

Summary Report from the Interagency Bison Management Plan Meeting August 3, 2016



First draft presented 5 August 2016 by meeting facilitator Scott Bischke

The following summary report reflects activities at the August 3, 2016 meeting of the Interagency Bison Management Plan (IBMP) Partners, held at the Homewood Suites in Bozeman, MT. This report comes from the flip chart notes of facilitator Scott Bischke¹. The report will be marked “Draft” until formal Partner agreement before the start of their next meeting. The nine Partner attendees were Don Herriott (APHIS), Leonard Gray (CSKT), Ervin Carlson (ITBC), Mike Honeycutt (MBOL), Martin Zaluski (MDOL), Sam Sheppard (MFWP), Amanda Rogerson (NPT), Daniel Wenk (NPS-YNP), and Mary Erickson (USFS-CGNF). In addition to those at the deliberative table, ~25 staff members from across IBMP organizations and ~30 members of the public were present at various times during the day.

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Action items identified

Table 1.—Action items identified during this meeting

#	Who	What	By when
1	SB	Post the Apr 2016 meeting report to the website as final	ASAP
2	MDOL, all Partners	MDOL to write and drive completion of 2016/17 Winter Operations Plan, including soliciting and taking input from all Partners	First draft of each document out to Partners ~Aug 10
4	MDOL	Write and drive completion of 2016 Annual Report, including soliciting and taking input from all Partners	~Aug 10
3	SB, MDOL	The Partners assigned the facilitator to work with MDOL to incorporate the ERRATUM information into the IBMP Adaptive Management Plan, then repost it to the website.	ASAP

Agreeing to previous meeting minutes

The meeting started with introductions of Partners, staff, and all members of the general public in attendance, followed by a short review of IBMP history. Then the facilitator asked if there were any objections or changes to the draft meeting report from the April 2016 meeting, and noted the report has been available in draft for review since shortly after that meeting. No objections were brought forth. Thus the facilitator, per Partner Protocols, is to post the April 2016 meeting notes to IBMP.info as “final” (** action item 1).

2015-2016 Winter Operations summary

End of season overview, including distribution (MDOL)

MZ reported that a major step in the last few months was to begin implementing (i.e., operating under) Governor Bullock’s EA decision for increased bison tolerance. The EA decision, as described in the meeting notes of the April 2016 IBMP meeting, was incorporated into the IBMP Adaptive Management Plan by signature loop completed on May 6, 2016. It was then incorporated by reference into their Winter Operations Plan; given how late in the season the EA decision was applied the 2016 Winter Operations Plan was not rewritten.

MZ noted that another item that came up in implementing the Governor’s EA decision was confusion in the geography and timing limits described under the EA. An Erratum to the EA was published in June 2016 to address this confusion. (Facilitator’s note: That Erratum can be found on the Adaptive Management page of the IBMP website — <http://www.ibmp.info/adaptivemgmt.php>.)

RT reported that it had been a quiet year overall. MDOL did not participate in any hazing operations on the north side. It participated in 4 hazing operations on the west side. All 4 operations were in Zone 3, private lands situations, all in the South Fork of the Madison area. No bison were moved back into YNP this year. Instead they generally stayed in the Horse Butte area.

Overall removals versus Plan (MDOL)

Hunt removals.—AJ provided the Partners with a table showing the current compiled 2015/16 hunt results, noting that a total of 384 bison were harvested by hunters. AJ went through the numbers taken by each treaty hunting tribe, as well as state hunters. Those data are shown in Table 2. (Facilitator’s note: hunt summaries are regularly updated on the IBMP website; see <http://www.ibmp.info/library.php> and click on the pull down titled “Risk Management Action Reports.”)

Table 2.—2015-16 Bison Hunt Harvest Log

2015-16 HD-385 Bison Hunt Harvest Log (GARDINER)

	Male	Female	(M) Calf	(F) Calf	Unknown	
	143	131	36	46	4	total bison taken ... 360
STATE	23	3	0	0	0	State ... 26
CSKT	71	70	14	16	0	CSKT ... 171
NP	26	23	19	17	4	NP ... 89
SB	10	10	0	0	0	SB ... 20
CTU	13	25	3	13	0	CTU ... 54

2015-16 HD-395 Bison Hunt Harvest Log (WEST)

	Male	Female	(M) Calf	(F) Calf	Unknown	
	11	4	0	9	0	total bison taken ... 24
STATE	2	1	0	0	0	State ... 3
CSKT	8	3	0	9	0	CSKT ... 20
NP	1	0	0	0	0	NP ... 1
SB	0	0	0	0	0	SB ... 0
CTU	0	0	0	0	0	CTU ... 0

2015-16 Bison Hunt Harvest Log (TOTALS)*

	Male	Female	(M) Calf	(F) Calf	Unknown	
	154	135	36	55	4	total bison taken ... 384
STATE	25	4	0	0	0	State ... 29
CSKT	79	73	14	25	0	CSKT ... 191
NP	27	23	19	17	4	NP ... 90
SB	10	10	0	0	0	SB ... 20
CTU	13	25	3	13	0	CTU ... 54

*These totals do not include bison that were removed by agents after wounding and/or retreat to Yellowstone Nat'l Park. The additional bison in this category are presumed to number between 30 and 50 animals.

Little migration was noted into the west unit, hence the lower numbers harvested there. RW noted that most of those bison that were out on the west side returned to the Park by mid-June. The lack of west side migration, however, led to crowding on the north unit as many hunters from the west side then went to the north side where more bison were available to hunt. Bison migration out of the Park—and hence availability for hunting—largely occurred between January 1 and March 1.

Jodie Canfield reported that the CGNF monitored bison for the first time and found 11 bison and 2 calves in the Hebgen Basin as of July 27. By request from the Partners Jodie provided the CGNF counts to the facilitator. The reports are posted at the meeting website.

