

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

Station - 05364500 DUNCAN CREEK AT BLOOMER, WI  
2002 MAR 13 09:02:52

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

Number of peaks in record	=	50
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	50
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.319
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.	82.2
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	9551.0

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 2002 MAR 13 09:02:52

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE	LOGARITHMIC		
	EXCEEDANCE DISCHARGE	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	2.9475	0.3730
BULL.17B ESTIMATE	0.0	1.0000	2.9475	0.3730

ANNUAL FREQUENCY CURVE -- DISCHARGES AT SELECTED EXCEEDANCE PROBABILITIES

ANNUAL EXCEEDANCE PROBABILITY	BULL.17B ESTIMATE	SYSTEMATIC RECORD	'EXPECTED PROBABILITY'	95-PCT CONFIDENCE LIMITS FOR BULL. 17B ESTIMATES	
				LOWER	UPPER
0.9950	101.5	114.1	91.2	62.6	145.6
0.9900	124.5	136.6	114.4	79.6	174.3
0.9500	218.8	227.0	210.0	153.7	287.6
0.9000	296.3	300.7	288.8	218.0	378.5
0.8000	429.0	427.0	423.5	331.4	533.0
0.5000	878.9	860.9	878.9	717.5	1076.0
0.2000	1821.0	1808.0	1846.0	1466.0	2356.0
0.1000	2678.0	2709.0	2752.0	2094.0	3646.0
0.0400	4053.0	4224.0	4259.0	3044.0	5884.0
0.0200	5308.0	5667.0	5692.0	3870.0	8062.0
0.0100	6775.0	7417.0	7435.0	4800.0	10730.0
0.0050	8479.0	9526.0	9550.0	5846.0	13980.0
0.0020	11140.0	12970.0	13040.0	7426.0	19310.0
0.6667	608.3	( 1.50-year flood )			
0.4292	1023.9	( 2.33-year flood )			

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2002 MAR 13 09:02:52

I N P U T    D A T A    L I S T I N G

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1945	1130.0		1976	440.0	
1946	990.0		1977	540.0	
1947	846.0		1978	390.0	
1948	1050.0		1979	5400.0	
1949	1050.0		1980	5400.0	
1950	1050.0		1981	720.0	
1951	1300.0		1982	1120.0	
1958	790.0		1983	620.0	
1959	3200.0		1984	470.0	
1960	1120.0		1985	350.0	
1961	775.0		1986	3700.0	
1962	740.0		1987	375.0	
1963	665.0		1988	165.0	
1964	138.0		1989	2700.0	
1965	1020.0		1990	4500.0	
1966	980.0		1991	2900.0	
1967	2050.0		1992	2650.0	
1968	610.0		1993	1850.0	
1969	640.0		1994	700.0	
1970	195.0		1995	1110.0	
1971	460.0		1996	2120.0	
1972	265.0		1997	658.0	
1973	1480.0		1998	1010.0	
1974	475.0		1999	297.0	
1975	540.0		2000	539.0	

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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 2002 MAR 13 09:02:52

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1979	5400.0	0.0196	0.0196
1980	5400.0	0.0392	0.0392
1990	4500.0	0.0588	0.0588
1986	3700.0	0.0784	0.0784
1959	3200.0	0.0980	0.0980
1991	2900.0	0.1176	0.1176
1989	2700.0	0.1373	0.1373
1992	2650.0	0.1569	0.1569
1996	2120.0	0.1765	0.1765
1967	2050.0	0.1961	0.1961
1993	1850.0	0.2157	0.2157
1973	1480.0	0.2353	0.2353
1951	1300.0	0.2549	0.2549
1945	1130.0	0.2745	0.2745
1960	1120.0	0.2941	0.2941
1982	1120.0	0.3137	0.3137
1995	1110.0	0.3333	0.3333
1948	1050.0	0.3529	0.3529
1949	1050.0	0.3725	0.3725
1950	1050.0	0.3922	0.3922
1965	1020.0	0.4118	0.4118
1998	1010.0	0.4314	0.4314
1946	990.0	0.4510	0.4510
1966	980.0	0.4706	0.4706
1947	846.0	0.4902	0.4902
1958	790.0	0.5098	0.5098
1961	775.0	0.5294	0.5294
1962	740.0	0.5490	0.5490
1981	720.0	0.5686	0.5686
1994	700.0	0.5882	0.5882
1963	665.0	0.6078	0.6078
1997	658.0	0.6275	0.6275
1969	640.0	0.6471	0.6471
1983	620.0	0.6667	0.6667
1968	610.0	0.6863	0.6863
1975	540.0	0.7059	0.7059
1977	540.0	0.7255	0.7255
2000	539.0	0.7451	0.7451
1974	475.0	0.7647	0.7647
1984	470.0	0.7843	0.7843
1971	460.0	0.8039	0.8039
1976	440.0	0.8235	0.8235
1978	390.0	0.8431	0.8431
1987	375.0	0.8627	0.8627
1985	350.0	0.8824	0.8824
1999	297.0	0.9020	0.9020
1972	265.0	0.9216	0.9216
1970	195.0	0.9412	0.9412

1988	165.0	0.9608	0.9608
1964	138.0	0.9804	0.9804

