

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

06603500 Jackson County Ditch Number 11 near Lakefield, Minn.

Peak-flow information:

Number of systematic peak flows in record	12
Systematic period begins	1949
Systematic period ends	1960
Length of systematic record	12
Years without information	0
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.173
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:

	Standard	
Mean	deviation	Skewness
1.6265	0.8035	0.049

Outlier criteria and number of peak flows exceeding:

Low	0.8	0
High	2193.8	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
1.6265	0.8035	-0.104

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	0.3	0.0	1.3	--	--	--
0.9900	0.5	0.0	2.0	--	--	--
0.9500	1.9	0.3	5.9	--	--	--
0.9000	3.9	0.7	10.6	--	--	--
0.8000	9.0	2.4	22.3	--	--	--
0.6667	19.6	6.5	47.2	--	--	--
0.5000	43.7	17.2	112.0	60.3	29.9	121
0.4292	60.7	24.7	165.0	--	--	--
0.2000	202.0	81.7	780.0	174.0	89.1	338
0.1000	444.0	163.0	2,330.0	278.0	140.0	550
0.0400	1,010.0	325.0	7,630.0	434.0	211.0	896
0.0200	1,700.0	497.0	16,500.0	575.0	264.0	1,250
0.0100	2,720.0	721.0	33,000.0	729.0	321.0	1,660
0.0050	4,150.0	1,010.0	61,900.0	--	--	--
0.0020	6,890.0	1,500.0	133,000.0	1,160.0	448.0	3,030

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1949	70	--
1950	3	--
1951	150	--
1952	43	--
1953	1,150	--
1954	26	--
1955	12	--
1956	7	--
1957	198	--
1958	3	--
1959	259	--
1960	63	--