

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

05288705 Shingle Creek at Queen Avenue in Minneapolis, 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	Bulletin 17B
Skew option	STATION SKEW
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	
2.3038	0.1018	-0.135	

Outlier criteria and number of peak flows exceeding:

Low	118.9	0
High	340.8	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
2.3038	0.1018	-0.135

Annual frequency curve at selected exceedance probabilities:

Exceedance probability	Peak estimate	Lower-95 level	Upper-95 level
0.9950	107	78.4	127
0.9900	114	86.0	134
0.9500	136	110.0	154
0.9000	149	124.0	167
0.8000	166	143.0	184
0.6667	183	162.0	202
0.5000	202	182.0	225
0.4292	211	191.0	236
0.2000	246	221.0	284
0.1000	271	242.0	324
0.0400	300	264.0	372
0.0200	320	278.0	407
0.0100	339	291.0	442
0.0050	357	304.0	475
0.0020	380	319.0	519

Peak-flow data used in the analysis:

Explanation of symbols and codes

K Peak affected by regulation

Water Peak Peak-flow

year flow code

1996 210 K

1997 225 K

1998 169 K

1999 126 K

Gap in systematic record

2001 186 K

2002 222 K

2003 230 K

2004 148 K

2005 291 K

2006 238 K

2007 185 K

2008 166 K

2009 211 K

2010 189 K

2011 301 K