

U. S. GEOLOGICAL SURVEY  
ANNUAL PEAK FLOW FREQUENCY ANALYSIS  
Following Bulletin 17-B Guidelines  
Program peakfq  
(Version 4.0, December, 2000)

Station - 05401800 YELLOW RIVER TRIBUTARY NEAR PITTSVILLE, WI  
2002 MAR 13 09:03:06

I N P U T      D A T A      S U M M A R Y

|                                      |   |          |
|--------------------------------------|---|----------|
| Number of peaks in record            | = | 42       |
| Peaks not used in analysis           | = | 0        |
| Systematic peaks in analysis         | = | 42       |
| Historic peaks in analysis           | = | 0        |
| Years of historic record             | = | 0        |
| Generalized skew                     | = | -0.330   |
| Standard error of generalized skew   | = | 0.550    |
| Skew option                          | = | WEIGHTED |
| Gage base discharge                  | = | 100.0    |
| User supplied high outlier threshold | = | --       |
| User supplied low outlier criterion  | = | --       |
| Plotting position parameter          | = | 0.00     |

\*\*\*\*\* NOTICE -- Preliminary machine computations. \*\*\*\*\*  
\*\*\*\*\* User responsible for assessment and interpretation. \*\*\*\*\*

|   |   |        |
|---|---|--------|
| WCF133I-SYSTEMATIC PEAKS BELOW GAGE BASE WERE NOTED.        | 1 | 100.0  |
| WCF198I-LOW OUTLIERS BELOW FLOOD BASE WERE DROPPED.         | 1 | 107.8  |
| WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE. |   | 1215.8 |

Station - 05401800 YELLOW RIVER TRIBUTARY NEAR PITTSVILLE, WI  
2002 MAR 13 09:03:06

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

|                   | FLOOD BASE |                        | LOGARITHMIC |           |        |
|-------------------|------------|------------------------|-------------|-----------|--------|
|                   | DISCHARGE  | EXCEEDANCE PROBABILITY | MEAN        | STANDARD  | SKEW   |
|                   |            |                        |             | DEVIATION |        |
| SYSTEMATIC RECORD | 100.0      | 0.9762                 | 2.5703      | 0.2064    | -0.618 |
| BULL.17B ESTIMATE | 107.8      | 0.9524                 | 2.5782      | 0.1911    | -0.346 |

ANNUAL FREQUENCY CURVE -- DISCHARGES AT SELECTED EXCEEDANCE PROBABILITIES

| ANNUAL EXCEEDANCE PROBABILITY | BULL.17B ESTIMATE | SYSTEMATIC RECORD   | 'EXPECTED PROBABILITY' | 95-PCT CONFIDENCE LIMITS FOR BULL. 17B ESTIMATES |        |
|-------------------------------|-------------------|---------------------|------------------------|--|--------|
|                               |                   |                     | ESTIMATE               | LOWER  | UPPER  |
| 0.9500                        | 176.3             | 158.0               | 171.0                  | 143.0  | 206.3  |
| 0.9000                        | 212.5             | 197.7               | 208.5                  | 178.1  | 243.8  |
| 0.8000                        | 263.9             | 254.5               | 261.5                  | 228.4  | 297.5  |
| 0.5000                        | 388.3             | 390.3               | 388.3                  | 346.9  | 435.5  |
| 0.2000                        | 551.3             | 558.8               | 555.2                  | 488.5  | 638.3  |
| 0.1000                        | 653.0             | 656.8               | 661.9                  | 570.9  | 775.2  |
| 0.0400                        | 774.3             | 766.1               | 792.4                  | 665.4  | 946.2  |
| 0.0200                        | 859.8             | 838.1               | 886.9                  | 730.1  | 1071.0 |
| 0.0100                        | 941.2             | 902.9               | 979.4                  | 790.7  | 1192.0 |
| 0.0050                        | 1020.0            | 961.9               | 1071.0                 | 848.0  | 1312.0 |
| 0.0020                        | 1119.0            | 1032.0              | 1191.0                 | 919.8  | 1466.0 |
| 0.6667                        | 320.1             | ( 1.50-year flood ) |                        |  |        |
| 0.4292                        | 420.1             | ( 2.33-year flood ) |                        |  |        |

