

## Annual Peak-Flow Frequency Analysis

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

### Streamgauge number and name:

05046250 Otter Tail River near Foxhome, Minn.

### Peak-flow information:

Number of systematic peak flows in record	10
Systematic period begins	1990
Systematic period ends	1999
Length of systematic record	10
Years without information	0
Number of historical peak flows in record	0

### Frequency analysis options:

Method	Bulletin 17B
Skew option	Weighted
Generalized skew	-0.21
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
3.0797	0.1501	-0.926

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

Low	594.6	0
High	2427.9	0

**Bulletin 17B Final analysis results:**

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

	Standard	
Mean	deviation	Skewness
3.0797	0.1501	-0.383

**Annual frequency curve at selected exceedance probabilities:**

Exceedance probability	Peak estimate	Lower-95 level	Upper-95 level
0.9950	436	221	602
0.9900	489	265	657
0.9500	657	422	828
0.9000	763	529	936
0.8000	906	682	1,090
0.6667	1,060	841	1,260
0.5000	1,230	1,010	1,500
0.4292	1,300	1,090	1,620
0.2000	1,610	1,340	2,160
0.1000	1,840	1,510	2,610
0.0400	2,100	1,680	3,190
0.0200	2,270	1,790	3,610
0.0100	2,430	1,890	4,020
0.0050	2,580	1,980	4,420
0.0020	2,770	2,090	4,930

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

Explanation of symbols and codes

-- none

Water	Peak	Peak-flow
year	flow	code
1990	690	--
1991	1,140	--
1992	640	--
1993	1,400	--
1994	1,230	--
1995	1,300	--
1996	1,300	--
1997	1,980	--
1998	1,480	--
1999	1,460	--