

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05127215 Longstorff 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	0.122
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	
2.0023	0.1774	0.870	

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

Low	42.9	0
High	235.8	0

**Bulletin 17B Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
2.0023	0.1774	0.317

**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	39.7	21.8	53.9	--	--	--
0.9900	42.8	24.5	57.2	--	--	--
0.9500	53.4	34.2	68.4	--	--	--
0.9000	60.5	41.1	76.0	--	--	--
0.8000	71.0	51.6	87.4	--	--	--
0.6667	82.9	63.7	102.0	--	--	--
0.5000	98.4	78.8	122.0	97.7	77.3	124
0.4292	106.0	85.7	133.0	--	--	--
0.2000	141.0	114.0	192.0	142.0	106.0	189
0.1000	172.0	136.0	256.0	176.0	125.0	248
0.0400	214.0	164.0	356.0	226.0	149.0	342
0.0200	249.0	184.0	447.0	268.0	168.0	430
0.0100	286.0	205.0	552.0	316.0	187.0	535
0.0050	325.0	226.0	673.0	--	--	--
0.0020	381.0	256.0	863.0	450.0	236.0	858

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1968	111	--
1969	124	--
1970	230	--
1971	103	--
1972	80	--
1973	95	--
1974	174	--
1975	86	--
1976	61	--
1977	66	--
1978	71	--