

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05457080 Rose Creek tributary near Dexter, Minn.

**Peak-flow information:**

Number of systematic peak flows in record	24
Systematic period begins	1962
Systematic period ends	1985
Length of systematic record	24
Years without information	0
Number of historical peak flows in record	0

**Frequency analysis options:**

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.266
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
	2.0014	0.3471	0.463

**Outlier criteria and number of peak flows exceeding:**

Low	14.0	0
High	720.5	1

**Bulletin 17B Final analysis results:**

**Moments of the common logarithms of the peak flows:**

	Standard	
Mean	deviation	Skewness
2.0014	0.3471	0.042

**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	13.2	6.4	21.0	--	--	--
0.9900	16.0	8.3	24.7	--	--	--
0.9500	27.2	16.2	38.8	--	--	--
0.9000	36.2	23.2	49.7	--	--	--
0.8000	51.1	35.4	67.9	--	--	--
0.6667	70.8	51.8	92.6	--	--	--
0.5000	99.8	75.6	132.0	93.4	68.4	127
0.4292	115.0	87.8	153.0	--	--	--
0.2000	196.0	148.0	284.0	176.0	125.0	248
0.1000	280.0	204.0	438.0	242.0	164.0	356
0.0400	411.0	284.0	709.0	335.0	212.0	527
0.0200	527.0	351.0	973.0	414.0	248.0	693
0.0100	660.0	424.0	1,300.0	499.0	282.0	882
0.0050	811.0	504.0	1,690.0	--	--	--
0.0020	1,040.0	621.0	2,340.0	731.0	360.0	1,480

**Peak-flow data used in the analysis:**

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1962	121	--
1963	56	--
1964	21	--
1965	201	--
1966	122	--
1967	86	--
1968	19	--
1969	194	--
1970	41	--
1971	81	--
1972	73	--
1973	135	--
1974	100	--
1975	166	--
1976	97	--
1977	71	--
1978	1,090	--
1979	121	--
1980	96	--
1981	190	--
1982	130	--
1983	125	--
1984	126	--
1985	53	--