

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

Station - 05370000 EAU GALLE RIVER AT SPRING VALLEY, WI  
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I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	31
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	31
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	0.000
Standard error of generalized skew	=	0.550
Skew option	=	STATION SKEW
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.		238.6	
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		7097.9	
*WCF151I-17B WEIGHTED SKEW REPLACED BY USER OPTION.	-0.355	-0.608	-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	3.1144	0.2859	-0.608
BULL.17B ESTIMATE	0.0	1.0000	3.1144	0.2859	-0.608

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	164.7	164.7	131.1	90.5	246.5
0.9900	211.4	211.4	178.1	123.6	304.4
0.9500	398.2	398.2	370.8	270.7	523.8
0.9000	542.6	542.6	519.8	394.1	687.7
0.8000	769.2	769.2	753.8	595.6	945.2
0.5000	1391.0	1391.0	1391.0	1143.0	1703.0
0.2000	2288.0	2288.0	2318.0	1857.0	2973.0
0.1000	2865.0	2865.0	2933.0	2281.0	3878.0
0.0400	3551.0	3551.0	3690.0	2761.0	5022.0
0.0200	4026.0	4026.0	4229.0	3082.0	5851.0
0.0100	4469.0	4469.0	4749.0	3375.0	6649.0
0.0050	4883.0	4883.0	5247.0	3644.0	7415.0
0.0020	5392.0	5392.0	5879.0	3969.0	8379.0
0.6667	1038.7	( 1.50-year flood )			
0.4292	1563.5	( 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
1969	1430.0		1986	2340.0	
1970	1750.0	K	1987	1150.0	
1972	1050.0	K	1988	252.0	
1973	1790.0	K	1989	2570.0	
1974	1440.0	K	1990	2190.0	
1975	3180.0	K	1991	1320.0	K
1976	1040.0	K	1992	993.0	K
1977	3470.0	K	1993	2170.0	K
1978	3150.0	K	1994	866.0	K
1979	1090.0	K	1995	2140.0	K
1980	3030.0		1996	444.0	K
1981	512.0		1997	1470.0	K
1982	2050.0		1998	1750.0	K
1983	1020.0		1999	464.0	K
1984	640.0		2000	1180.0	K
1985	504.0				

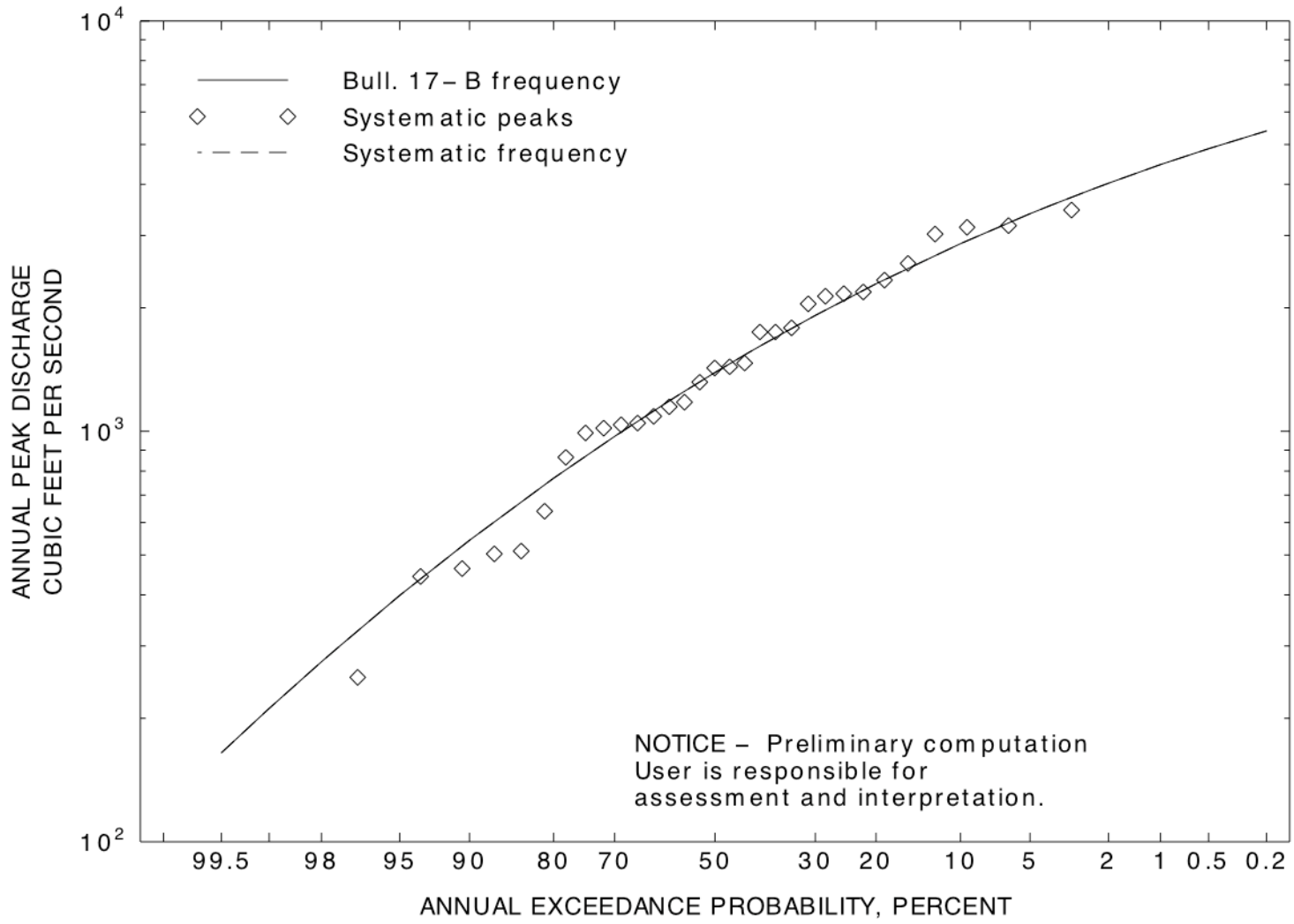
Explanation of peak discharge qualification codes

PEAKFQ CODE	WATSTORE 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
1977	3470.0	0.0312	0.0312
1975	3180.0	0.0625	0.0625
1978	3150.0	0.0938	0.0938
1980	3030.0	0.1250	0.1250
1989	2570.0	0.1562	0.1562
1986	2340.0	0.1875	0.1875
1990	2190.0	0.2188	0.2188
1993	2170.0	0.2500	0.2500
1995	2140.0	0.2812	0.2812
1982	2050.0	0.3125	0.3125
1973	1790.0	0.3438	0.3438
1970	1750.0	0.3750	0.3750
1998	1750.0	0.4062	0.4062
1997	1470.0	0.4375	0.4375
1974	1440.0	0.4688	0.4688
1969	1430.0	0.5000	0.5000
1991	1320.0	0.5312	0.5312
2000	1180.0	0.5625	0.5625
1987	1150.0	0.5938	0.5938
1979	1090.0	0.6250	0.6250
1972	1050.0	0.6562	0.6562
1976	1040.0	0.6875	0.6875
1983	1020.0	0.7188	0.7188
1992	993.0	0.7500	0.7500
1994	866.0	0.7812	0.7812
1984	640.0	0.8125	0.8125
1981	512.0	0.8438	0.8438
1985	504.0	0.8750	0.8750
1999	464.0	0.9062	0.9062
1996	444.0	0.9375	0.9375
1988	252.0	0.9688	0.9688



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