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

Streamgage number and name:

06483050 Rock River tributary near Luverne, Minn.

Peak-flow information:

Number of systematic peak flows in record	14
Systematic period begins	1959
Systematic period ends	1972
Length of systematic record	14
Years without information	0
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.233
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
1.5131	0.5899	-0.264

Outlier criteria and number of peak flows exceeding:

Low	1.6	0
High	658.5	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

Mean	Standard deviation	Skewness
1.5131	0.5899	-0.243

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	0.7	0.1	2.1	––	––	––
0.9900	1.1	0.2	2.9	––	––	––
0.9500	3.2	0.9	6.9	––	––	––
0.9000	5.5	1.8	11.1	––	––	––
0.8000	10.6	4.4	19.7	––	––	––
0.6667	19.0	9.2	34.6	––	––	––
0.5000	34.4	18.4	65.2	34.5	23.9	49.8
0.4292	43.8	23.9	85.9	––	––	––
0.2000	104.0	55.6	252.0	89.4	60.8	131.0
0.1000	179.0	90.3	525.0	149.0	96.4	230.0
0.0400	312.0	145.0	1,140.0	286.0	173.0	473.0
0.0200	443.0	193.0	1,860.0	352.0	195.0	637.0
0.0100	601.0	248.0	2,870.0	538.0	272.0	1,060.0
0.0050	790.0	309.0	4,240.0	––	––	––
0.0020	1,090.0	399.0	6,740.0	828.0	351.0	1,950.0

Peak-flow data used in the analysis:

Explanation of symbols and codes

−− none

Water year	Peak flow	Peak-flow code
1959	180.0	−−
1960	107.0	−−
1961	11.0	−−
1962	152.0	−−
1963	3.8	−−
1964	22.0	−−
1965	163.0	−−
1966	18.0	−−
1967	36.0	−−
1968	3.0	−−
1969	28.0	−−
1970	23.0	−−
1971	146.0	−−
1972	19.0	−−