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

Streamgage number and name:

05320270 Little Cobb River near Beauford, Minn.

Peak-flow information:

Number of systematic peak flows in record	15
Systematic period begins	1996
Systematic period ends	2011
Length of systematic record	16
Years without information	1
Number of historical peak flows in record	0

Frequency analysis options:

Method	Expected moments algorithm (EMA)
Skew option	Weighted
Generalized skew	-0.13
Standard error of generalized skew	0.4266
Low-outlier method	Multiple Grubbs-Beck test

EMA systematic record analysis results:

Moments of the common logarithms of the peak flows:

Mean	Standard deviation	Skewness
2.9136	0.3659	0.894

Low-outlier information:

Number of low outliers	0
Low-outlier threshold	Not determined

Final analysis results:

Moments of the common logarithms of the peak flows:

Mean	Standard deviation	Skewness
2.9153	0.3644	0.175

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	109	16.7	210	––	––	––
0.9900	130	25.9	238	––	––	––
0.9500	216	77.8	355	––	––	––
0.9000	285	129.0	455	––	––	––
0.8000	404	219.0	631	––	––	––
0.6667	562	338.0	884	––	––	––
0.5000	803	508.0	1,310	813	545	1,210
0.4292	933	595.0	1,570	––	––	––
0.2000	1,650	1,040.0	3,450	1,670	1,060	2,630
0.1000	2,450	1,470.0	6,780	2,460	1,460	4,120
0.0400	3,760	2,100.0	16,700	3,700	2,000	6,820
0.0200	4,980	2,620.0	33,200	4,810	2,410	9,600
0.0100	6,450	3,170.0	57,200	6,090	2,820	13,200
0.0050	8,200	3,750.0	94,200	––	––	––
0.0020	11,000	4,570.0	180,000	9,720	3,750	25,200

Peak-flow data used in the analysis:

Explanation of symbols and codes

−− none

Water year	Peak flow	Peak-flow code
1996	414	−−
1997	735	−−
1998	669	−−
1999	852	−−
Gap in systematic record		
2001	2,190	−−
2002	263	−−
2003	406	−−
2004	1,630	−−
2005	738	−−
2006	762	−−
2007	956	−−
2008	755	−−
2009	288	−−
2010	5,120	−−
2011	3,380	−−