Annual Peak-Flow Frequency Analysis
For more information on the contents of this documentation, see Kessler and others (2013).

Streamgage number and name:

05284620 Rum River tributary near Onamia, 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	-0.27
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:

Mean	Standard deviation	Skewness
1.7554	0.3465	0.609

Outlier criteria and number of peak flows exceeding:

Low	7.7	0
High	419.3	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

Mean	Standard deviation	Skewness
1.7554	0.3465	0.101

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	7.9	4.0	12.2	––	––	––
0.9900	9.4	5.1	14.3	––	––	––
0.9500	15.7	9.6	22.0	––	––	––
0.9000	20.7	13.6	28.1	––	––	––
0.8000	29.0	20.4	38.1	––	––	––
0.6667	39.9	29.6	51.7	––	––	––
0.5000	56.2	43.1	73.2	56.7	42.7	75.2
0.4292	64.8	50.0	85.2	––	––	––
0.2000	111.0	84.4	157.0	113.0	81.5	156.0
0.1000	160.0	117.0	244.0	163.0	112.0	237.0
0.0400	237.0	166.0	398.0	242.0	155.0	380.0
0.0200	306.0	206.0	551.0	313.0	189.0	518.0
0.0100	387.0	251.0	741.0	394.0	224.0	693.0
0.0050	480.0	301.0	975.0	––	––	––
0.0020	624.0	375.0	1,370.0	623.0	311.0	1,250.0

Peak-flow data used in the analysis:

Explanation of symbols and codes

−− none

Water year	Peak flow	Peak-flow code
1960	19	−−
1961	27	−−
1962	80	−−
1963	172	−−
1964	65	−−
1965	96	−−
1966	74	−−
1967	405	−−
1968	40	−−
1969	98	−−
1970	45	−−
1971	55	−−
1972	280	−−
1973	31	−−
1974	19	−−
1975	107	−−
1976	59	−−
1977	20	−−
1978	45	−−
1979	50	−−
1980	23	−−
1981	19	−−
1982	52	−−
1983	44	−−
1984	76	−−
1985	96	−−