

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

05330900 Nine Mile Creek at Bloomington, Minn.

Peak-flow information:

Number of systematic peak flows in record	10
Systematic period begins	1963
Systematic period ends	1972
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	-0.185
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
2.2892	0.2441	-0.224

Outlier criteria and number of peak flows exceeding:

Low	62.0	0
High	611.1	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
2.2892	0.2441	-0.196

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	41.3	14.4	68.1	--	--	--
0.9900	48.6	18.7	77.2	--	--	--
0.9500	74.9	36.9	108.0	--	--	--
0.9000	93.7	52.0	130.0	--	--	--
0.8000	122.0	76.7	165.0	--	--	--
0.6667	155.0	107.0	208.0	--	--	--
0.5000	198.0	145.0	273.0	204	146	286
0.4292	219.0	162.0	308.0	--	--	--
0.2000	314.0	232.0	502.0	336	236	479
0.1000	395.0	285.0	704.0	437	294	649
0.0400	501.0	346.0	1,010.0	579	365	918
0.0200	581.0	390.0	1,280.0	691	412	1,160
0.0100	663.0	433.0	1,570.0	814	460	1,440
0.0050	746.0	475.0	1,890.0	--	--	--
0.0020	859.0	529.0	2,360.0	1,120	556	2,280

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1963	80	--
1964	199	--
1965	535	--
1966	80	--
1967	210	--
1968	298	--
1969	181	--
1970	209	--
1971	237	--
1972	204	--