

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05078200 Silver Creek tributary at Clearbrook, Minn.

**Peak-flow information:**

Number of systematic peak flows in record	22
Systematic period begins	1960
Systematic period ends	1981
Length of systematic record	22
Years without information	0
Number of historical peak flows in record	0

**Frequency analysis options:**

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.407
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
1.7181	0.2961	-0.305

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

Low	10.0	0
High	273.8	0

**Bulletin 17B Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
1.7181	0.2961	-0.365

**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	7.2	3.4	11.3	--	--	--
0.9900	8.9	4.6	13.6	--	--	--
0.9500	15.9	9.8	22.0	--	--	--
0.9000	21.3	14.2	28.4	--	--	--
0.8000	29.9	21.5	38.4	--	--	--
0.6667	40.4	30.7	51.3	--	--	--
0.5000	54.5	42.6	69.9	57.9	44.6	75.4
0.4292	61.4	48.3	79.8	--	--	--
0.2000	93.6	72.6	131.0	108.0	82.9	141.0
0.1000	121.0	91.8	180.0	148.0	111.0	199.0
0.0400	158.0	115.0	251.0	208.0	147.0	293.0
0.0200	185.0	132.0	308.0	260.0	176.0	383.0
0.0100	212.0	148.0	368.0	320.0	207.0	495.0
0.0050	240.0	164.0	431.0	--	--	--
0.0020	276.0	185.0	518.0	491.0	284.0	848.0

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1960	18	--
1961	20	--
1962	147	--
1963	56	--
1964	45	--
1965	89	--
1966	44	--
1967	123	--
1968	30	--
1969	93	--
1970	62	--
1971	43	--
1972	59	--
1973	152	--
1974	67	--
1975	69	--
1976	48	--
1977	23	--
1978	90	--
1979	91	--
1980	25	--
1981	14	--