

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

Station - 04074950 WOLF RIVER AT LANGLADE, WI
2002 MAR 13 09:02:33

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

Number of peaks in record	=	32
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	32
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.203
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.	721.1
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	2968.1

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	EXCEEDANCE DISCHARGE	PROBABILITY	MEAN	STANDARD	SKEW
				DEVIATION	
SYSTEMATIC RECORD	0.0	1.0000	3.1652	0.1186	-0.385
BULL.17B ESTIMATE	0.0	1.0000	3.1652	0.1186	-0.315

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	
			ESTIMATE	LOWER	UPPER
0.9950	668.1	656.4	619.9	533.4	779.2
0.9900	728.2	718.4	687.8	593.5	838.4
0.9500	912.4	908.0	889.8	783.0	1018.0
0.9000	1023.0	1022.0	1007.0	899.1	1126.0
0.8000	1169.0	1170.0	1160.0	1052.0	1272.0
0.5000	1484.0	1489.0	1484.0	1369.0	1611.0
0.2000	1847.0	1848.0	1858.0	1696.0	2054.0
0.1000	2054.0	2049.0	2077.0	1869.0	2329.0
0.0400	2288.0	2272.0	2333.0	2057.0	2651.0
0.0200	2445.0	2419.0	2510.0	2179.0	2875.0
0.0100	2591.0	2554.0	2680.0	2291.0	3086.0
0.0050	2727.0	2678.0	2843.0	2394.0	3287.0
0.0020	2895.0	2830.0	3053.0	2520.0	3539.0
0.6667	1316.5	(1.50-year flood)			
0.4292	1558.4	(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
1968	1510.0		1985	1460.0	
1969	1450.0		1986	1960.0	
1970	930.0		1987	1310.0	
1971	1700.0		1988	1160.0	
1972	1770.0		1989	1500.0	
1973	2200.0		1990	2010.0	
1974	1090.0		1991	1770.0	
1975	1980.0		1992	1550.0	
1976	1860.0		1993	1780.0	
1977	1190.0		1994	1600.0	
1978	1050.0		1995	771.0	
1979	1850.0		1996	2440.0	
1981	1280.0		1997	1790.0	
1982	1200.0		1998	1600.0	
1983	1310.0		1999	934.0	
1984	1060.0		2000	1410.0	

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
1996	2440.0	0.0303	0.0303
1973	2200.0	0.0606	0.0606
1990	2010.0	0.0909	0.0909
1975	1980.0	0.1212	0.1212
1986	1960.0	0.1515	0.1515
1976	1860.0	0.1818	0.1818
1979	1850.0	0.2121	0.2121
1997	1790.0	0.2424	0.2424
1993	1780.0	0.2727	0.2727
1972	1770.0	0.3030	0.3030
1991	1770.0	0.3333	0.3333
1971	1700.0	0.3636	0.3636
1994	1600.0	0.3939	0.3939
1998	1600.0	0.4242	0.4242
1992	1550.0	0.4545	0.4545
1968	1510.0	0.4848	0.4848
1989	1500.0	0.5152	0.5152
1985	1460.0	0.5455	0.5455
1969	1450.0	0.5758	0.5758
2000	1410.0	0.6061	0.6061
1983	1310.0	0.6364	0.6364
1987	1310.0	0.6667	0.6667
1981	1280.0	0.6970	0.6970
1982	1200.0	0.7273	0.7273
1977	1190.0	0.7576	0.7576
1988	1160.0	0.7879	0.7879
1974	1090.0	0.8182	0.8182
1984	1060.0	0.8485	0.8485
1978	1050.0	0.8788	0.8788
1999	934.0	0.9091	0.9091
1970	930.0	0.9394	0.9394
1995	771.0	0.9697	0.9697

