

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

06482950 Mound Creek near Hardwick, Minn.

Peak-flow information:

Number of systematic peak flows in record	27
Systematic period begins	1959
Systematic period ends	1985
Length of systematic record	27
Years without information	0
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.258
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
	1.5854	0.5340	0.119

Outlier criteria and number of peak flows exceeding:

Low	1.7	0
High	852.0	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
1.5854	0.5340	-0.076

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	1.5	0.5	3.0	--	--	--
0.9900	2.1	0.8	3.9	--	--	--
0.9500	5.0	2.4	8.4	--	--	--
0.9000	7.9	4.2	12.6	--	--	--
0.8000	13.7	8.1	20.8	--	--	--
0.6667	23.0	14.7	33.9	--	--	--
0.5000	39.1	26.2	58.4	53.7	39	73.8
0.4292	48.7	32.9	73.8	--	--	--
0.2000	109.0	71.9	185.0	155.0	110	217.0
0.1000	184.0	116.0	348.0	259.0	176	382.0
0.0400	321.0	188.0	689.0	450.0	285	710.0
0.0200	457.0	256.0	1,070.0	638.0	372	1,090.0
0.0100	628.0	335.0	1,600.0	883.0	474	1,640.0
0.0050	837.0	427.0	2,300.0	--	--	--
0.0020	1,180.0	571.0	3,570.0	1,650.0	742	3,650.0

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1959	99	--
1960	106	--
1961	14	--
1962	88	--
1963	5	--
1964	20	--
1965	88	--
1966	82	--
1967	43	--
1968	5	--
1969	433	--
1970	29	--
1971	31	--
1972	37	--
1973	27	--
1974	5	--
1975	43	--
1976	51	--
1977	85	--
1978	26	--
1979	459	--
1980	79	--
1981	7	--
1982	13	--
1983	26	--
1984	219	--
1985	18	--