IBMP Briefing Statement

Agency: Yellowstone National Park

Issue: Winter Severity Indices Before and After 2000

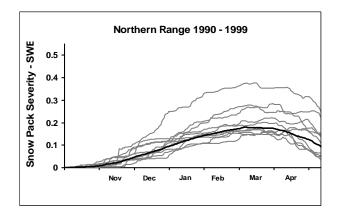
Date: August 28, 2008

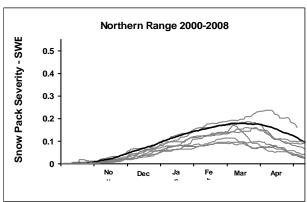
Background:

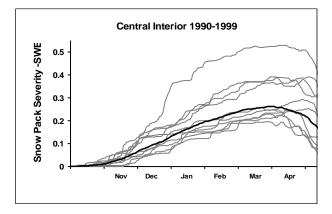
Many of the implementation details for the IBMP were premised on the National Research Council's
conclusion (1998) that higher winter snow packs result in higher probabilities of bison migrating to
lower-elevation winter ranges in and outside of YELL.

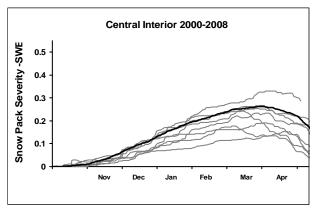
Current Status:

• Since the IBMP implementation period began in 2000, snow water equivalent estimates (SWE; i.e., the water content of a column of snow) indicate most winters (gray lines) have been milder than the average during 1988-2008 (bold line). In contrast, winter severity indices during the 10-year period prior to 2000 varied widely above and below the 20-year average. Snow pack in the central interior of YELL is consistently higher than on the northern range.









Note: Snow-water equivalents were estimated using a validated snow pack model derived from temporally dynamic precipitation and temperature data, and spatially explicit slope, aspect, elevation, ground heat, vegetation cover type and mean annual precipitation data (Watson et al. 2006, 2007).

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