

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

05261000 Mississippi River near Fort Ripley, Minn.

Peak-flow information:

Number of systematic peak flows in record	36
Systematic period begins	1972
Systematic period ends	2008
Length of systematic record	37
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	
4.1808	0.1758	-0.017	

Outlier criteria and number of peak flows exceeding:

Low	5209.3	0
High	44129.8	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
4.1808	0.1758	-0.017

Annual frequency curve at selected exceedance probabilities:

Exceedance probability	Peak estimate	Lower-95 level	Upper-95 level
0.9950	5,310	3,990	6,490
0.9900	5,880	4,520	7,090
0.9500	7,780	6,340	9,040
0.9000	9,020	7,560	10,300
0.8000	10,800	9,320	12,200
0.6667	12,800	11,200	14,200
0.5000	15,200	13,600	17,000
0.4292	16,300	14,600	18,300
0.2000	21,300	18,900	24,700
0.1000	25,400	22,300	30,400
0.0400	30,700	26,300	38,000
0.0200	34,700	29,300	44,000
0.0100	38,700	32,200	50,200
0.0050	42,700	35,000	56,600
0.0020	48,200	38,800	65,600

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water year	Peak flow	Peak-flow code
1972	22,200	--
1973	12,200	--
1974	27,000	--
1975	24,800	--
1976	12,800	--
1977	5,500	--
1978	14,700	--
1979	28,000	--
1980	14,700	--
1981	10,800	--
1982	26,600	--
1983	11,900	--
1984	15,100	--
1985	17,900	--
1986	21,600	--
1987	11,800	--
1988	9,230	--
1989	15,300	--
1990	12,700	--
1991	13,500	--
1992	10,600	--
1993	16,700	--
1994	17,100	--
1995	13,300	--
1996	21,200	--
1997	32,200	--
1998	12,200	--
1999	24,300	--
2000	10,600	--
2001	31,200	--
Gap in systematic record		
2003	11,500	--
2004	7,540	--
2005	15,400	--
2006	13,900	--
2007	9,730	--
2008	15,000	--