

## Annual Peak-Flow Frequency Analysis

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

### Streamgauge number and name:

05352800 Turtle Creek tributary near Steele Center, Minn.

### Peak-flow information:

Number of systematic peak flows in record	26
Systematic period begins	1960
Systematic period ends	1985
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	-0.21
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:

	Mean	Standard deviation	Skewness
	1.9568	0.3802	-0.572

#### Low-outlier information:

Number of low outliers	1
Low-outlier threshold	17

**Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
1.9579	0.3767	-0.341

**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	7.37	0.78	15.2	--	--	--
0.9900	9.74	1.36	18.6	--	--	--
0.9500	20.10	6.32	32.7	--	--	--
0.9000	29.10	12.70	44.6	--	--	--
0.8000	44.50	25.10	65.0	--	--	--
0.6667	65.20	41.70	92.8	--	--	--
0.5000	95.40	65.30	135.0	99.5	72	137
0.4292	111.00	77.20	158.0	--	--	--
0.2000	190.00	135.00	287.0	201.0	146	278
0.1000	266.00	186.00	443.0	285.0	201	405
0.0400	373.00	252.00	742.0	410.0	273	616
0.0200	458.00	299.00	1,060.0	515.0	325	815
0.0100	548.00	341.00	1,470.0	633.0	380	1,060
0.0050	642.00	380.00	2,010.0	--	--	--
0.0020	773.00	423.00	2,970.0	943.0	497	1,790

**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
1960	206	--
1961	369	--
1962	71	--
1963	27	--
1964	79	--
1965	228	--
1966	84	--
1967	114	--
1968	45	--
1969	58	--
1970	45	--
1971	344	--
1972	59	--
1973	235	--
1974	97	--
1975	85	--
1976	52	--
1977	6	*
1978	109	--
1979	139	--
1980	17	--
1981	198	--
1982	135	--
1983	260	--
1984	90	--
1985	75	--