SS noted that an additional 18 animals were put down. Additionally there were other wounded animals (one report from NPS was 20-30) that could not be found. RW noted that some of these animals likely move back in the Park and die, some that may be found, others not.

Total removed from the hunt and trap, based on several members of the Partners and staff doing quick calculations, was ~584 animals.

Culls, transfer of bison to processing and research facilities

By Partner agreement in their 2015/16 Winter Operations Plan, no bison were captured until February 15th in hopes of allowing more bison to come out of the Park and be available for the hunt.

RW reported that 150 animals were caught in the Stephen's Creek trap. Distribution of those animals was as follows: 97 to ITBC, 4 to the Northwestern Band of the Shoshone Nation, and 49 retained at Stephens Creek.

JS said that ITBC distributed meat to 32 tribes, which was used in such programs as school lunches. TM requested that in the future bison only be transferred to treaty hunting tribes. No bison were transferred to research facilities.

Hunt planning meeting outcome

The May hunt planning meeting, all agreed, had a high focus on safety. The principal area of concern, as it has been in past years, was the crowding of hunters in the Beatty Gulch area. SS noted that at times there were simply too many people with too many guns in too confined an area. No one disagreed.

Parties agreed that there was good cooperation and communication between law enforcement personnel from the sovereign nations and state of Montana in 2015/16 and that they would strive for the same or better in the year ahead. For the coming year, the hunting groups are talking about having a dedicated radio frequency set aside for law enforcement communication. It is thought that such a process would be more efficient than the use of cell phones.

Parties also agreed that at least two factors—(1) limited number of bison out on the west side, and (2) closing the hunt periodically in hopes of allowing more bison to move away from Park boundary—resulted in hunter crowding and, at times, dangerous conditions.

All agreed—or at least no dissent was put forth—to the ideas that (a) having wounded animals was troubling and something they did not find acceptable, and (b) our goal for the hunt is to further improve safety, quality, and number of animals harvested. Everyone also agreed that the “clean zone” concept had been a success (i.e., harvesting and cleaning bison to meet a declared, regulated distance away from houses and roads).

Some discussion was put forth in the hunt meeting about an idea to show when the hunt was on and when it was paused, for example because of hunters cleaning animals in the vicinity. The notification process could be as easy as a large red flag lifted to signify that the hunt was on.

TM said that the CSKT propose that the Partners move back to a rolling, progressive capture for the 2016/17 season and not impose the no-capture-until-after-Feb15 rule. Other hunting groups agreed; no verbal case to retain the rule was put forth.

RW asked about increasing habitat and bison distribution as a way to help alleviate pressure. He noted that there is strong support in the public for both ideas. Carl S noted bison still did come out during the hunt, and thus better coordination between groups could help. He also noted that even if the bison seek to migrate out of the park on the west side, the thick lodge pole forests there hinder that migration (elsewhere there has been regular discussion about the potential of using fire to open up west side habitat). MZ noted that due to the limited grass in the Gardiner basin just having bison spread out further in the northern range would not necessarily alleviate the problems habitat availability.

Possible adjustments for next winter (all Partners; see also afternoon Adaptive Management item)

This item was delayed for discussion until the section at 10:20 on the agenda titled “Adaptive management proposals.”

Discussion and preparation of 2016-2017 IBMP Winter Operations Plan

Bison harvest planning

PJ provide the NPS overview of the bison population situation. PJ’s talk is provided on the meeting page of the IBMP website (<http://www.ibmp.info/Library/20160803/20160803.php>), and is largely copied below.

- Goals for winter operations 2015/16
 - Manage for a decreasing population (~4,900-5,000)
 - Primarily use hunting for removals
 - Capture/cull after February 15, if necessary

- Outcomes of winter operations 2015/16
 - Little to no decrease in population after calving (~4,800-5,200)
 - Hunting, by itself, has not been sufficient to limit population growth

- Culling doesn't consistently reach removal objectives due to variable annual migrations
- Carrying capacity
 - Coughenour (2005): Capacity for 3,200 bison in northern Yellowstone with 5,000 elk
 - Currently at ~3,400-3,600 bison and >5,000 elk
 - Grass consumption exceeded 70% in some areas of the Lamar Valley (2012-2016)
- Assessment
 - Further increases in numbers (north) are not sustainable without a larger distribution
 - Currently, hunting cannot be the only tool used to reduce bison numbers
 - Other tools (e.g., hunting pastures, quarantine, and slaughter) are necessary
 - Remove more bison during harder winters with larger migrations to boundary
 - Positive community relations are important
 - Need objectives for both conservation and conflict resolution
- 2016-2017 Operations
 - Reduce numbers to <3,000 bison on northern range
 - Allow bison to distribute on landscape and hunt where feasible and responsible
 - Cull 50-100 bison per week for meat, quarantine, and research
 - Implement larger culls if larger migration (<25% of population)
- Alternate tools
 - Help meet management objectives by providing meat and live bison to tribes

Table 2.—Method and number of bison removal between 2011 and 2016.

2011 - 2016	MT	CSKT	Nez Perce	ShoBan	CTUR	ITBC	APHIS	Other
Removed (2,343)	181	1005	434	39	179	359	120	26
Harvest (58%)	13%	39%	32%	3%	13%	0	0	0
Culled (42%)	0	49%	0	0	0	36%	13%	2%

PJ described that the bison population is hovering around 5000 with little or no decrease. Culling depends on the number of bison coming out of the Park, and hunting has not proven able to control the population. We need more tools, including helping bison better distribute across the landscape which we could do, he said, if we treated them more like elk (Table 2).

SS said that he agreed with all that was presented. He said the Partners need to work hard to avoid a large-removal as happened several years back. We may need to do more than simply manage for decreasing populations. He stated agreement that waiting to use the trap until Feb 15 did not work.

