

---

# DRAFT IBMP MANAGEMENT OBJECTIVES FOR HORSE BUTTE

September 8-9, 2008

**Goal #1: Increase tolerance for bison outside of the west side of YNP with no undesirable consequences (e.g., transmission of brucellosis from bison to cattle, negative impacts on public safety).....2**

Objective 1.1: Control, with tolerances, the timing and number of bison allowed outside the western boundary of YNP. ....2

Objective 1.2: Manage bull bison to reflect their lower risk of transmission of brucellosis to cattle. ....3

Objective 1.3: Employ hazing as a non-lethal tool for bison management in spring.....3

Objective 1.4: Increase landowner tolerance to bison outside YNP via improved relations, education, and involvement in decision making process.....3

**Goal #2: Conserve a wild, free-ranging bison population. ....4**

Objective 2.1: Manage bison population to reflect conservation thresholds that maintain genetic integrity of the population—in the short term based on best biological estimates, in the long term based on genetic and other research. ....4

Objective 2.2: Minimize bison slaughter by employing alternative management techniques. ....5

**Goal #3: Protect against the transmission of brucellosis from bison to cattle. ....6**

Objective 3.1: Employ vaccinations for bison and cattle to protect against brucellosis transmission. ....6

Objective 3.2: Limit to 0 the number of cattle/bison interactions (no contact), with an emphasis on period of potential bison abortion.....6

Objective 3.3: Employ fencing when and where appropriate to separate bison from cattle. ....7

Objective 3.4: After April 1, haze bison while outside YNP to maintain spatial separation from cattle. ....7

---

**Goal #1: Increase tolerance for bison outside of the west side of YNP with no undesirable consequences (e.g., transmission of brucellosis from bison to cattle, negative impacts on public safety).**

**Objective 1.1: Control, with tolerances, the timing and number of bison allowed outside the western boundary of YNP.**

(was increase tolerance 1, 4[partial] )

- *Management activity 1.1.a:* Using guidance from the table below, in the **short term** allow ~~untested~~ bison to migrate onto and occupy the area of Horse Butte peninsula between the south arm of Hebgen Lake and Grayling Creek each winter and spring (Conservation = High; Disease Prevention = High; Steps in ROD 1-3 (p. 26)). In the **long term** allow for ~~up to 300 untested~~ bison on Horse Butte Peninsula and Flats (generally north of South Fork Madison, south of Cougar Creek, and west of Highway 191) allow for year-round tolerance of bison because this area does not have cattle grazing within it or nearby (ROD, pg 10).
  - *Monitoring:* Weekly counts of # of bison on Horse Butte and at Madison Arm Resort
  - *Monitoring:* For #s of bison crossing Narrows; zero tolerance in the short term—triggers hazing?
  - *Monitoring (long term):* Determine natural migration routes and timeframes (in absence of hazing) back into the Park. Use this information to inform threshold values and dates in table below.
  - *Monitoring (long term):* Track # of animals at Horse Butte vs # of management activities needed; keep year to year record as basis for potential future metric
  - *Modeling:* Create density curve showing threshold # of bison on Horse Butte that result in push of bison to S Fork Madison area; use this work to set maximum #s at Madison Arm Resort before instituting management activities
  - *Metric:* If number of bison on Horse Butte exceeds agreed upon level, institute management activities at Horse Butte and/or Madison Arm Resort.

**Table 1. Guidelines for Bison Management on West Side of YNP**

Sero-testing status	# bison allowed on Horse Butte before active management instituted to move them back into YNP	# bison allowed at Madison Arm Resort prior to active management to keep bison from reaching private lands on south side of the S Fork of the Madison River	Short term	Long term
			For all bison, required return date to within Park boundaries (potential flexibility in the ROD already)	
tested	____(more)	____(more)		
untested	____(less)	____(less)		
<i>Bison bulls—regardless of sero-testing status—see Objective 1.2</i>				

- *Management activity 1.1.b:* Pursue agreement with all landowners who graze on private land in Hebgen Basin to delay turnouts of domestic livestock until July 1
  - *Method:* Provide financial incentives (working with NGOs?) for altering the timing of cattle operations.
  - *Metric:* Yearly record the onset of grazing at all active grazing operations in the Hebgen Basin.
- ~~*Management activity 1.1.c:* Allow bison in Zone 2 in excess of 100. Manage numbers based on weather and timing. IBMP Partners will develop a monitoring protocol, including staffing and budget, to determine the upper limit or threshold for bison numbers on Horse Butte.~~

**Adaptive management record for Objective 1.1**

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
------	---	----------------------------------

(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Objective 1.2: Manage bull bison to reflect their lower risk of transmission of brucellosis to cattle.**  
(was increase tolerance 2)

