

## Annual Peak-Flow Frequency Analysis

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

### Streamgauge number and name:

06603000 Little Sioux River near Lakefield, Minn.

### Peak-flow information:

Number of systematic peak flows in record	15
Systematic period begins	1949
Systematic period ends	1963
Length of systematic record	15
Years without information	0
Number of historical peak flows in record	0

### Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.173
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:

	Mean	Standard deviation	Skewness
	1.8676	0.6809	0.355

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

Low	2.2	0
High	2497.6	1

**Bulletin 17B Final analysis results:**

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

	Standard		
Mean	deviation	Skewness	
1.8676	0.6809	0.006	

**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	1.3	0.2	4.0	--	--	--
0.9900	1.9	0.3	5.5	--	--	--
0.9500	5.6	1.4	13.2	--	--	--
0.9000	9.9	3.0	21.4	--	--	--
0.8000	19.7	7.4	39.4	--	--	--
0.6667	37.5	16.7	72.9	--	--	--
0.5000	73.6	36.5	148.0	102	55.5	188
0.4292	97.4	49.5	204.0	--	--	--
0.2000	276.0	138.0	732.0	309	168.0	567
0.1000	550.0	255.0	1,830.0	515	272.0	974
0.0400	1,150.0	476.0	5,010.0	838	421.0	1,670
0.0200	1,850.0	704.0	9,730.0	1,130	533.0	2,380
0.0100	2,850.0	998.0	17,800.0	1,450	657.0	3,210
0.0050	4,220.0	1,370.0	30,900.0	--	--	--
0.0020	6,790.0	2,000.0	60,800.0	2,360	931.0	6,000

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1949	103.0	--
1950	32.0	--
1951	224.0	--
1952	94.0	--
1953	2,550.0	--
1954	51.0	--
1955	30.0	--
1956	8.2	--
1957	81.0	--
1958	6.0	--
1959	324.0	--
1960	136.0	--
1961	79.0	--
1962	250.0	--
1963	11.0	--