Station - 05401800 YELLOW RIVER TRIBUTARY NEAR PITTSVILLE, WI  
2002 MAR 13 09:03:06

I N P U T    D A T A    L I S T I N G

| WATER YEAR | DISCHARGE | CODES | WATER YEAR | DISCHARGE | CODES |
|------------|-----------|-------|------------|-----------|-------|
| 1959       | 350.0     |       | 1980       | 700.0     |       |
| 1960       | 260.0     |       | 1981       | 550.0     |       |
| 1961       | 320.0     |       | 1982       | 350.0     |       |
| 1962       | 280.0     |       | 1983       | 530.0     |       |
| 1963       | 280.0     |       | 1984       | 525.0     |       |
| 1964       | 340.0     |       | 1985       | 325.0     |       |
| 1965       | 600.0     |       | 1986       | 660.0     |       |
| 1966       | 300.0     |       | 1987       | 100.0     | L     |
| 1967       | 540.0     |       | 1988       | 265.0     |       |
| 1968       | 590.0     |       | 1989       | 360.0     |       |
| 1969       | 580.0     |       | 1990       | 690.0     |       |
| 1970       | 475.0     |       | 1991       | 390.0     |       |
| 1971       | 240.0     |       | 1992       | 150.0     |       |
| 1972       | 470.0     |       | 1993       | 715.0     |       |
| 1973       | 810.0     |       | 1994       | 160.0     |       |
| 1974       | 325.0     |       | 1995       | 240.0     |       |
| 1975       | 360.0     |       | 1996       | 318.0     |       |
| 1976       | 670.0     |       | 1997       | 230.0     |       |
| 1977       | 470.0     |       | 1998       | 105.0     |       |
| 1978       | 470.0     |       | 1999       | 191.0     |       |
| 1979       | 450.0     |       | 2000       | 430.0     |       |

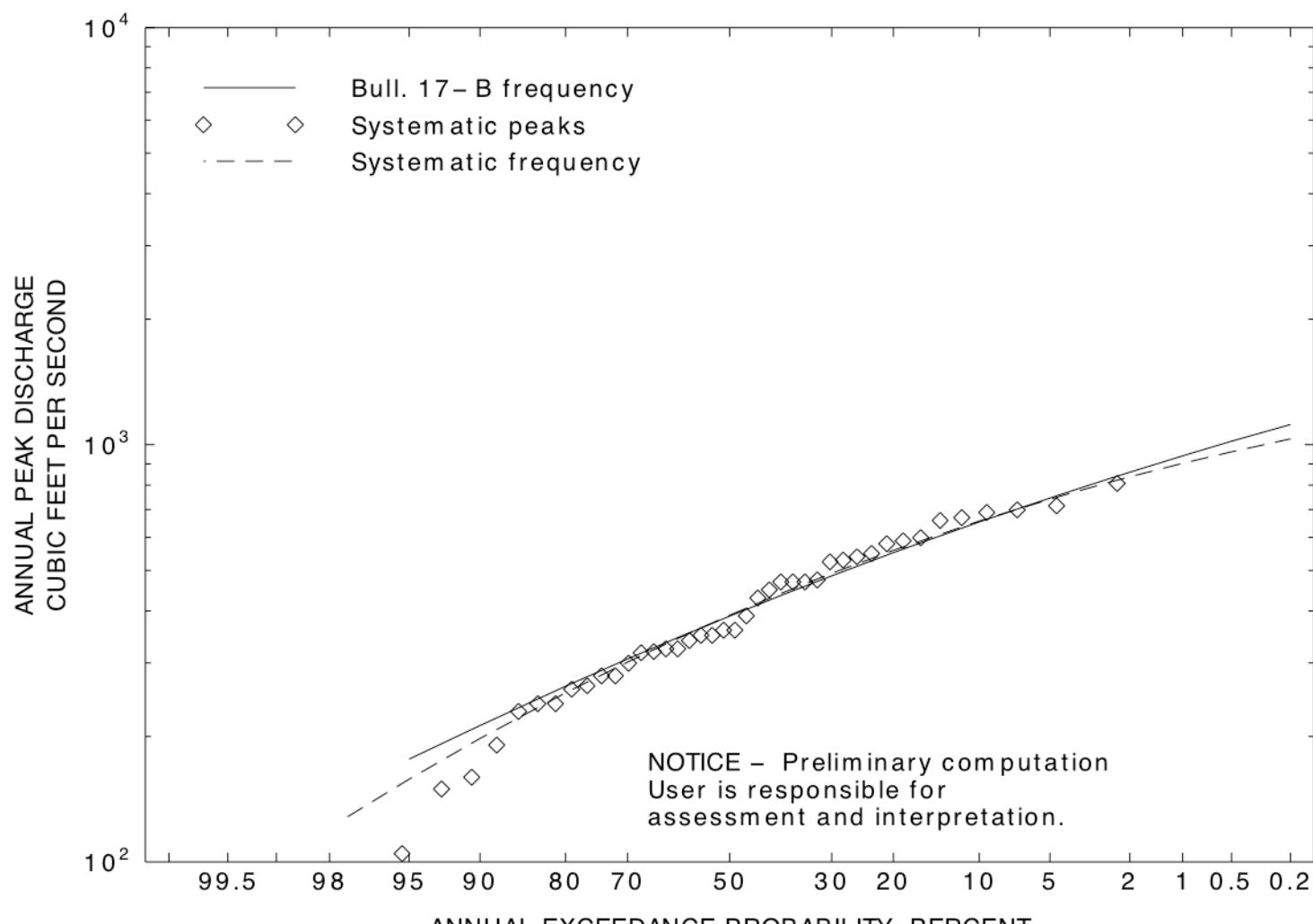
Explanation of peak discharge qualification codes

