

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05073800 Perry Creek near Shooks, Minn.

**Peak-flow information:**

Number of systematic peak flows in record	26
Systematic period begins	1960
Systematic period ends	1985
Length of systematic record	26
Years without information	0
Number of historical peak flows in record	0

**Frequency analysis options:**

Method	Expected moments algorithm (EMA)
Skew option	Weighted
Generalized skew	-0.36
Standard error of generalized skew	0.4266
Low-outlier method	Multiple Grubbs-Beck test

**EMA systematic record analysis results:**

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

	Standard	
Mean	deviation	Skewness
1.5345	0.2932	-0.148

**Low-outlier information:**

Number of low outliers	0
Low-outlier threshold	Not determined

**Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
1.5345	0.2932	-0.261

**Annual frequency curve at selected exceedance probabilities:**

Exceedance probability	Peak estimate	Lower-95 level	Upper-95 level
0.9950	5.10	1.02	8.83
0.9900	6.26	1.63	10.20
0.9500	10.80	4.91	15.60
0.9000	14.20	7.94	19.70
0.8000	19.60	12.90	26.30
0.6667	26.20	18.80	34.60
0.5000	35.30	26.30	46.30
0.4292	39.70	30.00	52.40
0.2000	60.80	46.40	84.60
0.1000	79.60	60.00	121.00
0.0400	105.00	76.60	185.00
0.0200	124.00	88.10	248.00
0.0100	145.00	98.50	326.00
0.0050	165.00	108.00	422.00
0.0020	193.00	119.00	585.00

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1960	8.6	--
1961	30.0	--
1962	61.0	--
1963	50.0	--
1964	13.0	--
1965	21.0	--
1966	64.0	--
1967	31.0	--
1968	15.0	--
1969	76.0	--
1970	41.0	--
1971	36.0	--
1972	49.0	--
1973	58.0	--
1974	23.0	--
1975	140.0	--
1976	20.0	--
1977	13.0	--
1978	46.0	--
1979	60.0	--
1980	17.0	--
1981	19.0	--
1982	70.0	--
1983	27.0	--
1984	41.0	--
1985	67.0	--