

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

Station - 04029000 WEST BRANCH MONTREAL RIVER AT GILE, WI  
 2002 JUL 10 11:20:38

I N P U T   D A T A   S U M M A R Y

Number of peaks in record	=	13
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	13
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		
WCF198I-LOW OUTLIERS BELOW FLOOD BASE WERE DROPPED.	1	307.1		
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		1854.9		
*WCF151I-17B WEIGHTED SKEW REPLACED BY USER OPTION.	-0.281	-0.684	-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	2.9245	0.2010	-1.312
BULL.17B ESTIMATE	307.1	0.9231	2.9482	0.1532	-0.684

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	--	147.8	--	--	--
0.9900	--	189.5	--	--	--
0.9500	--	344.5	--	--	--
0.9000	554.8	452.2	522.9	408.4	668.8
0.8000	671.3	602.9	653.1	530.0	792.1
0.5000	923.7	927.1	923.7	782.0	1102.0
0.2000	1201.0	1238.0	1221.0	1016.0	1533.0
0.1000	1349.0	1373.0	1389.0	1127.0	1795.0
0.0400	1504.0	1488.0	1579.0	1237.0	2091.0
0.0200	1601.0	1546.0	1704.0	1303.0	2286.0
0.0100	1685.0	1588.0	1818.0	1359.0	2460.0
0.0050	1760.0	1618.0	1922.0	1407.0	2618.0
0.0020	1845.0	1646.0	2045.0	1462.0	2804.0
0.6667	789.9	( 1.50-year flood )			
0.4292	983.4	( 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
1918	490.0		1925	270.0	K
1919	780.0	K	1943	1030.0	K
1920	850.0	K	1944	1220.0	K
1921	900.0	K	1945	1000.0	K
1922	1270.0	K	1946	975.0	K
1923	1550.0	K	1947	553.0	K
1924	990.0	K			

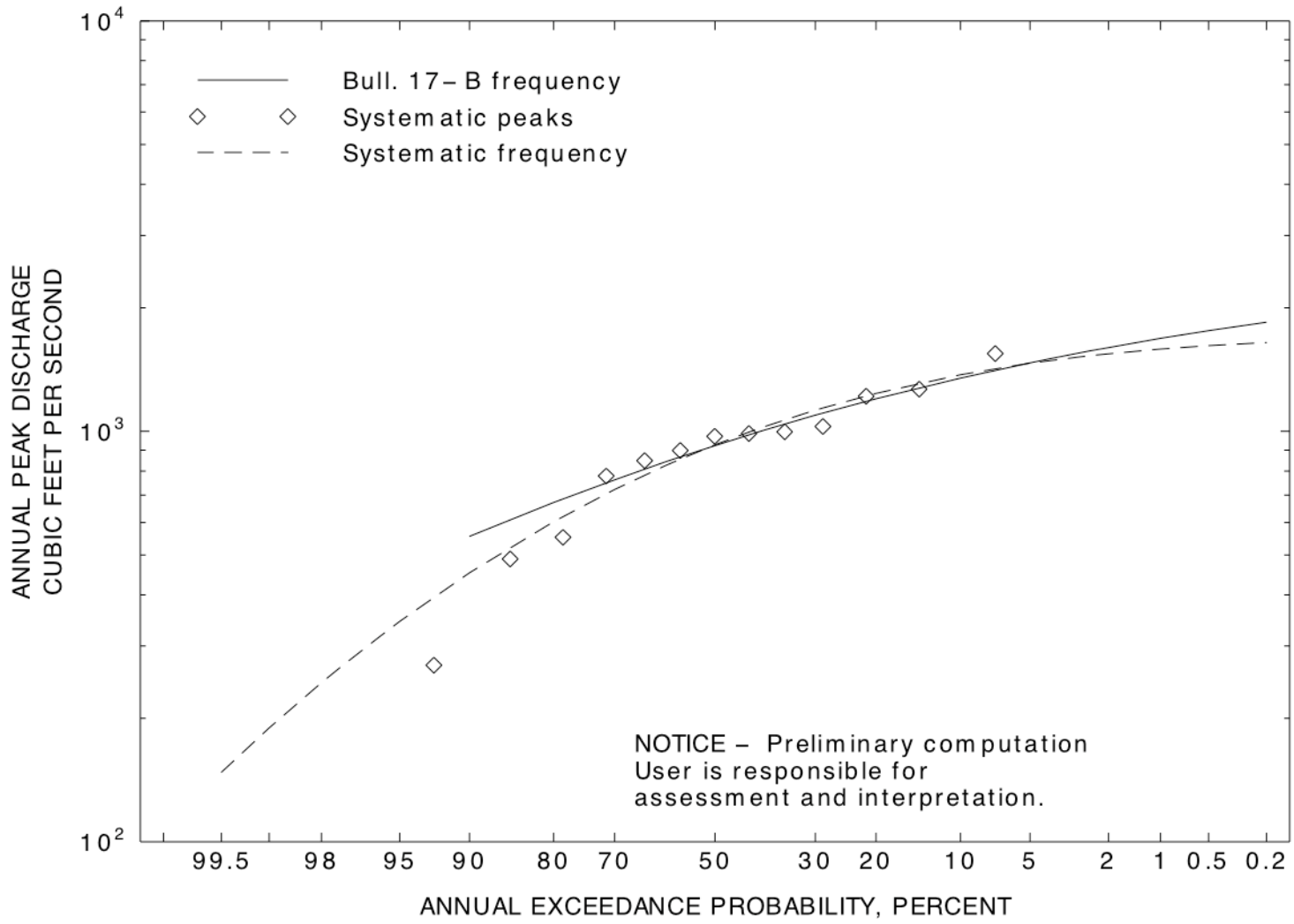
Explanation of peak discharge qualification codes

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
1923	1550.0	0.0714	0.0714
1922	1270.0	0.1429	0.1429
1944	1220.0	0.2143	0.2143
1943	1030.0	0.2857	0.2857
1945	1000.0	0.3571	0.3571
1924	990.0	0.4286	0.4286
1946	975.0	0.5000	0.5000
1921	900.0	0.5714	0.5714
1920	850.0	0.6429	0.6429
1919	780.0	0.7143	0.7143
1947	553.0	0.7857	0.7857
1918	490.0	0.8571	0.8571
1925	270.0	0.9286	0.9286



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