- *Management activity 1.2.a:* Allow male bison to migrate onto and occupy suitable habitat areas in the Hebgen Basin (within the agreed-upon perimeter for Zone 2) each winter and spring or year round (Conservation = High; Disease Prevention = High; Steps 1-3 (p. 26)). Avoid hazing or removing bull bison from the West Yellowstone basin unless they are an imminent threat to human safety or property.
  - *Monitoring:* Weekly count of bull bison in west side Zone 2
  - *Metric:* Threshold limit for bison count to begin active management activities

*Adaptive management record for Objective 1.2*

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Objective 1.3: Employ hazing as a non-lethal tool for bison management in spring.**

(was increase tolerance 3, population conservation 4)

- *Management activity 1.3.a:* If necessary, haze bison from the Horse Butte peninsula into Yellowstone National Park no earlier than May 15 and no later than June 15 each spring, with the actual beginning date based on weather (e.g., green-up, snow pack), cattle turn-out dates, and consideration of the bison’s natural migration back into the park (Conservation = High; Disease Prevention = Medium; Steps 1-3 (pp. 11-13, 32)). Use non-motorized and limited motorized techniques (ATVs and snowmobiles) to the extent possible, based on herd dispersal and snow-pack conditions. Helicopter movement would only be used in specific circumstances as defined by the IBMP Partners and included in the Operating Procedures.
  - *Monitoring:* Annually review and apply persistence information, private land turn-on dates, and applicable research results to determine haze back to habitat timeline.

*Adaptive management record for Objective 1.3*

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Objective 1.4: Increase landowner tolerance to bison outside YNP via improved relations, education, and involvement in decision making process.**

(was increase tolerance 4, 5; disease transmission 6)

- *Management activity 1.4.a:* Work with landowners and NGOs to provide more conflict-free habitat for bison in the Hebgen Basin, while protecting human safety and property (Conservation = High; Disease Prevention = High; Steps 1-3). Along with 1.4.b, explore both short- and long-term options with land owners to prevent commingling, including conservation easements, stocking less-susceptible cattle (e.g., sterilized), and assisting with management plans, testing, and wildlife-proof fencing for cattle.
  - *Monitoring:* Create yearly record of 1) number of acres made available to bison from conservation easements; 2) number and type of cattle grazed in Hebgen Basin; 3) number of feet of wild-life proof fencing being employed to separate bison from cattle.
- *Management activity 1.4.b:* Permanently decrease grazing in the Hebgen Basin by 1) retiring public (USFS) allotments in West Yellowstone basin and 2) purchasing private grazing rights.
  - *Method1:* Annually review and modify zone boundaries as per land management and ownership changes;
  - *Method2:* GNF—1) Complete suitability and capability analysis on allotments to determine if some could be permanently closed; and/or 2) Annually review permits to determine possible allocation changes warranted (e.g., more to wildlife or recreation or timber harvest, less to grazing); and/or 3) Annual analysis of permits to determine if changes in type stock, timing of stock, # of stock can be modified
  - *Metric:* Yearly track number of acres under active or in-active grazing allotments, both public and private.

**Adaptive management record for Objective 1.4**

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Goal #2: Conserve a wild, free-ranging bison population.**

**Objective 2.1: Manage bison population to reflect conservation thresholds that maintain genetic integrity of the population—in the short term based on best biological estimates, in the long term based on genetic and other research.**

(was population conservation 1)

- *Management action 2.1.a (short term):* Prior to completion of genetic diversity testing (2.1.b), manage bison population in and near Yellowstone National Park within a range of 2,500-4,500 (Conservation = High; Disease Prevention = Medium; Steps 2 and 3 (IBMP memo adjusting ROD; November 20, 2006)).
  - *Monitoring:* complete yearly(?) bison population census.
  - *Metric:* Actions if bison population is below 2500 then ... (utilize bison conservation and risk management techniques).
  - *Metric:* Actions if bison population is above 4500 then ... (utilize bison conservation and risk management techniques)
- *Management action 2.1.b (long-term):* Complete assessment of how genetic integrity of Yellowstone bison may be affected by lethal removals through trapping or hunting. Establish threshold for limited or no lethal removals based on the results of genetic diversity assessment and change desired population range under 2.1.a, accordingly.
- *Management action 2.1.c (long-term):* Develop a joint research strategy agreed to by the interagency partners focusing on understanding bison population conservation thresholds and the implications to risk management activities. Use results to refine conservation population estimate in 2.1.a.

