

## Annual Peak-Flow Frequency Analysis

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

### Streamgauge number and name:

05241500 Rabbit River near Crosby, Minn.

### Peak-flow information:

Number of systematic peak flows in record	18
Systematic period begins	1946
Systematic period ends	1963
Length of systematic record	18
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	-0.21
Standard error of generalized skew	0.4266
Low-outlier method	Single Grubbs-Beck test

### EMA systematic record analysis results:

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

	Standard	
Mean	deviation	Skewness
1.3127	0.3521	-0.482

#### Low-outlier information:

Number of low outliers	1
Low-outlier threshold	5

**Final analysis results:**

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

	Standard		
Mean	deviation	Skewness	
1.3140	0.3484	-0.286	

**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	2.11	0.20	4.36	--	--	--
0.9900	2.70	0.33	5.20	--	--	--
0.9500	5.18	1.20	8.59	--	--	--
0.9000	7.22	2.57	11.40	--	--	--
0.8000	10.60	5.32	16.00	--	--	--
0.6667	15.10	8.97	22.20	--	--	--
0.5000	21.40	13.90	31.60	24.4	17.7	33.9
0.4292	24.70	16.40	36.80	--	--	--
0.2000	40.80	27.80	66.80	43.7	30.9	61.8
0.1000	56.00	37.70	105.00	59.1	40.3	86.6
0.0400	77.30	50.20	181.00	80.3	51.6	125.0
0.0200	94.40	59.00	267.00	96.8	59.3	158.0
0.0100	112.00	67.30	384.00	114.0	66.4	197.0
0.0050	131.00	74.90	545.00	--	--	--
0.0020	157.00	83.80	849.00	156.0	80.9	302.0

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

Explanation of symbols and codes

\* Less than low-outlier threshold

Water	Peak	Peak-flow
year	flow	code
1946	94	--
1947	23	--
1948	11	--
1949	3	*
1950	53	--
1951	29	--
1952	59	--
1953	36	--
1954	25	--
1955	15	--
1956	22	--
1957	21	--
1958	5	--
1959	23	--
1960	16	--
1961	18	--
1962	25	--
1963	12	--