Some discussion ensued about better utilizing the west side should bison populations continue at their current levels, or grow. Partners and staff discussed that bison have shifted for some unknown reason from the Central herd to the Northern herd, resulting in fewer animals coming out the west side. There was some discussion of capturing bison and trucking them to the west side. SS said such a movement might be allowed by

the state, but would require an environmental assessment; also there would need to be a review of state laws already in place to assure compliance. PJ noted that NPS policy is for minimum intervention, except at the boundary (i.e., Stephen's Creek capture facility), and also that frightening or driving wildlife from the park for hunting or other reasons is prohibited by the Lacey Act of 1894 ("Protection of Game in Yellowstone National Park"). The Park, DW said, seeks to maintain natural processes.

Others suggested that bison migrations moved away from the west side because of the initial great intolerance to them leaving that side of the park. Not all agreed with that assessment, noting that there have been big operations to move bison back into the Park from the north side, as well.

Another opinion put forth was that over time bison would begin to migrate more heavily toward the west side again, given new increased tolerance allowed by the Governor's EA decision. We need to give them time to find these pathways. For example, hunters should not be allowed to kill animals that explore new pathways and new landscapes as they can then bring that knowledge back to the herd for future migrations.

Still another idea, one regularly mentioned, was to use controlled fire manipulations to improve habitat. For example, fire might be used to clear some of the dense lodge pole forests on the west side, thereby bringing back grasses for forage and opening areas for easier migration. A counter to that idea is that the central interior of YNP has had lots of fire and has lots of good grass, yet is not currently being highly utilized by bison.

Transfer of bison away from capture facilities

A summary statement by PJ covered much of the discussion: We are learning as we go. We have never had this many bison in the Park since it became a Park so we just don't know for sure why the bison are behaving and migrating as they are.

A separate discussion was held with respect to setting the priority of captured bison for research (largely then to APHIS). This discussion did not have a clean culmination, though all recognized it would be addressed for the 2016/17 season (meaning for the year, not as a policy) in the Winter Operations Plan for 2016/17. Many questions were posed from many angles, again without significant agreement or consensus as to the answers. Some of those questions are provided below:

- Is research an IBMP priority?
- When is research an IBMP issue and decision, versus a two group (e.g., NPS and APHIS) issue/decision?
- Can the current animals still being held in the Stephen's Creek facility be transferred to the Colorado State University (CSU) bison research program? There is an outstanding request.
- If they can be transferred there, across state lines, why can't they be transferred to the Fort Peck quarantine facility within Montana? What is the process that allows bison to be transferred across state lines?
- What will be the outcome of the NPS Quarantine EA and how does that impact the bison still being held at Stephen's Creek?
- If bison are sent to CSU, could they later be harvested and the meat provided to tribal groups or others as part of the understanding?
- Could the requested APHIS-related embryo work have been done with animals taken to slaughter (i.e., embryo harvest)?
- Does everyone recognize that research efforts typically support conservation efforts?
- Should this issue—how to prioritize allocation of captured bison to research—be brought to the Partners as an adaptive management proposal?

Preparation of the 2016/17 Winter Operations Plan

- Lead Partner MDOL responsible, with Dr. Emily Kaleczyc acting as project lead
 - 1st draft expected to be delivered to Partners on ~Aug 10
 - Partner edits back by Sep 10
- MDOL will report back on progress and any remaining items at the Dec 1 IBMP meeting
- Completion deadline for the Winter Ops Plan is Dec 31, 2016
- The document requires sign off by Partners

****Action item 2**:** MDOL to write and drive completion of 2016/17 Winter Operations Plan, including soliciting and taking input from all Partners.

Adaptive Management proposals

Two adaptive management proposals were put forward for consideration, as described below. Briefing papers for each of these proposals can be found on the meeting page of the IBMP website (<http://www.ibmp.info/Library/20160803/20160803.php>).

From the Nez Perce Tribe

The current IBMP AM Plan states:

- Management Action 1.3.d—Consider a voluntary compensation program for livestock owners who agree to release livestock on private land beyond May 15.

Recommended adjustment:

- Management Action 1.3.d—Consider a voluntary compensation program for livestock owners who agree to release livestock on private land beyond May 15. *In addition, encourage the Custer Gallatin National Forest to build flexibility regarding turnout dates into grazing permittees' Annual Operating Instructions.*

ME went through an extensive listing of CGNF allotments on both the west side and the north side of YNP. On the west side, for example, she noted that of 13 allotments, 7 have been closed. Of the 6 remaining active, all have horses not cattle. On the north side, 2 are active with cow/calf pairs and turn on dates of June 16. ME said that based on inactivity of most allotments, and late turn on date of those that do still exist, the Forest Service believes they have eliminated any landscape/bison issues and that there are no conflicts on the north or west side.

ME said that she would provide documentation after the meeting on the current CGNF allotments (as her staff did, see Table 3).

Further, ME stated, USFS permits include language to adaptively address any activity outside of the tolerance boundaries. Thus if there were any bison conflict issues that weren't covered in the permit, those could be addressed in the annual operating instructions.

NT accepted this explanation and did not request a vote on making the change proposed. Thus the adaptive proposal was effectively dropped.

Table 3.—Current CGNF allotment status.

