

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

05375800 East indian Creek tributary near Weaver, Minn.

Peak-flow information:

Number of systematic peak flows in record	14
Systematic period begins	1962
Systematic period ends	1975
Length of systematic record	14
Years without information	0
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.21
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
	1.0617	0.4037	-0.009

Outlier criteria and number of peak flows exceeding:

Low	1.5	0
High	90.2	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
1.0617	0.4037	-0.140

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	0.9	0.3	1.9	--	--	--
0.9900	1.2	0.4	2.3	--	--	--
0.9500	2.4	1.0	4.1	--	--	--
0.9000	3.5	1.6	5.5	--	--	--
0.8000	5.3	2.9	8.1	--	--	--
0.6667	7.9	4.8	11.8	--	--	--
0.5000	11.8	7.7	18.2	18.0	11.9	27.2
0.4292	13.9	9.2	22.0	--	--	--
0.2000	25.3	16.6	46.6	57.8	39.4	84.8
0.1000	37.4	23.4	78.5	113.0	77.3	166.0
0.0400	56.1	33.0	138.0	226.0	152.0	335.0
0.0200	72.5	40.7	198.0	338.0	222.0	515.0
0.0100	91.0	48.9	274.0	460.0	287.0	736.0
0.0050	112.0	57.7	367.0	--	--	--
0.0020	143.0	70.2	523.0	855.0	475.0	1,540.0

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1962	25.0	--
1963	3.2	--
1964	31.0	--
1965	26.0	--
1966	31.0	--
1967	37.0	--
1968	34.0	--
1969	3.4	--
1970	7.6	--
1971	6.6	--
1972	4.0	--
1973	8.2	--
1974	5.3	--
1975	9.8	--