

Annual Peak-Flow Frequency Analysis

For more information on the contents of this documentation, see Kessler and others (2013).

**Streamgauge number and name:**

04024110 Rock Creek tributary near Blackhoof, Minn.

**Peak-flow information:**

Number of systematic peak flows in record	26
Systematic period begins	1961
Systematic period ends	1986
Length of systematic record	26
Years without information	0
Number of historical peak flows in record	0

**Frequency analysis options:**

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.036
Standard error of generalized skew	0.426
Low-outlier method	Bulletin 17B Grubbs-Beck test

**Bulletin 17B systematic record analysis results:**

**Moments of the common logarithms of the peak flows:**

	Standard		
Mean	deviation	Skewness	
1.2682	0.3418	0.132	

**Outlier criteria and number of peak flows exceeding:**

Low	2.6	0
High	132.8	0

**Bulletin 17B Final analysis results:**

**Moments of the common logarithms of the peak flows:**

	Standard	
Mean	deviation	Skewness
1.2682	0.3418	0.044

**Annual frequency curve at selected exceedance probabilities:**

Exceedance probability	Peak estimate	Lower-95 level	Upper-95 level
0.9950	2.5	1.3	3.9
0.9900	3.0	1.6	4.6
0.9500	5.1	3.2	7.2
0.9000	6.8	4.5	9.2
0.8000	9.5	6.8	12.5
0.6667	13.2	9.8	17.0
0.5000	18.4	14.2	23.9
0.4292	21.2	16.4	27.8
0.2000	35.9	27.4	50.7
0.1000	51.0	37.7	77.6
0.0400	74.4	52.4	124.0
0.0200	95.1	64.6	169.0
0.0100	119.0	78.0	223.0
0.0050	145.0	92.5	289.0
0.0020	186.0	114.0	397.0

**Peak-flow data used in the analysis:**

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1961	12.0	--
1962	15.0	--
1963	5.8	--
1964	27.0	--
1965	5.9	--
1966	28.0	--
1967	27.0	--
1968	27.0	--
1969	31.0	--
1970	36.0	--
1971	8.7	--
1972	30.0	--
1973	5.5	--
1974	8.7	--
1975	9.4	--
1976	5.3	--
1977	14.0	--
1978	22.0	--
1979	14.0	--
1980	26.0	--
1981	31.0	--
1982	24.0	--
1983	62.0	--
1984	14.0	--
1985	115.0	--
1986	48.0	--