

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05474760 Beaver Creek tributary above Slayton, Minn.

**Peak-flow information:**

Number of systematic peak flows in record	25
Systematic period begins	1961
Systematic period ends	1985
Length of systematic record	25
Years without information	0
Number of historical peak flows in record	0

**Frequency analysis options:**

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.23
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
1.7067	0.3133	-0.445

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

Low	8.5	0
High	305.9	0

**Bulletin 17B Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
1.7067	0.3133	-0.323

**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	6.4	3.2	10.0	--	--	--
0.9900	8.0	4.3	12.2	--	--	--
0.9500	14.6	9.1	20.2	--	--	--
0.9000	19.8	13.3	26.3	--	--	--
0.8000	28.1	20.4	36.1	--	--	--
0.6667	38.6	29.4	48.9	--	--	--
0.5000	52.9	41.5	67.7	52.9	40.1	69.9
0.4292	60.1	47.3	77.7	--	--	--
0.2000	94.2	73.2	130.0	97.1	73.3	129.0
0.1000	125.0	94.3	183.0	132.0	97.0	180.0
0.0400	166.0	121.0	261.0	183.0	128.0	263.0
0.0200	197.0	140.0	325.0	226.0	150.0	340.0
0.0100	229.0	160.0	394.0	275.0	174.0	434.0
0.0050	262.0	179.0	467.0	--	--	--
0.0020	307.0	204.0	571.0	404.0	226.0	719.0

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1961	43	--
1962	116	--
1963	56	--
1964	31	--
1965	63	--
1966	50	--
1967	29	--
1968	23	--
1969	137	--
1970	12	--
1971	68	--
1972	15	--
1973	24	--
1974	14	--
1975	103	--
1976	63	--
1977	101	--
1978	40	--
1979	160	--
1980	112	--
1981	55	--
1982	79	--
1983	59	--
1984	94	--
1985	40	--