60 | 184 | 154 | 141 | 132 | 123 |
| 120 | 218 | 179 | 164 | 154 | 144 |
| 183 | 258 | 205 | 185 | 172 | 160 |

07031650 - WOLF RIVER NEAR GERMANTOWN, TN

LOCATION.—Lat 35°06'59", long 89°48'05", Shelby County, on left bank at bridge on Germantown Road, 2.1 miles north of Germantown, 3.6 miles downstream from Grays Creek, 6.4 miles upstream from Fletcher Creek, and at mile 18.9.

DRAINAGE AREA. -- 699 mi².

PERIOD OF RECORD. -- October 1969 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99,5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|-------|
| 199 | 201 | 201 | 206 | 223 | 245 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 305 | 345 | 403 | 491 | 621 | 828 |
| 20 | 10 | 5 | 2 | | 0.5 |
| 1260 | 2220 | 3570 | 5530 | 8130 | 12000 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|-----|----------|-----|----|
| | 172 | 150 | 138 | 122 | |
| 3 | 175 | 152 | 139 | 124 | |
| 7 | 180 | 155 | 140 | 130 | |
| 14 | | | <u> </u> | | |
| 30 | | | | | |
| 60 | | | | | |
| 120 | | | | | |
| 183 | | | | | |

07031700 - WOLF RIVER AT RALEIGH, TN

LOCATION.-- Lat 35°12'08", long 89°55'24", Shelby County, on downstream side of Austin Peay Highway bridge at Raleigh and at mile 16.9.

DRAINAGE AREA. -- 770 mi².

PERIOD OF RECORD. -- June 1936 to June 1963, October 1963 to December 1969.
REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|------|-------|
| 154 | 168 | 173 | 176 | 193 | 217 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 253 | 287 | 337 | 405 | 510 | 724 |
| 20 | 10 | 5 | 2 | ı | 0.5 |
| 1300 | 2480 | 3980 | 6620 | 8730 | 11000 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|-----|-----|-----|----|
| l | 192 | 156 | 138 | 123 | |
| 3 | 194 | 164 | 149 | 138 | |
| 7 | 197 | 172 | 161 | 152 | |
| 14 | 205 | 180 | 168 | 160 | |
| 30 | 225 | 193 | 177 | 165 | |
| 60 | 246 | 206 | 188 | 175 | |
| 120 | 293 | 241 | 220 | 207 | |
| 183 | 351 | 272 | 243 | 224 | |

07032200 - NONCONNAH CREEK NEAR GERMANTOWN, TN

LOCATION. -- Lat 35°02'59", long 89°49'08", Shelby County, on left bank at downstream side of bridge on Winchester Road, 2.6 miles south of Germantown, and 17.3 miles upstream from mouth.

DRAINAGE AREA. -- 68.2 mi².

PERIOD OF RECORD. -- October 1969 to September 1975.

REMARKS:

FLOW DURATION

FLOW IN CUBIC FEET PER SECOND, WHICH WAS EQUALED OR EXCEEDED FOR PERCENTAGE OF TIME INDICATED.

| 99.5 | 99.1 | 99 | 98 | 95 | 90 |
|------|------|------|------|-------|------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.02 | 0.08 |
| 80 | 70 | 60 | 50 | 40 | 30 |
| 0.36 | 0.90 | 2.21 | 4.52 | 9.25 | 19.3 |
| 20 | 10 | 5 | 2 | I | 0.5 |
| 52.2 | 237 | 611 | 1220 | 1870_ | 2590 |

MAGNITUDE AND FREQUENCY

| PERIOD (CONSECUTIVE DAYS) | 2 | 5 | 10 | 20 | 50 |
|---------------------------|-----|-----|-----|-----|----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 14 | | | | | |
| 30 | | | | | |
| 60 | | | | | |
| 120 | | | | | |
| 183 | | | | | |