Allotment Name	Location	Status	Class and Number of Livestock
Allotments Within Western Bison Zone 2 – Hebgen RD			
Moose	East of Hebgen Lake	Active	4 horses
Grayling Creek	East of Hebgen Lake	Active	24 horses
Horse Butte	East of Hebgen Lake	Closed (2009)	Previously, cow/calf pairs
Duck Creek	East of Hebgen Lake	Closed (2008)	Previously, cow/calf pairs
Dry Gulch	Northeast of Horse Butte, North of Hwy 287	Closed (2008)	Previously, cow/calf pairs
Allotments Within the Western Bison Yearlong Tolerance Zone – Hebgen RD			
Sage Creek	Taylor Fork Area	Active	129 horses
North Cinnamon	Taylor Fork Area	Active	60 horses
South Cinnamon	Taylor Fork Area	Active	35 horses
Taylor Fork	Taylor Fork Area	Active	90 horses
Wapiti	Taylor Fork Area	Closed (2015)	Previously, 160 cow/calf pairs
Cache-Eldridge	Taylor Fork Area	Closed (2015)	Previously, 154 cow/calf pairs
University	Taylor Fork Area	Closed (2008)	Previously sheep
Red Canyon	North of Horse Butte, North of Hwy 287	Closed (2015)	Previously, cow/calf pairs
Allotments Outside of but Near the Western Bison Management Zones			
Watkins Creek	West of Hebgen Lake	Active	55 cow/calf pairs
South Fork	South of Hebgen Lake	Active	15 cow/calf pairs
Sheep Mile	South of Quake Lake	Vacant (Forage Reserve Allotment)	Previously, 89 yearlings
Basin	South of Hebgen Lake	Closed - West Unit (2015) ^[1]	Previously, 10 cow/calf pairs
Sulphur Springs	South of Hebgen lake and Hwy 20	Closed (2015)	Previously, 10 horses
Lionhead	Hebgen Lake Area	Closed (2008)	Previously sheep
Two Top	Hebgen Lake Area	Closed (2008)	Previously sheep
Allotments within the Northern Bison Management Zone - Gardiner RD			
Slip and Slide	East of Yellowstone River	Active	110 cow/calf pairs
Green Lake	West of Yellowstone River	Active	46 cow/calf pairs
Cottonwood	West of Yellowstone River	Vacant	Previously, cow/calf pairs
Lion Creek	West of Yellowstone River	Vacant	Previously, cow/calf pairs
Mill Creek & Section 22	Upper Cinnabar and Upper Mulherin	Vacant	Previously, 36 cow/calf pairs
Park	West of Yellowstone River	Closed (2007)	Previously, cow/calf pairs
Sentinel Butte	East of Yellowstone River	Closed (2007)	Previously, cow/calf pairs
Allotments Outside of but Near the Northern Bison Management Zone – Gardiner RD			
Tom Miner and Ramshorn	Tom Miner Basin	Active	126 cow/calf pairs; and Private Land 134 cow/calf pairs
Horse Creek / Reeder Creek	Upper Tom Miner	Active	81 cow/calf pairs, 22 year lings, & 15 horse; and Private Land 15 horses
Wigwam	Lower Tom Miner	Active	56 cow/calf pairs; and Private Land 20 cow/calf pairs
Canyon	Tom Miner Basin	Closed (2007)	Previously, cow/calf pairs

From MDOL

Recommended Adjustment.—Adopt the geographic boundaries for bison tolerance based on the Erratum Decision Notice issued by the Governor of Montana on June 14, 2016.

The change requested was simply to go through the adaptive management plan and incorporate, as noted, the geographic boundaries for bison tolerance based on the Erratum Decision Notice issued by the Governor of Montana on June 14, 2016.

Partners agreed by consensus that this was simply an administrative change that did not require debate, NEPA/MEPA analysis, or signature. As such, the Partners assigned the facilitator to work with MDOL to incorporate the ERRATUM information into the IBMP Adaptive Management Plan, then repost it to the website (** action item 3).

Spread of brucellosis in elk and cattle—a multi-project look

Dr. Angela Brennan, a Fulbright Fellow, is doing her post-doc at the University of Wyoming.

Dr. Brennan spoke about elk, cattle, and brucellosis. Early on she stated that she had little expertise on bison, but then quickly demonstrated great depth of research and resulting knowledge regarding brucellosis and the interplay with elk and cattle.



Figure 1.—Dr. Angela Brennan speaks to Partners, staff, and public about elk, cattle, and brucellosis.

Angela spoke about brucellosis of elk both on and off feedgrounds in Wyoming. She noted that feedgrounds are used as a way to reduce elk use of haystacks on private property, reduce elk-livestock comingling, and sustain large numbers of elk.

Angela said that feeding elk can promote dense aggregations on the feed lines, and consequently high rates of disease transmission, as is seen with brucellosis. From 1990 to 2015 brucellosis seroprevalence in fed elk ranged from roughly 10% to 40%, with an average of around 23%. She noted that previous work on the feedgrounds showed that 30-60% of seropositive elk were also culture positive, meaning the bacteria itself was also detected.

An interesting point in Angela's research is the realization that previously brucellosis seroprevalence in unfed elk was low, but it more recently appears to be increasing. Modelling based on 17,000 serological tests reveals consistently higher levels of brucellosis around the feedgrounds over time and increases in brucellosis over time for many unfed areas across the region—including areas in Montana that are pretty far from the feedgrounds.

The big question is why?

Past work showed that even high dispersal rates of feedground elk couldn't explain the levels of brucellosis we're seeing. Nor was changing age structure found to be the cause. So the focus of her research turned to size and frequency of elk aggregation since in general transmission rates increase with density. Angela stated that the relationship between density and transmission is important for a couple reasons: it helps us identify whether there is a threshold density below which the disease is not likely to persist. And it is one of the explanations for the use of control strategies such as culling that aim to reduce the total number of individuals in the population, thereby reducing the potential for transmission. Transmission time is expected to be highest at calving, between February and mid-June.

In looking at winter range density and group size effects, Angela found that brucellosis increases with increasing winter range density, increasing mean group size and increasing typical group size. But these are not strong relationships—none of those measures predict brucellosis increases very well, nor explain everything. That means that likely there isn't just one management strategy that will work across all units to reduce transmission. Maybe in some areas reducing population size is enough, while in others targeted hunts to disperse large groups is necessary.

