

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05476010 Nelson Creek at Jackson, Minn.

**Peak-flow information:**

Number of systematic peak flows in record	12
Systematic period begins	1964
Systematic period ends	1975
Length of systematic record	12
Years without information	0
Peak flows not used in analysis	1
Number of historical peak flows in record	0

**Frequency analysis options:**

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.158
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
	2.5047	0.3643	0.147

**Outlier criteria and number of peak flows exceeding:**

Low	53.4	0
High	1914.3	1

**Bulletin 17B Final analysis results:**

**Moments of the common logarithms of the peak flows:**

	Standard	
Mean	deviation	Skewness
2.5047	0.3643	-0.064

**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	35.0	9.6	68.5	--	--	--
0.9900	43.7	13.4	81.4	--	--	--
0.9500	79.2	32.3	131.0	--	--	--
0.9000	108.0	50.8	171.0	--	--	--
0.8000	158.0	86.1	239.0	--	--	--
0.6667	224.0	136.0	334.0	--	--	--
0.5000	322.0	211.0	494.0	289	190	438
0.4292	374.0	249.0	589.0	--	--	--
0.2000	649.0	430.0	1,200.0	564	364	875
0.1000	931.0	592.0	1,980.0	788	488	1,270
0.0400	1,360.0	813.0	3,430.0	1,120	651	1,920
0.0200	1,740.0	991.0	4,910.0	1,410	774	2,560
0.0100	2,160.0	1,180.0	6,780.0	1,730	903	3,300
0.0050	2,640.0	1,380.0	9,120.0	--	--	--
0.0020	3,350.0	1,660.0	13,000.0	2,600	1,190	5,690

**Peak-flow data used in the analysis:**

Explanation of symbols and codes

-- none

H Historic, outside of systematic record

Water	Peak	Peak-flow
year	flow	code
1959	2,690	H
1964	166	--
1965	670	--
1966	600	--
1967	412	--
1968	120	--
1969	1,480	--
1970	120	--
1971	542	--
1972	228	--
1973	100	--
1974	542	--
1975	290	--