

Example of negotiation possibilities showing mort rate vs population size
March 29, 2017

Note: Average “background” number of independent female deaths/year in the DMA from all causes over the past 4 years is 17/year. Thus, for 757 bears at 7.6% F mortality, $20 - 17 = 3$ additional managed F deaths could happen and still have a stable population.

Table 1. Counting all DMA area independent female mortalities - female mortality limits related to population size and rate of mortality. The **red numbers are rates and population size combinations that result in population decline.**

F mortality rate	Population size estimate in the DMA					
	757	800	850	900	950	1000
7.6%	20	21	23	24	25	26
8.0%	21	22	24	25	26	28
8.5%	22	24	25	27	28	30
9.0%	24	25	27	28	30	31
9.5%	25	26	28	30	31	33
10.0%	26	28	30	31	33	35

Table 2. Counting just the state allocation of independent female mortalities (76.5% of the area within the DMA) - female mortality limits related to population size and rate of mortality. The **red numbers are rates and population size combinations that result in population decline.**

F mortality rate	Population size estimate in the DMA					
	757	800	850	900	950	1000
7.6%	15	16	17	18	19	20
8.0%	16	17	18	19	20	21
8.5%	17	18	19	20	22	23
9.0%	18	19	20	22	23	24
9.5%	19	20	22	23	24	25
10.0%	20	21	23	24	25	27