

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

Station - 05406470 BREWERY CREEK AT CROSS PLAINS, WI
 2002 MAR 13 09:03:11

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

Number of peaks in record	=	12
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	12
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.397
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.		26.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		497.2
**WCF233W-EXPECTED PROB OUT OF RANGE AT TAB PROB.	0.00008	0.00200
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	0.0	1.0000	2.0612	0.2977	0.038
BULL.17B ESTIMATE	0.0	1.0000	2.0612	0.2977	-0.209

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	17.2	20.2	10.0	5.7	30.4
0.9900	21.0	23.8	14.0	7.7	35.6
0.9500	35.8	37.6	30.1	17.0	54.5
0.9000	47.2	48.0	42.5	25.3	68.5
0.8000	65.2	64.6	61.9	39.7	91.2
0.5000	117.9	114.6	117.9	83.5	167.5
0.2000	206.2	204.7	215.5	147.2	340.1
0.1000	272.6	277.9	296.7	188.5	501.9
0.0400	363.4	385.7	423.7	239.9	760.0
0.0200	435.3	477.2	539.6	277.9	990.5
0.0100	510.3	578.2	678.2	315.5	1253.0
0.0050	588.4	689.8	845.3	353.2	1549.0
0.0020	696.7	854.7	--	403.1	1995.0
0.6667	87.4	(1.50-year flood)			
0.4292	133.3	(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
1985	231.0		1994	109.0	
1986	33.0		1995	65.0	
1990	143.0		1996	105.0	
1991	54.0		1997	185.0	
1992	90.0		1998	100.0	
1993	420.0		2000	177.0	

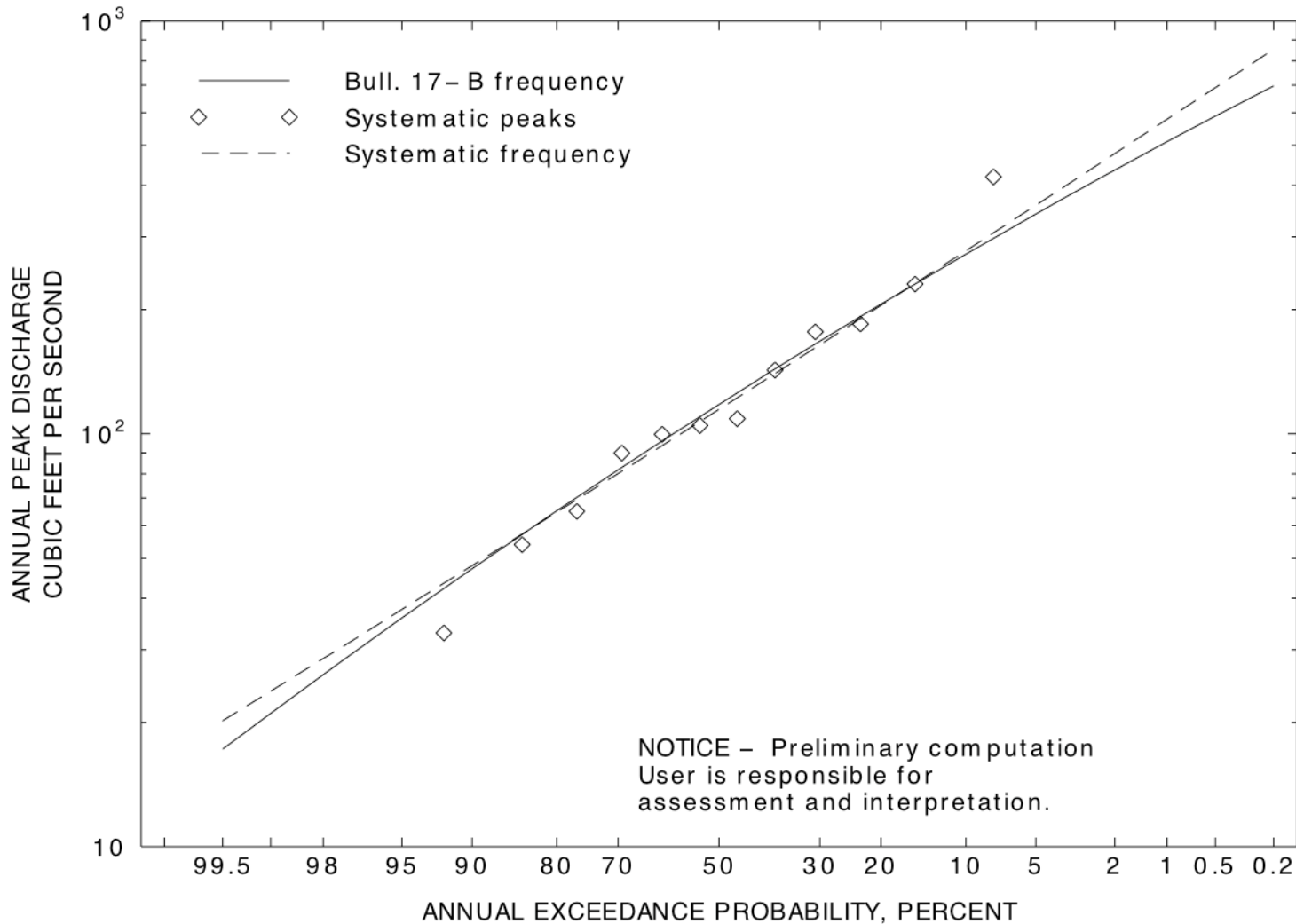
Explanation of peak discharge qualification codes

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
1993	420.0	0.0769	0.0769
1985	231.0	0.1538	0.1538
1997	185.0	0.2308	0.2308
2000	177.0	0.3077	0.3077
1990	143.0	0.3846	0.3846
1994	109.0	0.4615	0.4615
1996	105.0	0.5385	0.5385
1998	100.0	0.6154	0.6154
1992	90.0	0.6923	0.6923
1995	65.0	0.7692	0.7692
1991	54.0	0.8462	0.8462
1986	33.0	0.9231	0.9231



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