

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

Station - 05545750 FOX RIVER NEAR NEW MUNSTER, WI
2002 MAR 13 09:03:28

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

Number of peaks in record	=	61
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	61
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.400
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
WCF162I-SYSTEMATIC PEAKS EXCEEDED HIGH-OUTLIER CRITERION.	1	12945.1
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.		603.1

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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	3.4462	0.2343	1.581
BULL.17B ESTIMATE	0.0	1.0000	3.4462	0.2343	0.543

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	915.3	1440.0	886.9	725.7	1097.0
0.9900	990.3	1456.0	964.3	794.4	1177.0
0.9500	1260.0	1543.0	1241.0	1046.0	1463.0
0.9000	1455.0	1630.0	1441.0	1231.0	1669.0
0.8000	1760.0	1796.0	1750.0	1521.0	1993.0
0.5000	2662.0	2439.0	2662.0	2369.0	2983.0
0.2000	4313.0	4028.0	4348.0	3814.0	4975.0
0.1000	5712.0	5726.0	5811.0	4954.0	6808.0
0.0400	7884.0	8959.0	8147.0	6634.0	9828.0
0.0200	9831.0	12470.0	10320.0	8082.0	12670.0
0.0100	12090.0	17280.0	12920.0	9715.0	16110.0
0.0050	14720.0	23860.0	16070.0	11560.0	20240.0
0.0020	18860.0	36390.0	21250.0	14380.0	27010.0
0.6667	2137.9	(1.50-year flood)			
0.4292	2921.3	(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
1940	3150.0		1971	3010.0	
1941	2130.0		1972	3280.0	
1942	1610.0		1973	6530.0	
1943	5700.0		1974	3950.0	
1944	3100.0		1975	2840.0	
1945	2130.0		1976	3700.0	
1946	4170.0		1977	1120.0	
1947	2070.0		1978	2340.0	
1948	5000.0		1979	5010.0	
1949	2400.0		1980	1650.0	
1950	2400.0		1981	2230.0	
1951	3660.0		1982	3510.0	
1952	4010.0		1983	4020.0	
1953	1780.0		1984	2400.0	
1954	2050.0		1985	3220.0	
1955	1810.0		1986	3600.0	
1956	1680.0		1987	3810.0	
1957	1350.0		1988	2390.0	
1958	1010.0		1989	1850.0	
1959	3010.0		1990	2770.0	
1960	7520.0		1991	2810.0	
1961	2220.0		1992	1900.0	
1962	4060.0		1993	5060.0	
1963	1290.0		1994	3600.0	
1964	1260.0		1995	1860.0	
1965	2880.0		1996	2920.0	
1966	3310.0		1997	3260.0	
1967	2380.0		1998	1830.0	
1968	1990.0		1999	4670.0	
1969	2260.0		2000	34100.0	
1970	1840.0				