Angela then turned to connectivity as the next possible key to understanding brucellosis transmission, as shown in Figure 2.

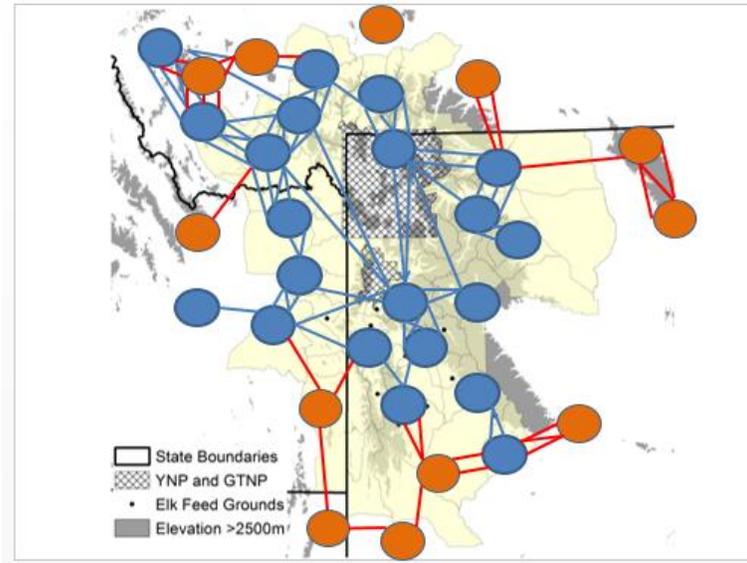


Figure 2.—Exploring connectivity across the greater Yellowstone area. The nodes show areas of wintering elk populations based on ~4 million GPS points from 1100 elk between 2000 and 2015. Blue dots are empirical; red dots are simulated. Understanding connectivity across the region may allow us to predict where brucellosis is likely to go next, if anywhere at all.

Finally, Angela turned to elk, cattle, and brucellosis. While the greater Yellowstone supports some 450,000 cattle (far more than elk), there have been only 21 cases of brucellosis in cattle and domestic bison between 2002 and 2014, and zero cases between 1990 and 2001. So overall, these outbreaks of brucellosis in livestock are rare. Angela was quick to say that she didn't mean to diminish the importance of those outbreaks, because they are important to catch in order to reduce the risk of a larger outbreak across the country, and as a result they cost a lot of money in testing and mitigation.

Additionally, even though they are rare, evidence suggests they are on the rise. And there is mounting genetic evidence linking elk and livestock brucellosis, so there is little doubt that elk are the source of these infections. But we don't know how livestock risk relates to elk brucellosis seroprevalence. This missing knowledge is a topic of Angela's ongoing research.

Some current results may suggest that focusing disease testing and mitigation in areas with high elk seroprevalence could reduce the risk of outbreaks in livestock. However, because outbreaks are already rare, the costs of this focused management may be greater than the cost of infection. So if it's really not likely your livestock will get infected anyway, she suggested, maybe it makes more economic sense to wait and see. This is a hypothesis that came out of an economic analysis in work done by Trenton Roberts and Dannele Peck out of the University of Wyoming. (Facilitator's note: Some in attendance asked for a link to the analysis Angela described; Angela provided it later—"Cattle producers' economic incentives for preventing bovine brucellosis under uncertainty" can be found at <http://www.sciquest.org.nz/node/80552>.)

Continuing discussion of Northern Range habitat assessments

Pete Husby is a retired state biologist with the Natural Resources Conservation Services (NRCS).

Pete Husby came to address the Partners as part of an ongoing Partner discussion on the status of the Northern Range, both inside and outside of YNP. Pete began by describing how wildlife biologist Aldo Leopold came to the realization that a range can be over grazed (in his case by white tail deer in Wisconsin). Pete said he suspected that Leopold would be shocked by what he would see on the Northern Range.

Pete said that the ecological and cultural status of the bison could not be overstated. He also said he had a fundamental belief that the health of the land and habitat and Mother Earth need always be the goal, regardless of the management of bison or grizzlies or whatever.



Figure 3.—Pete Husby, retired NRCS scientist, addresses the Partners, staff, and public regarding his work to assess the habitat status of Yellowstone’s Northern Range.

Pete compared NRCS (in the 1960s called the Soil Conservation Services) range inventories to that of 2015 resurvey and reported the following:

- Native range acres: 137,000
 - Excellent Condition: 6%
 - Good Condition: 49%
 - Fair Condition: 43%
 - Poor Condition: 2%
 - Excellent + Good Condition: 55% in 1963
- Excellent + Good Condition: 0% in 2016

The re-inventory included looks at range status inside and outside exclosures. Pete said that compared to the non-grazed areas, the grazed areas showed decreased biodiversity, decreased cover, decreased habitat potential, increased erosion and topsoil loss, and invasion by noxious weeds.

Pete stated that even in the 1963 report there had been explicit warnings:

- All aspen sites showed destructive use
- Wetlands: no or very suppressed willows
- Sagebrush in some areas: severe utilization
- Conifers severely used; little reproduction
- Ridges with severe utilization of forage
- Noxious weeds increasing

Pete then took the Partners on a “photo tour” of the Northern Range, moving steadily up in elevation from lowlands to headwaters. His photos demonstrated:

- Decline in watershed health and function
 - Loss of ground cover (litter) = EROSION
 - Loss of deep-rooted perennial grasses
 - Continued loss of riparian habitat
 - Loss of stream function
 - Loss of RESISTANCE and RESILIENCE
- Decline in biodiversity & food resources
- Loss of structural habitat diversity

Pete summarized his findings and presentation, with the following observations:

- Continuing, progressive decline in watershed health and productivity
- Continuing decline in biodiversity
- The Northern Range is overstocked w/ bison by at least an order of magnitude
- 2 months of grazing available at current stocking to avoid continuing damage
- YNP is the wrong place for the “American Serengeti”

In closing Pete said he found it amazing how Native Americans in the past were able to take care of Mother Earth. They intervened with fire and the like. Humans have probably been the “Keystone” predators keeping bison on the move and controlling numbers. “Why, then, do we consider it “un-natural” for us to do so today?” Pete asked. “What is ‘natural’?”

