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

Streamgage number and name:

05348550 Cannon River below Sabre Lake near Kilkenny, Minn.

Peak-flow information:

Number of systematic peak flows in record	26
Systematic period begins	1985
Systematic period ends	2011
Length of systematic record	27
Years without information	1
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.148
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
2.4161	0.2143	-0.307

Outlier criteria and number of peak flows exceeding:

Low	75.8	0
High	896.0	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

Mean	Standard deviation	Skewness
2.4161	0.2143	-0.220

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	66.0	41.9	88.9	−−	−−	−−
0.9900	76.4	50.5	100.0	−−	−−	−−
0.9500	112.0	82.2	139.0	−−	−−	−−
0.9000	137.0	105.0	166.0	−−	−−	−−
0.8000	173.0	140.0	205.0	−−	−−	−−
0.6667	214.0	178.0	251.0	−−	−−	−−
0.5000	265.0	226.0	313.0	262	217	318
0.4292	290.0	247.0	344.0	−−	−−	−−
0.2000	397.0	335.0	493.0	394	323	482
0.1000	484.0	401.0	628.0	485	388	608
0.0400	595.0	481.0	810.0	606	463	792
0.0200	677.0	537.0	952.0	699	514	951
0.0100	758.0	591.0	1,100.0	798	564	1,130
0.0050	839.0	644.0	1,250.0	−−	−−	−−
0.0020	946.0	713.0	1,460.0	1,040	667	1,640

Peak-flow data used in the analysis:

Explanation of symbols and codes

−− none

Water year	Peak flow	Peak-flow code
1985	280	−−
Gap in systematic record		
1987	150	−−
1988	100	−−
1989	116	−−
1990	108	−−
1991	480	−−
1992	305	−−
1993	535	−−
1994	180	−−
1995	272	−−
1996	236	−−
1997	285	−−
1998	440	−−
1999	350	−−
2000	272	−−
2001	563	−−
2002	202	−−
2003	205	−−
2004	413	−−
2005	150	−−
2006	236	−−
2007	352	−−
2008	256	−−
2009	195	−−
2010	389	−−
2011	497	−−