

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

05352700 Turtle Creek tributary number 2 near Pratt, 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	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.217
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
1.7332	0.4072	-0.446

Outlier criteria and number of peak flows exceeding:

Low	5.2	0
High	565.0	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard		
Mean	deviation	Skewness	
1.7332	0.4072	-0.317	

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	3.7	1.5	6.5	--	--	--
0.9900	4.9	2.2	8.4	--	--	--
0.9500	10.7	5.9	16.1	--	--	--
0.9000	15.8	9.6	22.8	--	--	--
0.8000	25.0	16.6	34.5	--	--	--
0.6667	37.7	26.7	51.0	--	--	--
0.5000	56.8	41.8	77.8	56	39.7	79.2
0.4292	67.0	49.5	93.0	--	--	--
0.2000	120.0	87.2	182.0	117	82.4	165.0
0.1000	174.0	122.0	283.0	166	114.0	242.0
0.0400	251.0	168.0	447.0	236	153.0	365.0
0.0200	315.0	204.0	595.0	295	181.0	480.0
0.0100	384.0	242.0	763.0	357	208.0	614.0
0.0050	458.0	281.0	953.0	--	--	--
0.0020	562.0	334.0	1,240.0	523	266.0	1,030.0

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1960	135.0	--
1961	220.0	--
1962	32.0	--
1963	37.0	--
1964	7.3	--
1965	185.0	--
1966	40.0	--
1967	79.0	--
1968	70.0	--
1969	57.0	--
1970	81.0	--
1971	210.0	--
1972	26.0	--
1973	70.0	--
1974	49.0	--
1975	69.0	--
1976	33.0	--
1977	11.0	--
1978	211.0	--
1979	73.0	--
1980	7.8	--
1981	62.0	--
1982	33.0	--
1983	160.0	--
1984	34.0	--
1985	38.0	--