

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05330200 Rice Lake tributary near Montgomery, 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	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.155
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
1.6947	0.3163	-0.175

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

Low	8.0	0
High	306.3	0

**Bulletin 17B Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
1.6947	0.3163	-0.164

**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	6.8	3.5	10.4	--	--	--
0.9900	8.3	4.6	12.4	--	--	--
0.9500	14.5	9.1	19.8	--	--	--
0.9000	19.2	13.0	25.5	--	--	--
0.8000	27.0	19.6	34.6	--	--	--
0.6667	36.8	28.1	46.5	--	--	--
0.5000	50.5	39.7	64.4	51.8	39.3	68.3
0.4292	57.5	45.4	74.0	--	--	--
0.2000	91.9	71.5	127.0	96.8	72.4	129.0
0.1000	124.0	94.0	182.0	134.0	97.1	186.0
0.0400	170.0	124.0	269.0	191.0	131.0	280.0
0.0200	207.0	147.0	344.0	240.0	156.0	370.0
0.0100	247.0	170.0	430.0	296.0	183.0	481.0
0.0050	289.0	194.0	525.0	--	--	--
0.0020	349.0	228.0	667.0	448.0	243.0	826.0

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1960	279	--
1961	33	--
1962	76	--
1963	10	--
1964	18	--
1965	114	--
1966	33	--
1967	67	--
1968	16	--
1969	65	--
1970	27	--
1971	91	--
1972	57	--
1973	67	--
1974	74	--
1975	77	--
1976	29	--
1977	45	--
1978	41	--
1979	113	--
1980	35	--
1981	78	--
1982	16	--
1983	54	--
1984	74	--
1985	62	--