

**Appendix D**  
**Adjustments to Known, Reported Grizzly Bear Mortality Rates**  
**to Account for Unknown, Unreported Mortality**

There were 15 human caused grizzly bear mortalities in or within 10 miles of the Cabinet Yaak Ecosystem from 1982 through 2002 (21 years) for a rate of 0.71 bears per year. Of these, there were 2 management or research deaths and 2 radio collared unreported mortalities which leaves 11 public reported human caused mortalities. Using the suggested calculation for unreported mortality developed by the NCDE working group on unreported mortality developed in June of 1999 (McLellan et al. 1999):

Total estimated human caused mortality = ((total known human caused mortality - management removals and agency located kills) / correction factor) + management removals and agency located kills.

The unreported mortalities of radio-collared grizzly bears are not added back in because they are part of the portion we are estimating with the correction factor.

Using McLellan et al. 1999 correction factor of 0.5 for 1982-2002:

$$(11 / 0.5) + 2 = 24 \text{ total estimated human-caused mortalities over 21 years or } 1.14 / \text{ year}$$

Based on a population of 30 bears, 1.14 mortalities / year = 3.80 percent

Based on a population of 40 bears, 1.14 mortalities / year = 2.85 percent