Explanation of peak discharge qualification codes

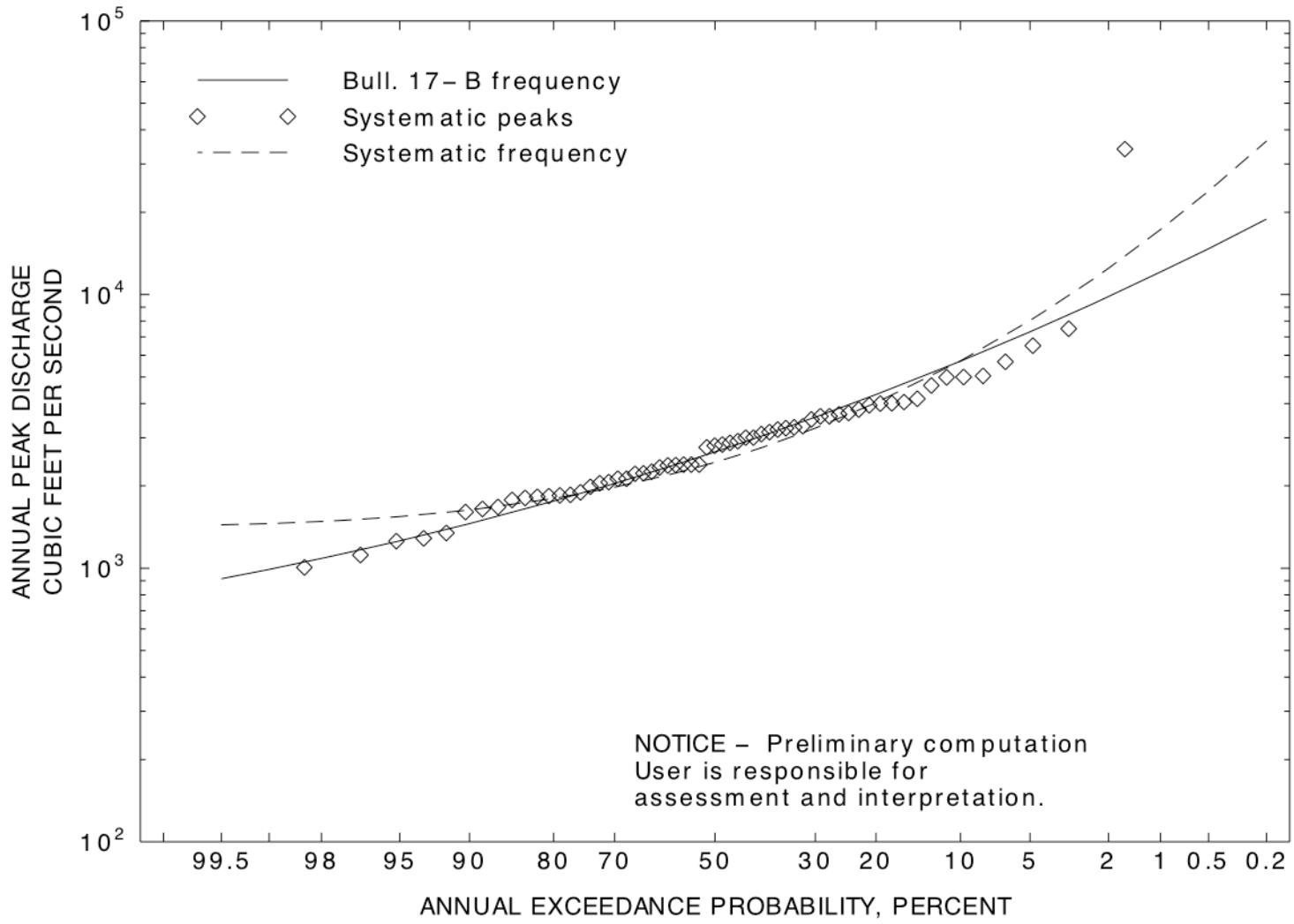
PEAKFQ	WATSTORE	DEFINITION
CODE	CODE	
D	3	Dam failure, non-recurrent flow anomaly
G	8	Discharge greater than stated value
X	3+8	Both of the above
L	4	Discharge less than stated value
K	6 OR C	Known effect of regulation or urbanization
H	7	Historic peak

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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
2000	34100.0	0.0161	0.0161
1960	7520.0	0.0323	0.0323
1973	6530.0	0.0484	0.0484
1943	5700.0	0.0645	0.0645
1993	5060.0	0.0806	0.0806
1979	5010.0	0.0968	0.0968
1948	5000.0	0.1129	0.1129
1999	4670.0	0.1290	0.1290
1946	4170.0	0.1452	0.1452
1962	4060.0	0.1613	0.1613
1983	4020.0	0.1774	0.1774
1952	4010.0	0.1935	0.1935
1974	3950.0	0.2097	0.2097
1987	3810.0	0.2258	0.2258
1976	3700.0	0.2419	0.2419
1951	3660.0	0.2581	0.2581
1986	3600.0	0.2742	0.2742
1994	3600.0	0.2903	0.2903
1982	3510.0	0.3065	0.3065
1966	3310.0	0.3226	0.3226
1972	3280.0	0.3387	0.3387
1997	3260.0	0.3548	0.3548
1985	3220.0	0.3710	0.3710
1940	3150.0	0.3871	0.3871
1944	3100.0	0.4032	0.4032
1959	3010.0	0.4194	0.4194
1971	3010.0	0.4355	0.4355
1996	2920.0	0.4516	0.4516
1965	2880.0	0.4677	0.4677
1975	2840.0	0.4839	0.4839
1991	2810.0	0.5000	0.5000
1990	2770.0	0.5161	0.5161
1949	2400.0	0.5323	0.5323
1950	2400.0	0.5484	0.5484
1984	2400.0	0.5645	0.5645
1988	2390.0	0.5806	0.5806
1967	2380.0	0.5968	0.5968
1978	2340.0	0.6129	0.6129
1969	2260.0	0.6290	0.6290
1981	2230.0	0.6452	0.6452
1961	2220.0	0.6613	0.6613
1941	2130.0	0.6774	0.6774
1945	2130.0	0.6935	0.6935
1947	2070.0	0.7097	0.7097
1954	2050.0	0.7258	0.7258
1968	1990.0	0.7419	0.7419
1992	1900.0	0.7581	0.7581
1995	1860.0	0.7742	0.7742

1989	1850.0	0.7903	0.7903
1970	1840.0	0.8065	0.8065
1998	1830.0	0.8226	0.8226
1955	1810.0	0.8387	0.8387
1953	1780.0	0.8548	0.8548
1956	1680.0	0.8710	0.8710
1980	1650.0	0.8871	0.8871
1942	1610.0	0.9032	0.9032
1957	1350.0	0.9194	0.9194
1963	1290.0	0.9355	0.9355
1964	1260.0	0.9516	0.9516
1977	1120.0	0.9677	0.9677
1958	1010.0	0.9839	0.9839



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