

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

Station - 05371920 BUFFALO RIVER NEAR MONDOVI, WI  
 2002 MAR 13 09:02:57

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	26
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	26
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.369
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.	300.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	7120.1

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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	3.1653	0.2746	0.384
BULL.17B ESTIMATE	0.0	1.0000	3.1653	0.2746	0.063

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	297.9	360.5	254.3	174.5	424.1
0.9900	346.1	402.5	305.6	211.0	481.1
0.9500	523.1	556.6	493.1	355.0	685.1
0.9000	653.5	670.8	629.8	467.6	832.9
0.8000	857.8	852.3	841.7	649.6	1066.0
0.5000	1454.0	1405.0	1454.0	1178.0	1792.0
0.2000	2487.0	2454.0	2536.0	2002.0	3281.0
0.1000	3304.0	3363.0	3437.0	2590.0	4627.0
0.0400	4488.0	4791.0	4823.0	3384.0	6766.0
0.0200	5478.0	6085.0	6070.0	4014.0	8696.0
0.0100	6560.0	7596.0	7529.0	4676.0	10930.0
0.0050	7744.0	9360.0	9249.0	5376.0	13500.0
0.0020	9480.0	12150.0	12020.0	6365.0	17480.0
0.6667	1108.9	( 1.50-year flood )			
0.4292	1626.6	( 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
1974	770.0		1988	605.0	
1975	5180.0		1989	4080.0	
1976	1150.0		1990	2990.0	
1977	650.0		1991	630.0	
1978	1850.0		1992	2950.0	
1979	765.0		1993	4000.0	
1980	2970.0		1994	1410.0	
1982	1220.0		1995	1730.0	
1983	2130.0		1996	990.0	
1984	1845.0		1997	770.0	
1985	2280.0		1998	990.0	
1986	1380.0		1999	740.0	
1987	1280.0		2000	1100.0	

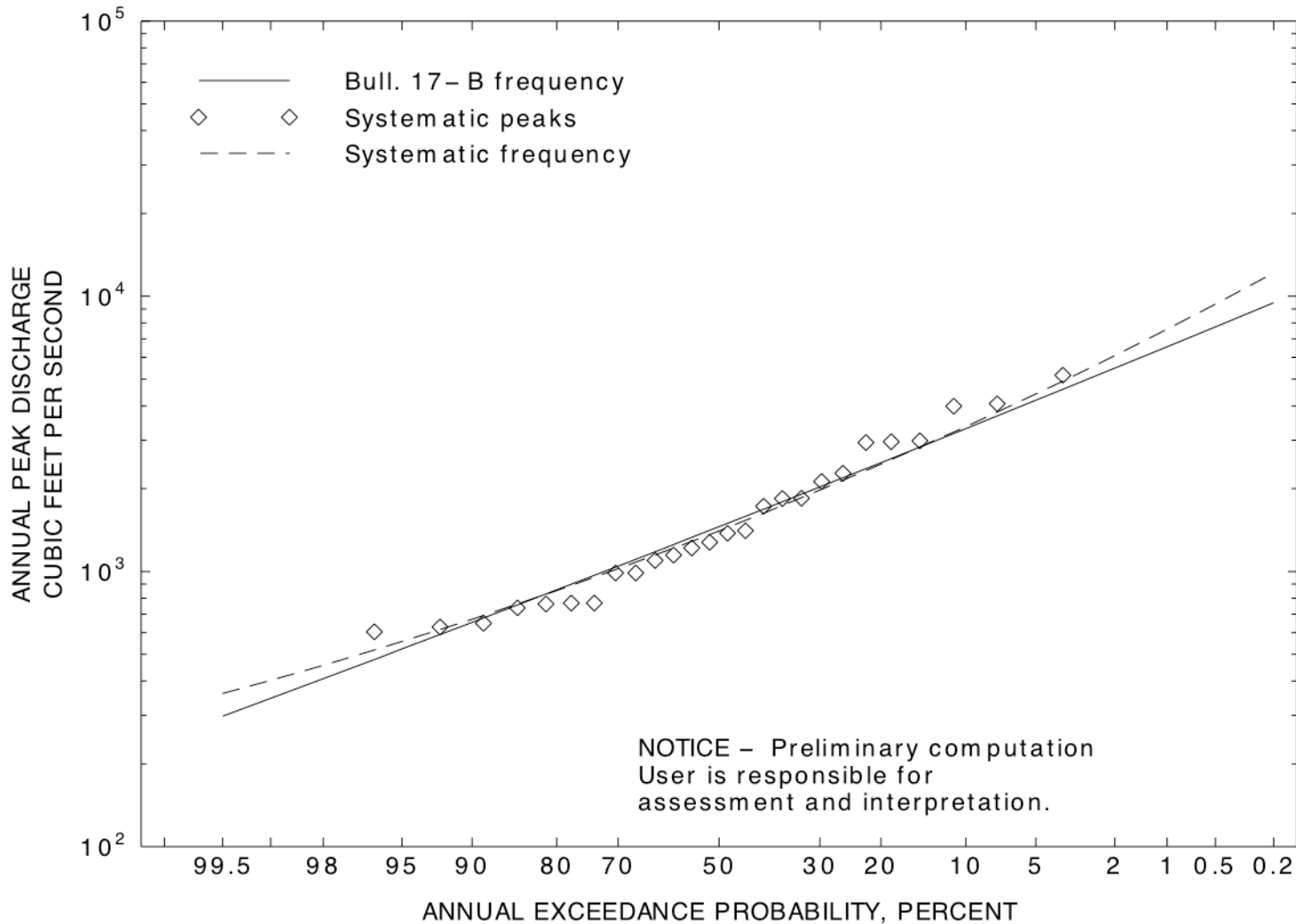
Explanation of peak discharge qualification codes

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	5180.0	0.0370	0.0370
1989	4080.0	0.0741	0.0741
1993	4000.0	0.1111	0.1111
1990	2990.0	0.1481	0.1481
1980	2970.0	0.1852	0.1852
1992	2950.0	0.2222	0.2222
1985	2280.0	0.2593	0.2593
1983	2130.0	0.2963	0.2963
1978	1850.0	0.3333	0.3333
1984	1845.0	0.3704	0.3704
1995	1730.0	0.4074	0.4074
1994	1410.0	0.4444	0.4444
1986	1380.0	0.4815	0.4815
1987	1280.0	0.5185	0.5185
1982	1220.0	0.5556	0.5556
1976	1150.0	0.5926	0.5926
2000	1100.0	0.6296	0.6296
1996	990.0	0.6667	0.6667
1998	990.0	0.7037	0.7037
1974	770.0	0.7407	0.7407
1997	770.0	0.7778	0.7778
1979	765.0	0.8148	0.8148
1999	740.0	0.8519	0.8519
1977	650.0	0.8889	0.8889
1991	630.0	0.9259	0.9259
1988	605.0	0.9630	0.9630



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