

Annual Peak-Flow Frequency Analysis

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

**Streamgauge number and name:**

05339747 Goose Creek at Harris, 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	Expected moments algorithm (EMA)
Skew option	Weighted
Generalized skew	-0.26
Standard error of generalized skew	0.4266
Low-outlier method	Single Grubbs-Beck test

**EMA systematic record analysis results:**

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

	Standard	
Mean	deviation	Skewness
2.1820	0.3418	-1.410

**Low-outlier information:**

Number of low outliers	1
Low-outlier threshold	32

**Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
2.1854	0.3300	-0.653

**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	13.7	1.23	28.6	--	--	--
0.9900	18.4	2.26	35.3	--	--	--
0.9500	38.8	9.90	62.1	--	--	--
0.9000	55.8	22.10	83.3	--	--	--
0.8000	83.8	46.40	118.0	--	--	--
0.6667	119.0	77.50	162.0	--	--	--
0.5000	166.0	118.00	223.0	167	128	219
0.4292	190.0	137.00	253.0	--	--	--
0.2000	294.0	221.00	404.0	289	223	375
0.1000	379.0	286.00	555.0	372	281	493
0.0400	482.0	358.00	793.0	472	341	654
0.0200	553.0	399.00	1,000.0	541	374	783
0.0100	621.0	431.00	1,240.0	609	401	925
0.0050	684.0	455.00	1,510.0	--	--	--
0.0020	761.0	478.00	1,930.0	758	447	1,290

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

Explanation of symbols and codes

-- none

\* Less than low-outlier threshold

Water	Peak	Peak-flow
year	flow	code
1986	235	--
1987	10	*
1988	38	--
1989	97	--
1990	150	--
1991	286	--
1992	255	--
1993	263	--
1994	165	--
1995	237	--
1996	295	--
1997	270	--
1998	159	--
1999	100	--
2000	32	--
2001	360	--
2002	197	--
2003	241	--
2004	269	--
2005	151	--
2006	342	--
2007	63	--
2008	108	--
2009	110	--
2010	146	--
2011	316	--