Several questions followed Pete’s talk; most questions focused on two areas: (1) where is the data for his presentation (Pete offered to share it with Partners and staff and phone numbers were exchanged); (2) the presentation seemed to focus on standing crop which is not the full story—production is also critical in determining the health of the range.

Partner briefings/updates—status of ongoing activities related to Yellowstone bison & brucellosis

Status of bison being named national mammal—Matt Skoglund

On May 9, 2016 President Obama signed a law that made the bison the country’s first national mammal. It thus joined the bald eagle as one of two national animals. Matt said that the law was pushed forward especially by four groups: ITBC, Wildlife Conservation Society, the National Bison Association, and Vote Bison.

JS described the law as the culmination of a 5-year effort. ITBC originally wanted to have a buffalo day leading into the Thanksgiving holiday. That day was to be, among other things, a time for people to come together and share stories about the buffalo, to share ideas about how to restore buffalo to Native American Society. Keith Aune of WCS suggested they think bigger, and the idea of the national mammal was born.

Status of new Bison Management Plan/EIS—Jennifer Carpenter

- NPS-State of Montana (MDOL and MFWO) are co-leads on plan with five cooperating agencies: CSKT, CTUIR, ITBC, NPT, USFS).
- NOI was released in March 2015.
- A 90-day review period was provided for 6 or 7 concepts for the EIS that were presented. ~8800 comments were received and have now been reviewed.
- The Institute on Environmental Conflict Resolution has completed their interviews with cooperating partners. Jennifer thanked all those who participated.
- A workshop is planned with co-lead MDOL and MFWO for Sep 2016. It is not for the public. The goal is to develop the range of alternatives for the EIS.

- A second workshop will then be held (possibly in Oct 2016 but date not yet set) with the cooperating agencies. Again this is not expected to be a public meeting.
- Web information on the EIS can be found at www.parkplanning.NPS.gov/yellbisonplan.

Status of lawsuit regarding access to Stephens Creek facility—Jennifer Carpenter

The lawsuit includes two plaintiffs. The lawsuit premise is that the plaintiffs have a first amendment right to access the Stephens Creek facility at all times. The lawsuit has been denied twice with a finding that the two did not have standing. A third appeal is underway.

Status of FWS petition to list bison under ESA—PJ White

In 2015, the U.S. Fish and Wildlife Service issued a negative 90-day determination on two citizen's petitions to list a distinct population segment of Yellowstone-area bison as threatened or endangered. Three groups recently filed a Notice of Intent to sue over the agencies decision. The issues include lack of historical habitat, concerns about genetic diversity, and contentions regarding the numbers of animals that should exist in the Northern and Central herds.

Development of an educational handout: Landowners: Living with Bison—Andrea Jones

This work complements three other bison educational handouts already available (see <http://www.ibmp.info/bisoneducation.php>). The intent is to couple this handout with bison co-existence fencing program to help private property owners better co-exist with wild bison. MFWP is in the early stages of developing the brochure. They have no funds so expect the product to eventually be posted to the website, where NGOs and others could download it and either print out or send to a printer if they wanted fancier brochures made. Andrea is open to having others help with the work and mentioned that at one time an NPT intern had contacted her.

Update on NAS review of brucellosis in wildlife in the GYA—Don Herriott

The National Academy of Sciences panel has now held four public meetings, as planned, then added a fifth meeting based on the sheer volume of information they are working through. The panel has now completed a final draft of their findings which next will go to external reviewers. After those reviews are complete and any modification made, the final report will be released. The expected release date for the final report is in the fall of 2016. (Meeting notes and project announcements are available on the NAS website at <http://dels.nas.edu/Study-In-Progress/Revisiting-Brucellosis-Greater-Yellowstone/DELS-BANR-14-03?bname=banr>).

Status of bison-coexistence/fencing project—Shana Dunkley

Shana Dunkley of GYC, now the project lead organization, reported that the project was started in 2011 by MFWP, Defenders of Wildlife, NRDC, Sierra Club, and the Greater Yellowstone Coalition. The project goal is to increase or maintain public tolerance to bison outside YNP through the funding (cost share up to \$1000) and technical assistance to build bison exclusion fencing. Thirty-five projects have been completed, including 9 in 2015, and 4 so far in 2016 with more planned. Participants report being very happy with the outcomes of the projects.

Status of North-side habitat study—Jodie Canfield

Jodie described that Dr. Marlow's team had completed their field work on the North side of YNP and next would be undertaking data analysis. She expects that a final report on the work will be available in the spring or summer of 2017. Jodie also noted that CGNF has requested that Dr. Marlow provide a proposal for doing similar work in the Hebgen Basin.

Proposed removal of *Brucella abortus* from the CDC select agents list

A federal panel of experts responding to a presidential directive is relooking at removing *Brucella abortus* from select agents list. It is expected that removal from the list would open the door to research into development of a *B. abortus* vaccine. *B. abortus* has not been removed from the list yet, and would require a

rule change. MZ stated that still this is a significant development and that USDA-APHIS, MDOL, and the IBMP had all worked hard to help the process move ahead this far.

