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

Streamgage number and name:

05127205 Burntside River near Ely, Minn.

Peak-flow information:

Number of systematic peak flows in record	11
Systematic period begins	1968
Systematic period ends	1978
Length of systematic record	11
Years without information	0
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	0.114
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
2.3900	0.1407	0.081

Outlier criteria and number of peak flows exceeding:

Low	124.8	0
High	482.8	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

Mean	Standard deviation	Skewness
2.3900	0.1407	0.105

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	110	66.2	142	−−	−−	−−
0.9900	118	74.1	151	−−	−−	−−
0.9500	146	101.0	178	−−	−−	−−
0.9000	163	119.0	195	−−	−−	−−
0.8000	187	145.0	220	−−	−−	−−
0.6667	212	173.0	250	−−	−−	−−
0.5000	244	205.0	290	250	207	302
0.4292	259	219.0	310	−−	−−	−−
0.2000	322	273.0	413	334	267	416
0.1000	373	311.0	511	393	303	509
0.0400	438	355.0	648	473	346	646
0.0200	486	386.0	759	537	377	766
0.0100	535	416.0	878	605	407	900
0.0050	584	445.0	1,000	−−	−−	−−
0.0020	650	483.0	1,190	778	474	1,280

Peak-flow data used in the analysis:

Explanation of symbols and codes

−− none

Water year	Peak flow	Peak-flow code
1968	300	−−
1969	235	−−
1970	455	−−
1971	297	−−
1972	230	−−
1973	151	−−
1974	322	−−
1975	244	−−
1976	148	−−
1977	237	−−
1978	214	−−