

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

Station - 05403610 WISCONSIN RIVER TRIBUTARY AT WISCONSIN DELLS, WI
 2002 MAR 13 09:03:09

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

Number of peaks in record	=	19
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	19
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.384
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	10.0
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.	9	10.0	
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		43.6	
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		8.0	
**WCF199W-NUMBER OF PEAKS BELOW FLOOD BASE EXCEEDS 17B SPEC.	9	10.0	4
WCF002J-CALCS COMPLETED. RETURN CODE = 2			

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	10.0	0.5263	0.9539	0.3936	-0.625
BULL.17B ESTIMATE	10.0	0.5263	0.9539	0.3936	-0.501

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
0.5000	10.0	10.0	10.0	7.1	14.4
0.2000	19.5	19.6	20.2	13.6	31.8
0.1000	27.1	26.6	28.7	18.3	48.0
0.0400	37.2	35.6	41.0	24.1	72.4
0.0200	45.0	42.2	51.2	28.3	93.0
0.0100	52.8	48.6	62.1	32.4	115.0
0.0050	60.7	54.8	73.8	36.3	138.3
0.0020	71.1	62.6	90.3	41.4	170.9
0.6667	1.50-year flood below base				
0.4292	11.4 (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
1962	12.0		1972	10.0	L
1963	10.0	L	1973	27.0	
1964	10.0	L	1974	38.0	
1965	20.0		1975	10.0	
1966	30.0		1976	10.0	L
1967	11.0		1977	10.0	L
1968	10.0		1978	20.0	
1969	10.0	L	1979	14.0	
1970	10.0	L	1980	17.0	
1971	13.0				

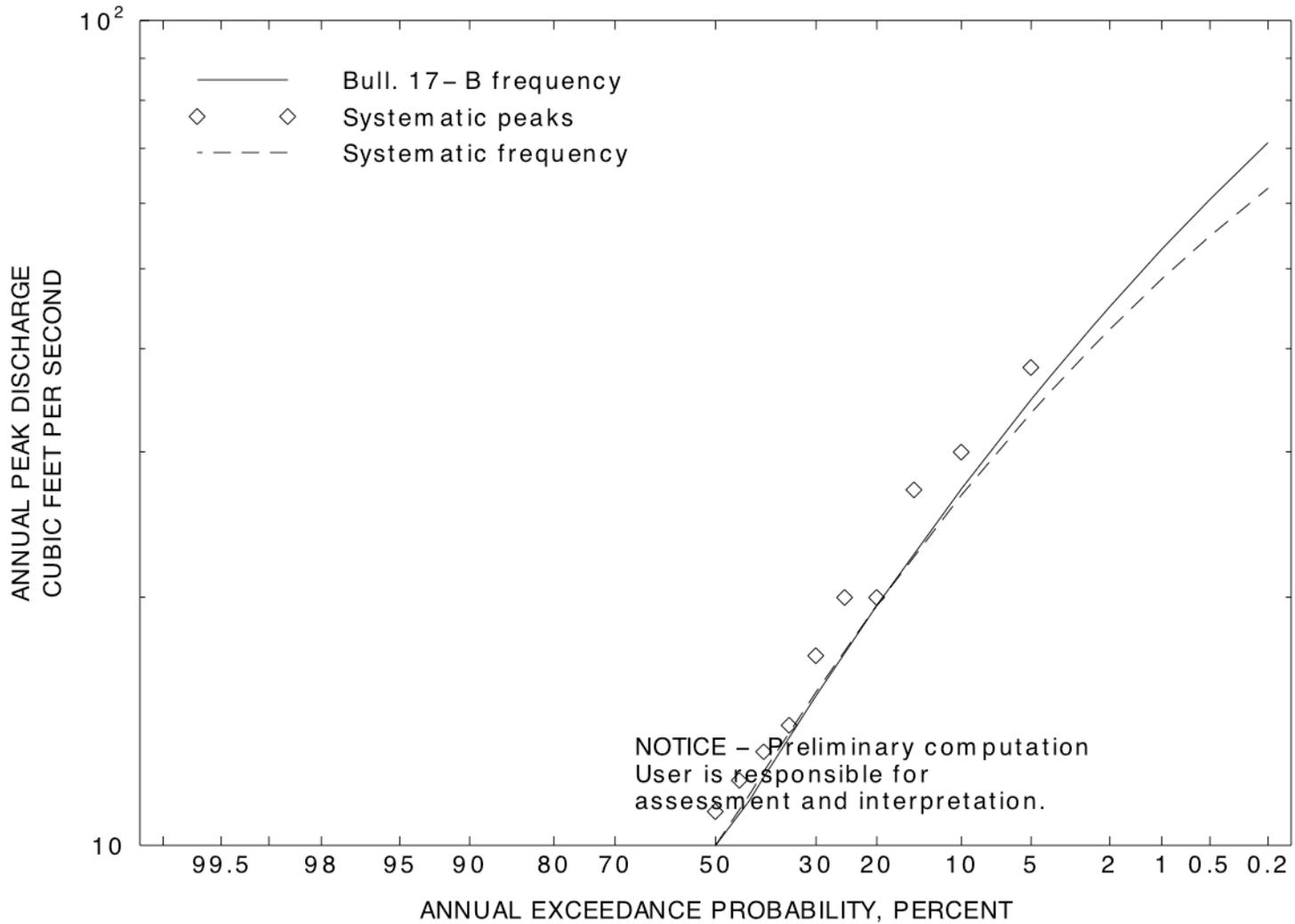
Explanation of peak discharge qualification codes

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
1974	38.0	0.0500	0.0500
1966	30.0	0.1000	0.1000
1973	27.0	0.1500	0.1500
1965	20.0	0.2000	0.2000
1978	20.0	0.2500	0.2500
1980	17.0	0.3000	0.3000
1979	14.0	0.3500	0.3500
1971	13.0	0.4000	0.4000
1962	12.0	0.4500	0.4500
1967	11.0	0.5000	0.5000
1963	10.0	--	--
1964	10.0	--	--
1968	10.0	--	--
1969	10.0	--	--
1970	10.0	--	--
1972	10.0	--	--
1975	10.0	--	--
1976	10.0	--	--
1977	10.0	--	--



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