| PEAKFQ | WATSTORE |  |
|--------|----------|--|
| CODE   | CODE     | DEFINITION                                 |
| D      | 3        | Dam failure, non-recurrent flow anomaly    |
| G      | 8        | Discharge greater than stated value        |
| X      | 3+8      | Both of the above                          |
| L      | 4        | Discharge less than stated value           |
| K      | 6 OR C   | Known effect of regulation or urbanization |
| H      | 7        | Historic peak                              |

Station - 05401800 YELLOW RIVER TRIBUTARY NEAR PITTSVILLE, WI  
2002 MAR 13 09:03:06

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

| WATER<br>YEAR | RANKED<br>DISCHARGE | SYSTEMATIC<br>RECORD | BULL.17B<br>ESTIMATE |
|---------------|---------------------|----------------------|----------------------|
| 1973          | 810.0               | 0.0233               | 0.0233               |
| 1993          | 715.0               | 0.0465               | 0.0465               |
| 1980          | 700.0               | 0.0698               | 0.0698               |
| 1990          | 690.0               | 0.0930               | 0.0930               |
| 1976          | 670.0               | 0.1163               | 0.1163               |
| 1986          | 660.0               | 0.1395               | 0.1395               |
| 1965          | 600.0               | 0.1628               | 0.1628               |
| 1968          | 590.0               | 0.1860               | 0.1860               |
| 1969          | 580.0               | 0.2093               | 0.2093               |
| 1981          | 550.0               | 0.2326               | 0.2326               |
| 1967          | 540.0               | 0.2558               | 0.2558               |
| 1983          | 530.0               | 0.2791               | 0.2791               |
| 1984          | 525.0               | 0.3023               | 0.3023               |
| 1970          | 475.0               | 0.3256               | 0.3256               |
| 1972          | 470.0               | 0.3488               | 0.3488               |
| 1977          | 470.0               | 0.3721               | 0.3721               |
| 1978          | 470.0               | 0.3953               | 0.3953               |
| 1979          | 450.0               | 0.4186               | 0.4186               |
| 2000          | 430.0               | 0.4419               | 0.4419               |
| 1991          | 390.0               | 0.4651               | 0.4651               |
| 1975          | 360.0               | 0.4884               | 0.4884               |
| 1989          | 360.0               | 0.5116               | 0.5116               |
| 1959          | 350.0               | 0.5349               | 0.5349               |
| 1982          | 350.0               | 0.5581               | 0.5581               |
| 1964          | 340.0               | 0.5814               | 0.5814               |
| 1974          | 325.0               | 0.6047               | 0.6047               |
| 1985          | 325.0               | 0.6279               | 0.6279               |
| 1961          | 320.0               | 0.6512               | 0.6512               |
| 1996          | 318.0               | 0.6744               | 0.6744               |
| 1966          | 300.0               | 0.6977               | 0.6977               |
| 1962          | 280.0               | 0.7209               | 0.7209               |
| 1963          | 280.0               | 0.7442               | 0.7442               |
| 1988          | 265.0               | 0.7674               | 0.7674               |
| 1960          | 260.0               | 0.7907               | 0.7907               |
| 1971          | 240.0               | 0.8140               | 0.8140               |
| 1995          | 240.0               | 0.8372               | 0.8372               |
| 1997          | 230.0               | 0.8605               | 0.8605               |
| 1999          | 191.0               | 0.8837               | 0.8837               |
| 1994          | 160.0               | 0.9070               | 0.9070               |
| 1992          | 150.0               | 0.9302               | 0.9302               |
| 1998          | 105.0               | 0.9535               | 0.9535               |
| 1987          | 100.0               | --                   | --                   |



Station - 05401800 YELLOW RIVER TRIBUTARY NEAR PITTSVILLE, WI  
2002 MAR 13 09:03:06