

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

Station - 05370900 SPRING CREEK NEAR DURAND, WI
2002 DEC 5 16:25:51

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

Number of peaks in record	=	39
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	39
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.376
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
WCF198I-LOW OUTLIERS BELOW FLOOD BASE WERE DROPPED.	1 16.1
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	1190.6

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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	2.1962	0.3709	-0.893
BULL.17B ESTIMATE	16.1	0.9744	2.2161	0.3242	-0.304

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	--	8.7	--	--	--
0.9900	--	12.6	--	--	--
0.9500	45.3	32.2	42.9	31.3	59.6
0.9000	61.9	50.1	59.8	45.2	78.7
0.8000	88.9	81.4	87.5	68.8	109.8
0.5000	170.8	178.1	170.8	140.0	209.0
0.2000	310.9	325.9	315.0	251.4	402.9
0.1000	416.4	418.9	427.1	328.8	564.8
0.0400	560.2	523.9	585.2	428.8	801.1
0.0200	672.9	591.8	713.9	504.2	996.7
0.0100	789.3	651.4	851.6	579.7	1207.0
0.0050	909.2	703.5	998.8	655.8	1430.0
0.0020	1073.0	762.7	1210.0	757.2	1748.0
0.6667	123.1	(1.50-year flood)			
0.4292	195.2	(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
1962	250.0		1982	50.0	
1963	430.0		1983	87.0	
1964	50.0		1984	135.0	
1965	370.0		1985	225.0	
1966	310.0		1986	355.0	
1967	240.0		1987	250.0	
1968	340.0		1988	100.0	
1969	50.0		1989	305.0	
1970	35.0		1990	120.0	
1971	10.0		1991	80.0	
1972	400.0		1992	360.0	
1973	200.0		1993	160.0	
1974	110.0		1994	450.0	
1975	860.0		1995	150.0	
1976	60.0		1996	200.0	
1977	180.0		1997	200.0	
1978	70.0		1998	200.0	
1979	130.0		1999	200.0	
1980	200.0		2000	200.0	
1981	80.0				

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
1975	860.0	0.0250	0.0250
1994	450.0	0.0500	0.0500
1963	430.0	0.0750	0.0750
1972	400.0	0.1000	0.1000
1965	370.0	0.1250	0.1250
1992	360.0	0.1500	0.1500
1986	355.0	0.1750	0.1750
1968	340.0	0.2000	0.2000
1966	310.0	0.2250	0.2250
1989	305.0	0.2500	0.2500
1962	250.0	0.2750	0.2750
1987	250.0	0.3000	0.3000
1967	240.0	0.3250	0.3250
1985	225.0	0.3500	0.3500
1973	200.0	0.3750	0.3750
1980	200.0	0.4000	0.4000
1996	200.0	0.4250	0.4250
1997	200.0	0.4500	0.4500
1998	200.0	0.4750	0.4750
1999	200.0	0.5000	0.5000
2000	200.0	0.5250	0.5250
1977	180.0	0.5500	0.5500
1993	160.0	0.5750	0.5750
1995	150.0	0.6000	0.6000
1984	135.0	0.6250	0.6250
1979	130.0	0.6500	0.6500
1990	120.0	0.6750	0.6750
1974	110.0	0.7000	0.7000
1988	100.0	0.7250	0.7250
1983	87.0	0.7500	0.7500
1981	80.0	0.7750	0.7750
1991	80.0	0.8000	0.8000
1978	70.0	0.8250	0.8250
1976	60.0	0.8500	0.8500
1964	50.0	0.8750	0.8750
1969	50.0	0.9000	0.9000
1982	50.0	0.9250	0.9250
1970	35.0	0.9500	0.9500
1971	10.0	0.9750	0.9750