**Adaptive management record for Objective 2.1**

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Objective 2.2: Minimize bison slaughter by employing alternative management techniques.**

(was population conservation 2, 3)

- **Management action 2.2.a:** Decrease consignment of seronegative bison to slaughter by enhancing the use of management tools such as hazing to habitat, hunting, quarantine, and shipping bison to alternate, isolated destinations (e.g., tribal lands, conservation reserves) (Conservation = High; Disease Prevention = Medium; Steps 2 and 3 (pp. 17, 27; MFWP Hunting EA)).
  - *Monitoring:* Weekly count of seronegative bison sent to slaughter
  - *Possible Metric:* When weekly count exceeds \_\_\_ then increase the use of (and resource allocation to) other management activities until weekly count falls below threshold level.
- **Management action 2.2.b:** Emphasize management of bison as wildlife and increase the use of state and treaty hunts outside Yellowstone National Park to manage bison numbers and demographic rates, limit the risk of brucellosis transmission to cattle, and protect human safety and property (Conservation = Medium; Disease Prevention = High; Steps 2 and 3 (p. 17; MFWP Hunting EA)). Develop a hunting strategy, including combined harvest thresholds, with state and tribal hunters that ensure population conservation. Consider expanding hunting opportunities to address population concerns where applicable.
  - *Monitoring:* Number of bison taken via state and treaty hunts each year
  - *Possible Metrics:* 1) Set take limit based on demographics. 2) Set take limit to increase each year for multiple years thus increasing hunt as a % of overall yearly mortality (i.e., versus slaughter). 3) Increase length of hunting season to increase likelihood of filling tag.

**Adaptive management record for Objective 2.2**

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Goal #3: Protect against the transmission of brucellosis from bison to cattle.**

**Objective 3.1: Employ vaccinations for bison and cattle to protect against brucellosis transmission.**  
(was prevent disease transmission 1, 4)

- *Management action 3.1.a:* Vaccinate, mark (e.g., pit tags), and release eligible bison (i.e., calves, non-pregnant females) captured near the boundary of Yellowstone National Park after state and treaty hunting seasons end each winter and spring (Conservation = Medium; Disease Prevention = High; Steps 1- 3 (pp. 12-13, 26)).
  - *Monitoring:* Keep records of number of eligible bison captured and vaccinated.
- *Management action 3.1.b:* Test all cattle coming into the basin annually and vaccinate all calves, with booster vaccinations of adults as deemed appropriate by the Montana Department of Livestock (Conservation = Low; Disease Prevention = High; Steps 2 and 3 (pp. 31-32)).
  - *Monitoring:* Determine vaccination status of all cattle in the Hebgen Basin in (month?).
  - *Metric:* If vaccination status is not 100%, undertake vaccinations to achieve 100% status.

*Adaptive management record for Objective 3.1*

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Objective 3.2: Limit to 0 the number of cattle/bison interactions (no contact), with an emphasis on period of potential bison abortion.**

(was prevent disease transmission 2)

- *Management action 3.2.a:* Maintain spatial and temporal separation of bison and cattle outside Yellowstone National Park during the likely abortion period for bison (February through June) each year (Conservation = High; Disease Prevention = High; Steps 1-3 (pp. 10-11)). See Table 1.
  - *Metric:* 20 day separation between bison off and cattle onto landscape

*Adaptive management record for Objective 3.2*

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Objective 3.3: Employ fencing when and where appropriate to separate bison from cattle.**

(was prevent disease transmission 3)

- *Management action 3.3.a:* Use limited, strategically place fencing when and where it is effective to create separation between domestic livestock and bison, and when that same fencing will not represent a major wildlife movement barrier. In particular, use creative fencing, stocking, and cost-sharing solutions to prevent commingling of bison and cattle at the Povah, Red Creek, Koelzer, and other cattle operations in the Hebgen Basin.
  - *Monitoring:* Track miles of fencing installed and resulting increase of acreage available to bison that results.

*Adaptive management record for Objective 3.3*

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	

**Objective 3.4: After April 1, haze bison while outside YNP to maintain spatial separation from cattle.**

(was prevent disease transmission 5)

- *Management action 3.4.a:* After April 1, move bison within the agreed-upon Zone 2 perimeter of the western boundary area to habitat sufficiently distant from cattle operations using minimally intrusive hazing techniques (e.g., horseback) (Conservation = Medium; Disease Prevention = High; Steps 1-3 (p. 23)).
  - *Monitor:* Distance of bison from cattle operations.
  - *Metric:* Set threshold distance for instituting bison hazing operations.

*Adaptive management record for Objective 3.4*

Date	Monitoring evaluation results vs metrics set to trigger	Management action (if any) taken
(1 <sup>st</sup> review)	(results)	
(2 <sup>nd</sup> review)	(results)	
(etc)	(etc)	