

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

05242700 Little Sand Lake outlet near Dorset, Minn.

Peak-flow information:

Number of systematic peak flows in record	10
Systematic period begins	1932
Systematic period ends	1941
Length of systematic record	10
Years without information	0
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.132
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
1.5797	0.1531	0.666

Outlier criteria and number of peak flows exceeding:

Low	18.5	0
High	77.9	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
1.5797	0.1531	0.072

Annual frequency curve at selected exceedance probabilities:

Exceedance probability	Peak estimate	Lower-95 level	Upper-95 level
0.9950	15.7	8.6	21.0
0.9900	17.0	9.8	22.4
0.9500	21.4	13.9	26.9
0.9000	24.3	16.8	29.8
0.8000	28.2	21.0	34.0
0.6667	32.5	25.6	39.1
0.5000	37.8	31.0	46.1
0.4292	40.3	33.3	49.8
0.2000	51.0	42.3	68.4
0.1000	59.8	48.7	86.4
0.0400	71.0	56.0	112.0
0.0200	79.4	61.2	134.0
0.0100	87.9	66.2	157.0
0.0050	96.4	71.1	182.0
0.0020	108.0	77.5	218.0

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water year	Peak flow	Peak-flow code
1932	24	--
1933	42	--
1934	74	--
1935	43	--
1936	27	--
1937	58	--
1938	42	--
1939	30	--
1940	30	--
1941	33	--