

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

Station - 04086360 MILWAUKEE RIVER AT WAUBEKA, WI
 2002 MAR 13 09:02:40

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

Number of peaks in record	=	15
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	15
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.377
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	0.0
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. *****

WCF134I-NO SYSTEMATIC PEAKS WERE BELOW GAGE BASE.	0.0
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.	461.1
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	8275.1

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	3.2908	0.2790	-0.250
BULL.17B ESTIMATE	0.0	1.0000	3.2908	0.2790	-0.317

ANNUAL FREQUENCY CURVE -- DISCHARGES AT SELECTED EXCEEDANCE PROBABILITIES

ANNUAL EXCEEDANCE PROBABILITY	BULL.17B ESTIMATE	SYSTEMATIC RECORD	'EXPECTED PROBABILITY' ESTIMATE	95-PCT CONFIDENCE LIMITS FOR BULL. 17B ESTIMATES	
				LOWER	UPPER
0.9950	308.6	321.3	202.7	126.1	508.5
0.9900	378.0	389.9	275.6	168.2	597.7
0.9500	642.8	650.0	562.5	353.7	920.8
0.9000	841.5	844.5	776.8	511.4	1157.0
0.8000	1152.0	1148.0	1108.0	774.6	1529.0
0.5000	2021.0	2006.0	2021.0	1522.0	2703.0
0.2000	3380.0	3376.0	3486.0	2542.0	5054.0
0.1000	4341.0	4366.0	4603.0	3177.0	7036.0
0.0400	5592.0	5682.0	6201.0	3942.0	9933.0
0.0200	6537.0	6697.0	7533.0	4488.0	12330.0
0.0100	7487.0	7733.0	8993.0	5016.0	14900.0
0.0050	8443.0	8793.0	10620.0	5529.0	17630.0
0.0020	9718.0	10230.0	13020.0	6192.0	21500.0
0.6667	1524.2	(1.50-year flood)			
0.4292	2266.9	(2.33-year flood)			

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I N P U T D A T A L I S T I N G

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1968	1100.0		1976	2420.0	
1969	1660.0		1977	924.0	
1970	493.0		1978	2640.0	
1971	2500.0		1979	3820.0	
1972	2100.0		1980	2580.0	
1973	2220.0		1981	1400.0	
1974	3210.0		1994	1200.0	
1975	6990.0				

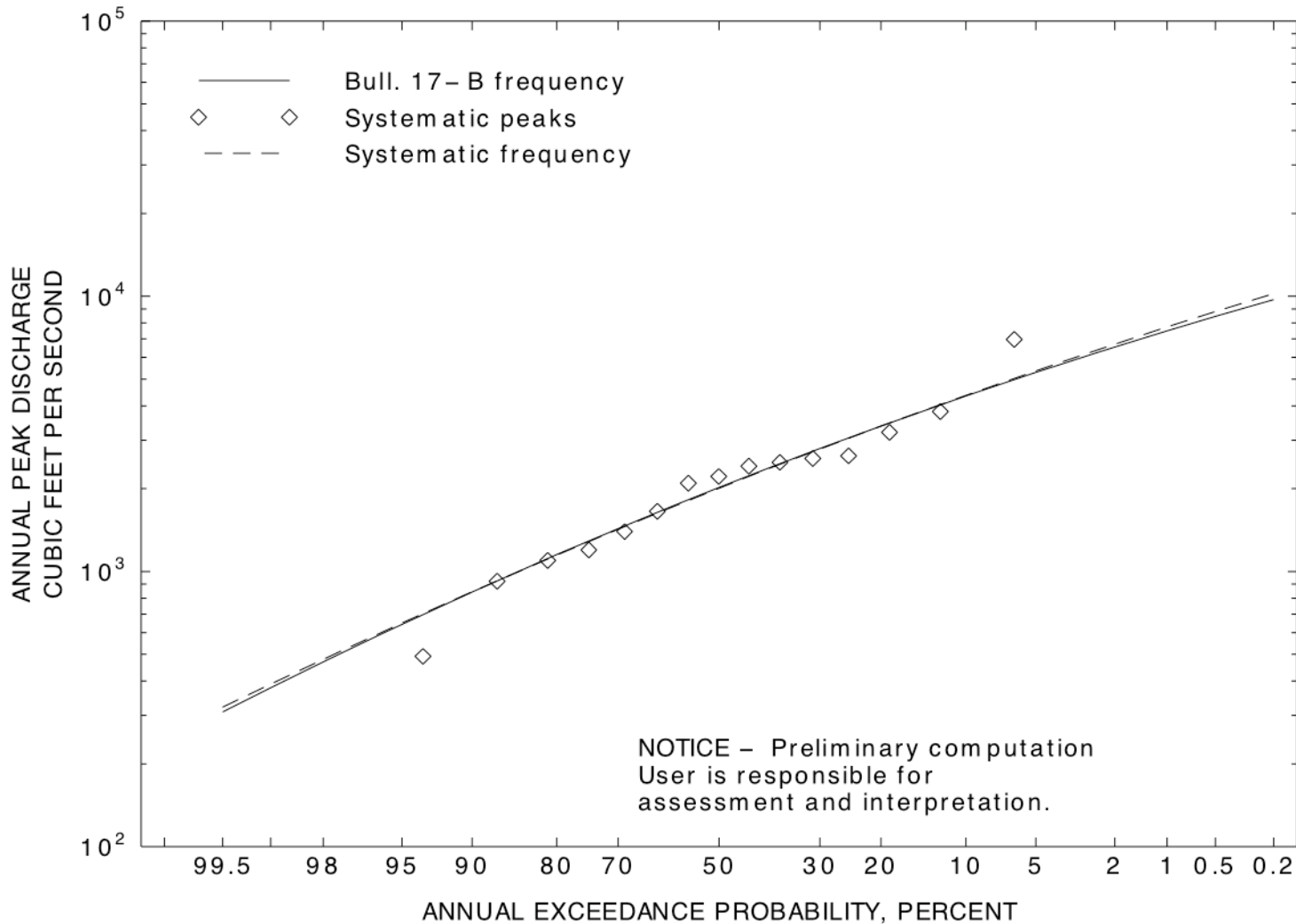
Explanation of peak discharge qualification codes

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

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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1975	6990.0	0.0625	0.0625
1979	3820.0	0.1250	0.1250
1974	3210.0	0.1875	0.1875
1978	2640.0	0.2500	0.2500
1980	2580.0	0.3125	0.3125
1971	2500.0	0.3750	0.3750
1976	2420.0	0.4375	0.4375
1973	2220.0	0.5000	0.5000
1972	2100.0	0.5625	0.5625
1969	1660.0	0.6250	0.6250
1981	1400.0	0.6875	0.6875
1994	1200.0	0.7500	0.7500
1968	1100.0	0.8125	0.8125
1977	924.0	0.8750	0.8750
1970	493.0	0.9375	0.9375



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