MZ said that if *B. abortus* is declared ready to be removed from the select agent list, he would guess 12-18 months would pass before the federal rulemaking to actually remove *B. abortus* from that list. MZ stressed this was simply a guess based on experience, not based on some inside information he had.

NPS Quarantine Environmental Assessment

JC said that the EA had three alternatives: (1) the no action alternative, (2) a quarantine facility within the DSA, and (3) quarantine outside the DSA at an approved facility (currently only Fort Peck meets this criteria). Roughly 17,000 comments were received on the EA. A petition in favor of operational quarantine having ~400,000 signatures was also received. NPS is currently evaluating the public comments and then will begin to develop a decision notice. They would like to have the decision out soon, though it will require legal review. JC said the likely decision release date will be later in the fall of 2016.

On a related topic, MZ reported that he and MH visited and inspected the Fort Peck quarantine facility. He said they had a lively discussion with the folks at the Fort Peck Reservation and that he really now better appreciated how far a drive they had to come to Bozeman for IBMP meetings. EC commended MZ and MH for traveling to the Fort Peck Reservation and inspecting the quarantine facilities there.

Robbie Magnan of the Fort Peck Tribe then came forward and addressed the Partners. He said that the Tribe really wants the YELL bison to be allowed to come through the operational quarantine facility the tribe has developed. The tribe proposes to keep 30% of the bison they handle, and release the other 70% to other public or tribal parties. It is a win-win situation, Robbie said, for people and bison.

Along with holding bison for later release, the Tribe wants to do research at their facility. Robbie said through their first experience with quarantine bison the Tribe learned that animals coming out of quarantine can lose their family structure. The Tribe would like to learn how to either reinitiate them back into that family structure, or how to maintain that family structure through the quarantine process.

Robbie said that the Fort Peck Tribe is open to anyone who wants to come and visit the facility.

In response to a question, DW said that in principal the EA decision could go into effect immediately after publication of the decision.

Montana State-wide Bison Management Plan

SS stated that this topic should have more correctly been listed under the updates section of the agenda. The work on the state-wide bison management plan is still in progress, and not at the “final decision” stage, as noted in the meeting agenda.

Preparation of Annual Report

- Lead Partner MDOL responsible, with Dr. Emily Kaleczyc acting as project lead
 - 1st draft expected to be delivered to Partners on ~Aug 10
 - Partner edits back by Sep 10
- MDOL will report back on progress and any remaining items at the Dec 1 IBMP meeting
- Recall the report will be written under the new report format, per the Partner-agreed upon 2015 adaptive change
- Completion deadline for the Annual Report is Dec 31, 2016
- The Annual Report does not have to be signed by the Partners

****Action item 4**** : MDOL to write and drive completion of 2016 Annual Report, including soliciting and taking input from all Partners.

Wishing Rob Tierney well

Somewhat to the chagrin of long-time MDOL agent Rob Tierney, during the course of the meeting it became known that he will be retiring soon. Thus, that this would be his last involvement at an IBMP meeting, where he has been a stalwart for years.

Rob's retirement was stated publically by Mike Meese of Buffalo Field Campaign. Upon the news, the assembled group gave Rob a warm round of applause. Mike said that though he and Rob had had a few clashes over the years, he respected him and appreciated that Rob had always treated his own group with respect. He wished Rob the best with whatever awaited him ahead.

TM also rose to thank Rob publically for his service to the state, and to the IBMP world. TM said that Rob has always been very good to the CSKT. That he was a true Montanan. And that Rob was always a true gentleman, always polite, and always treated people well and with respect.

As TM closed his statement, those assembled provided Rob a second warm round of applause.

Public comment

The following notes on public comment to the IBMP Partners are not intended to be complete, but rather reflect the facilitator's best effort to capture key statements. The facilitator has especially attempted to capture those comments from the public that appeared to be solution-oriented and/or have the potential for inclusion in adaptive management planning and/or process improvement and/or use as agenda items for future meetings. These items, as well as other potentially actionable public input, are called out with a "***" in the listings that follow.

Names associated with comments are available from the facilitator. They are not included here, however, in an effort to focus on the comment rather than the speaker. Line breaks in the bullets indicate a new speaker. Public comment was taken just after lunch in reaction to numerous past public comments about public input being of less value at the very end of the day. In addition, some comments were taken at day's end given that the meeting closed ~1 hour early, and that Lead Partner Dr. Zaluski stated that the Partners should use the time to give the public another opportunity for input.

- ** I urge you to hold a meeting in the Gardiner Basin before making any final future decisions about winter operations.
- Please make time to talk and listen to the neighbors and business owners that are ducking bullets and losing business because of the bison hunt.
- ** I urge the Partners to recognize the importance of research to drive conservation. A good example is the quarantine feasibility study—the work of that project allowed us to move some YNP bison to conservation herds or to tribes.
- Also, we do need operational quarantine. Quarantine can help us not need to lethally remove bison.
- I am encouraged by both the discussion this morning and the focus on conservation and habitat. The Partners are to be complimented.
- I want to assure the Park that they are not the only ones worried about overgrazing and habitat — ranchers likewise worry about this all the time.
- I urge everyone in the room to think about the fact that all of the discussions held by this group are driven by brucellosis. That is why the discussion on research is so important. If there were no brucellosis, there wouldn't be a need for this group. Lots of these problems would then just go away.
- We formed our group back in 1989 in reaction to the slaughter of bison along the burrow pits. These weren't hunters but licensed killers. By the time it was done, 589 bison were dead.
- One excuse for killing bison was that they were going into the Cinnabar Basin. We say, LET THEM GO!
- But these bison suffered under MDOL. But they are not even a real department.

