

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05127220 Burgo Creek near Ely, Minn.

**Peak-flow information:**

Number of systematic peak flows in record	11
Systematic period begins	1968
Systematic period ends	1978
Length of systematic record	11
Years without information	0
Number of historical peak flows in record	0

**Frequency analysis options:**

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	0.123
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
1.9402	0.3872	1.364

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

Low	13.5	0
High	560.6	1

**Bulletin 17B Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
1.9402	0.3872	0.370

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

[WIE, Weighted independent estimate; --, not computed]

Exceedance probability	Peak estimate	Lower-95 level	Upper 95 level	WIE estimate	Lower-95 WIE level	Upper 95 WIE level
0.9950	11.9	3.3	23.1	--	--	--
0.9900	14.0	4.2	26.2	--	--	--
0.9500	22.2	8.5	38.0	--	--	--
0.9000	29.0	12.5	47.5	--	--	--
0.8000	40.7	20.3	64.2	--	--	--
0.6667	56.9	32.0	88.5	--	--	--
0.5000	82.5	50.8	132.0	87.3	56.1	136
0.4292	96.8	61.0	159.0	--	--	--
0.2000	181.0	115.0	358.0	181.0	107.0	307
0.1000	281.0	170.0	673.0	269.0	147.0	491
0.0400	462.0	255.0	1,410.0	409.0	206.0	813
0.0200	645.0	333.0	2,340.0	539.0	255.0	1,140
0.0100	880.0	424.0	3,770.0	691.0	310.0	1,540
0.0050	1,180.0	530.0	5,910.0	--	--	--
0.0020	1,690.0	699.0	10,400.0	1,160.0	458.0	2,910

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1968	139	--
1969	75	--
1970	732	--
1971	130	--
1972	41	--
1973	43	--
1974	133	--
1975	44	--
1976	36	--
1977	127	--
1978	47	--