

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05458960 Bancroft Creek at Bancroft, Minn.

**Peak-flow information:**

Number of systematic peak flows in record	26
Systematic period begins	1986
Systematic period ends	2011
Length of systematic record	26
Years without information	0
Number of historical peak flows in record	0

**Frequency analysis options:**

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.225
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
2.5081	0.3052	-0.012

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

Low	55.5	0
High	1869.0	0

**Bulletin 17B Final analysis results:**

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

	Standard		
Mean	deviation	Skewness	
2.5081	0.3052	-0.121	

**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	48.7	26.0	73.5	--	--	--
0.9900	59.0	33.2	86.4	--	--	--
0.9500	99.1	63.8	134.0	--	--	--
0.9000	130.0	89.2	170.0	--	--	--
0.8000	179.0	132.0	228.0	--	--	--
0.6667	241.0	186.0	302.0	--	--	--
0.5000	327.0	259.0	413.0	329	251	429
0.4292	370.0	295.0	472.0	--	--	--
0.2000	584.0	459.0	796.0	596	448	793
0.1000	785.0	600.0	1,140.0	814	591	1,120
0.0400	1,070.0	787.0	1,670.0	1,140	779	1,660
0.0200	1,300.0	932.0	2,140.0	1,410	917	2,160
0.0100	1,550.0	1,080.0	2,670.0	1,720	1,060	2,780
0.0050	1,820.0	1,240.0	3,260.0	--	--	--
0.0020	2,200.0	1,450.0	4,150.0	2,550	1,390	4,670

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1986	160	--
1987	184	--
1988	80	--
1989	475	--
1990	208	--
1991	250	--
1992	215	--
1993	700	--
1994	360	--
1995	160	--
1996	100	--
1997	330	--
1998	441	--
1999	427	--
2000	956	--
2001	1,070	--
2002	126	--
2003	230	--
2004	940	--
2005	343	--
2006	410	--
2007	412	--
2008	413	--
2009	208	--
2010	964	--
2011	388	--