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

Streamgage number and name:
06482910 Rock Creek tributary at County Highway 18 near Hatfield, Minn.

Peak-flow information:

Number of systematic peak flows in record	10
Systematic period begins	2001
Systematic period ends	2011
Length of systematic record	11
Years without information	1
Peak flows not used in analysis	1
Number of historical peak flows in record	0

Frequency analysis options:

Method	Expected moments algorithm (EMA)
Skew option	Weighted
Generalized skew	-0.257
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
1.9944	0.3056	-1.883

Outlier criteria and number of peak flows exceeding:

Low	23.6	1
High	243.0	0

Expected moments algorithm (EMA) Final analysis results:

Moments of the common logarithms of the peak flows:

Mean	Standard deviation	Skewness
2.0500	0.1728	-0.161

Annual frequency curve at selected exceedance probabilities:

Exceedance probability	Peak estimate	Lower-95 level	Upper-95 level
0.9950	NA	NA	NA
0.9900	NA	NA	NA
0.9500	NA	NA	NA
0.9000	NA	NA	NA
0.8000	80.6	50.0	105
0.6667	95.4	66.3	124
0.5000	113.0	84.2	149
0.4292	122.0	91.8	162
0.2000	157.0	121.0	233
0.1000	186.0	142.0	314
0.0400	220.0	165.0	458
0.0200	245.0	180.0	604
0.0100	270.0	194.0	747
0.0050	294.0	206.0	902
0.0020	326.0	220.0	1,140

Peak-flow data used in the analysis:
Explanation of symbols and codes
  −−   none
 NA   Missing peak value
 ∗   Less than low-outlier threshold

Water year	Peak flow	Peak-flow code
2001	186.0	−−
2002	105.0	−−
2003	17.0	∗
2004	206.0	−−
2005	79.0	−−
2006	132.0	−−
2007	127.0	−−
2008	77.0	−−
2009	87.5	−−
2010	NA	NA
2011	144.0	−−