

Annual Peak-Flow Frequency Analysis

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

Streamgauge number and name:

05336300 Moose Horn River tributary at Moose Lake, Minn.

Peak-flow information:

Number of systematic peak flows in record	22
Systematic period begins	1960
Systematic period ends	1981
Length of systematic record	22
Years without information	0
Number of historical peak flows in record	0

Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.201
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
1.8595	0.3621	0.236

Outlier criteria and number of peak flows exceeding:

Low	9.6	0
High	548.3	0

Bulletin 17B Final analysis results:

Moments of the common logarithms of the peak flows:

	Standard	
Mean	deviation	Skewness
1.8595	0.3621	-0.015

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	8.4	3.7	13.9	--	--	--
0.9900	10.3	4.9	16.6	--	--	--
0.9500	18.3	10.3	26.9	--	--	--
0.9000	24.8	15.2	35.1	--	--	--
0.8000	35.9	23.9	48.9	--	--	--
0.6667	50.6	36.0	67.8	--	--	--
0.5000	72.5	53.6	98.1	66.2	48.4	90.5
0.4292	84.1	62.7	115.0	--	--	--
0.2000	146.0	107.0	219.0	133.0	93.4	188.0
0.1000	210.0	149.0	344.0	187.0	126.0	278.0
0.0400	310.0	208.0	564.0	267.0	167.0	426.0
0.0200	398.0	258.0	779.0	333.0	198.0	561.0
0.0100	499.0	311.0	1,040.0	407.0	228.0	728.0
0.0050	612.0	369.0	1,360.0	--	--	--
0.0020	785.0	453.0	1,890.0	604.0	298.0	1,220.0

Peak-flow data used in the analysis:

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1960	27	--
1961	64	--
1962	112	--
1963	17	--
1964	118	--
1965	104	--
1966	64	--
1967	208	--
1968	61	--
1969	83	--
1970	112	--
1971	94	--
1972	479	--
1973	31	--
1974	64	--
1975	70	--
1976	37	--
1977	67	--
1978	52	--
1979	315	--
1980	15	--
1981	70	--