

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

04015150 Crow Creek near Silver Creek, Minn.

Peak-flow information:

Number of systematic peak flows in record	16
Systematic period begins	1960
Systematic period ends	1975
Length of systematic record	16
Years without information	0
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	0.5
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
1.6369	0.3008	1.182

Outlier criteria and number of peak flows exceeding:

Low	8.9	0
High	210.2	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
1.6369	0.3008	0.680

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	11.3	5.8	16.9	--	--	--
0.9900	12.3	6.5	18.1	--	--	--
0.9500	16.1	9.4	22.7	--	--	--
0.9000	19.0	11.7	26.3	--	--	--
0.8000	23.9	15.8	32.3	--	--	--
0.6667	30.4	21.3	40.4	--	--	--
0.5000	40.1	29.5	53.7	43.4	31.8	59.4
0.4292	45.4	33.8	61.4	--	--	--
0.2000	75.0	55.9	112.0	85.6	56.7	129.0
0.1000	109.0	78.0	183.0	130.0	79.4	214.0
0.0400	169.0	113.0	331.0	213.0	117.0	389.0
0.0200	228.0	144.0	502.0	298.0	153.0	583.0
0.0100	304.0	181.0	748.0	406.0	195.0	845.0
0.0050	399.0	225.0	1,100.0	--	--	--
0.0020	564.0	296.0	1,790.0	763.0	319.0	1,830.0

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1960	49	--
1961	121	--
1962	21	--
1963	19	--
1964	41	--
1965	23	--
1966	37	--
1967	29	--
1968	51	--
1969	32	--
1970	30	--
1971	30	--
1972	196	--
1973	43	--
1974	154	--
1975	34	--