- The NY Times and others were here. It was terrible. A year later Montana lost 50% of its tourist trade. This is very serious business. The Nation cares!
- America loves bison. Witness bison being named the national mammal. But lots of you don't know is that same bill contained a rider that allows the IBMP to go on.
- I want to honor the Governor for opening some additional habitat to bison. Habitat is the solution to the problem! We also appreciate that he stopped agents for going onto private land for hazing, unless invited.
- The big missing is this — why don't we address elk? Why is there such a prejudice against bison?
- ** We need to look to our Native America friends for how to treat buffalo. Think for example of controlled burns for habitat restoration, as you are discussing.
- 20 years ago I co-founded BFC with Rosalie Little Thunder.
- I have accumulated a lot of wisdom and I would be happy to share it with any group here. Some have mentioned people pushing bison back into the park in the dark. That is not our group and if you ever find someone associated with us doing that, I will tell them to leave.
- Yes, there are some good things going on. Thanks for the tribal connection that brings this group a spiritual connection to the buffalo. We too often live only in numbers—how many, when, etc.
- We should recognize that Yellowstone is not ideal habitat. The bison escaped to Yellowstone; ideally the bison should be returned to the plains. Perhaps that can happen if *Brucella abortus* is removed from the select agents' list.
- The CDC is considering removing *Brucella abortus* from the select agents' list.
- Such a change would open up the opportunity for vaccine research.
- ** I ask the Partners to endorse this removal of *B. abortus* from the select agent list.
- I appreciate the generally respectful tone at these meeting. That said, I want to make a comment that all of the Partners are not respectful to the general public during public testimony. There are only a few small windows when the public gets to provide input at this meeting. So when people have their 3 min to provide you their thoughts, the least you could do is give them your attention.
- I want to call attention to the Governor's EA decision. We should acknowledge this as an incredible success, witness the quiet year for management actions on the West Side. Recall that 6 or 7 years ago, it was said that the sky would fall if bison were allowed out the West Side. Again, I want to commend all for a successful spring.
- ** Finally, I want to urge you to consider that increased tolerance and habitat are the best ways to alleviate our problems.
- I agree that bison should be managed as wildlife, just like elk. Bison need access to lands outside of the park. We need to put more attention toward helping bison spread out into the landscape. Otherwise, we will have bison slaughtered.
- In addition, greater distribution of bison across the landscape will lead to greater hunting opportunities in a more fair chase manner.
- ** We need to get away from the political route of decision making and instead more fully work adaptively, in real time, not just year-to-year.
- I have been working with a family on the N Cheyenne Reservation. They believe that bison can bring the tribes back together. They believe the tribes can help bring the bison back all over the landscape. If anyone needs us, our law group can help.
- I have followed the bison situation for years. I have been very critical. I can see that there has been change. But they still need more room to roam.

** FINAL **

- I want to express thanks to Dr. Zaluski and Mike Honeycutt for coming up to the Ft Peck Reservation to review the quarantine facilities there.
- The Fort Peck Tribe has distinguished itself as leaders. They have invested significant dollars and effort to create their quarantine facility. They have created a route out for Yellowstone bison.
- We are still at an impasse. There are concerns about how other state veterinarians will view these animals.
- But there are now next steps identified, including meeting during the next legislative session. We need to keep this conversation going.

*** Meeting adjourned ***

Abbreviations

- AJ—Andrea Jones
- AM—Adaptive management
- APHIS—Animal and Plant Health Inspection Service
- BB—Brooklyn Baptiste
- BFC—Buffalo Field Campaign
- CGNF—Custer Gallatin National Forest
- CS—Carl Scheeler
- CSKT—Confederated Salish Kootenai Tribes
- CTUIR—Confederated Tribes of the Umatilla Indian Reservation
- CWG—Citizens’ Working Group
- DH—Don Herriot
- DSA—Designated Surveillance Zone
- DW—Dan Wenk
- EA—Environmental Assessment
- EC—Ervin Carlson
- GAO—Government Accountability Office
- GNF—Gallatin National Forest
- GW—Germaine White
- GWA—Gallatin Wildlife Association
- GYA—Greater Yellowstone Area
- ITBC—Inter Tribal Buffalo Council
- JC—Jennifer Carpenter
- JH—John Harrison
- JS—Jim Stone
- LG—Leonard Gray
- MBOL—Montana Board of Livestock
- MD—Marna Daley
- MDOL—Montana Department of Livestock
- MDOT—Montana Department of Transportation
- ME—Mary Erickson
- MEPA—Montana Environmental Policy Act
- MFWP—Montana Fish Wildlife and Parks
- MH—Mike Honeycutt
- MO—McCoy Oatman
- MOU—Memorandum of Understanding
- MR—Majel Russell
- MSGA—Montana Stockgrowers’ Association
- MSU—Montana State University
- MZ—Marty Zaluski
- NAS—National Academy of Sciences
- NEPA—National Environmental Policy Act
- NGO—Non-governmental organizations
- NP—Nez Perce
- NPS—National Park Service
- NPT—Nez Perce Tribe
- NPTEC—Nez Perce Tribal Executive Committee
- NRC—National Research Council
- NRDC—Natural Resources Defense Council
- NT—Neil Thagard
- Park—Yellowstone National Park
- PIOs—Public Information Officers
- PJ—PJ White
- QE—Quincy Ellenwood
- RC—Ryan Clarke
- ROD—Record of Decision
- RF—Rebecca Frye
- RFP—Request for proposals
- RT—Rob Tierney
- RTR—Royal Teton Ranch
- RW—Rick Wallen
- SB—Scott Bischke
- SEIS—Supplemental EIS
- SG—Stephanie Gillin
- SK—Salish Kootenai
- SS—Sam Sheppard
- TM—Tom McDonald
- USFWS—US Fish and Wildlife Service
- USGS—US Geological Survey
- WMA—state of MT wildlife management areas
- YELL—Yellowstone National Park
- YNP—Yellowstone National Park