

Summary Report from the Interagency Bison Management Plan Meeting November 21, 2013



First draft presented 11 December 2013 by meeting facilitator Scott Bischke

The following summary report reflects activities at the November 21, 2013 meeting of the Interagency Bison Management Plan (IBMP) Partners, held at Chico Hot Springs in Pray MT. This report comes from the notes and flip chart records of facilitator Scott Bischke¹. The report will be marked “Draft” until formal Partner agreement at the start of their next meeting. The nine Partner attendees were Don Herriott (APHIS), Tom McDonald (CSKT), Ervin Carlson (ITBC), Christian Mackay (MBOL), Marty Zaluski (MDOL), Pat Flowers (MFWP), McCoy Oatman (NPT), Daniel Wenk (NPS-YNP), and Scott Barndt (USFS-GNF). In addition to those at the deliberative table, ~20 staff members from across IBMP organizations and ~30 members of the public were present (attendance sheets are available from the facilitator).

Action items identified	2
Agreeing to previous meeting minutes	2
Debrief from November 20th field trip	2
Status of State MEPA process for addition of new west side lands open to bison	5
Discussion of Winter 2013/014 Operations Plan	5
Seroprevalence	5
Update on State of Montana Bison Management Plan	7
Working Dogs for Conservation presentation	7
Discussion of potential adaptive management changes.....	9
Habitat Improvement Subcommittee	10
Update on North Hebgen habitat restoration project	12
Partner briefings and updates.....	14
Thanks to 2013 Lead Partner.....	15
Future activity planning	15
Public comment.....	16
Abbreviations	18

¹ MountainWorks Inc.; scott@eMountainWorks.com

Action items identified

Table 1.—Action items identified during this meeting

#	Who	What	By when
1	SB	Post July meeting notes to IBMP.info as final	ASAP
2	PF	Lead discussion on bison population of 3000 bison in YNP—was this an IBMP adaptive management change made in 2006, or just for one year?	At next IBMP meeting
3	RC, SB	Complete final edits, as derived at this meeting, on the 2014 Winter Ops Plan, then send to Partners for electronic signature.	Signature loop to be complete by December 31 st
4	MZ	Q: Has this been modeled over time? Have we considered ramifications to hunting? This group would be helped by that information. R: No, we do not have enough animals vaccinated in total over the years to really understand the expected outcome. This work will be a step toward achieving that better understanding. (** Action item 4: MZ to develop response to questions noted here for presentation at the next IBMP meeting)	At next IBMP meeting
5	DaveH	Tom Hobbs revised report on his predictive seroprevalence model publication and availability will be available soon. NPS to provide to Partners when it is available.	When available
6	DH, DaveH, SB	The letter regarding an IBMP recommendation to decrease the speed limit in Gardner Basin has been prepared...Don, as Lead Partner, will send the letter to the Deputy Director on behalf of the Partners. DaveH noted that the NPCA has a fact sheet on bison safety on roads and he committed to send that document out as a .pdf file to the Partners via the facilitator.	ASAP
7	AJ	Andrea to meet with Germaine White of the CSKT to create a bison education brochure centered on Tribal issues and cultural traditions.	Before next IBMP meeting

Agreeing to previous meeting minutes

The facilitator asked if there were any objections or changes to the draft meeting report from the July 2013 IBMP meeting. No objections were brought forth; thus the facilitator, per Partner Protocols, is to post the July 2013 meeting notes to IBMP.info as “final” (** Action item 1).

Debrief from November 20th field trip

The Partners planned a half-day field trip on November 20th, the day before their regularly scheduled meeting. The purpose of the field trip was to view and discuss various habitat restoration projects in the Gardiner Basin, as well as to discuss public safety issues on the north Side of YELL. Due to inclement weather—snow, strong winds, icy roads—the outside portion of the tour was cancelled and instead the “field trip” was held inside at NPS Heritage and Research Center in Gardiner.

Discussions focused on issues as defined in the original field trip schedule: (1) YNP personnel hosted a discussion on their two pilot projects located in the Stephen's Creek vicinity; (2) USDA-Forest Service description of their restoration projects at Beattie Gulch and Cutler Meadows; and (3) an additional discussion among the agencies and public focused on hunting and public safety issues.

Roughly 40 people attended the meeting (a scanned attendance file is available from the facilitator). Partners initiated each of the three areas of discussion noted above with short presentations, then the floor was open to all for discussion. Partner discussion leaders were Roy Renkin for the NPS, Ron Hecker for the USFS, and Ryan Clarke for APHIS as the meeting initiator and closer.



Figure 1.—Partners listening to citizen input during planned field trip that, due to inclement weather, was held instead at the NPS Heritage and Research Center in Gardiner.

Many lines of thought were covered during the roughly four hour meeting. A brief summary of discussion surrounding restoration projects follows, focusing on citizen input to the Partners:

- NPS-YNP noted that it did not have a lot of knowledge about restoration, but is working hard to gain that knowledge on the ground, as well as through such venues as their 2002 Pronghorn Workshop and 2005 Interagency Gardiner Basin Vegetation Restoration Workshop, both with invited experts. NPS has reports available from multiple studies and workshops on vegetation within the Gardner Basin. Those reports include expert panel recommendations for restoration pilot projects.
- USFS-GNF noted that the main goals of their restoration projects is to control noxious weeds and restore native grasses. They noted that they had found greater success in their project at Cutler Meadows than the one at Beattie Gulch, with the differing soil types and level and timing of precipitation sited as likely reasons for the differences. Barley as a cover crop was extremely effective in excluding primary weed species, such as cheatgrass and alyssum. They noted that fence enclosures were problematic and would not be recommended in future restoration projects.
- Public feedback included:
 - Different grasses and forbs—whether native, purposely introduced, or invasive—have greatly varying forage quality with respect to production, seasonality, water needs (amount and timing), time to establishment, resistance to invasion, appeal to grazers (both those managers might be hoping to attract and those they are not), and many other factors. It is critical to understand these differences in making decisions on what to plant as part of a habitat restoration project. Then it is critical in any restoration effort to decide what vegetation community you are seeking to (re)establish.

- Members of the public multiple times spoke to the critical importance of maintaining healthy soils, stating that nothing else matters if soil health is compromised. They also gave advice on likelihood of success for different methods of planting (e.g., broadcast vs light harrowing vs drill seeding), pulling from experience they had in the Gardiner Basin and Paradise Valley.
- Restoration is a long term project. Don't expect everything to be back the way you want it in one year.
- A member of the public stated, effectively, "One thing I have not heard is anyone state explicitly is what the goals of the restoration projects are. I have heard three things bantered about multiple times: improved soil health, restoration of native grasses, a viable winter range for bison. If that's correct, we should recognize that these three goals might require vastly different strategies. For example, if winter range is the goal you likely will want to plant something robust and probably not native. If restoration of native grasses is the goal, you are not likely to have viable winter range."
 - In response, NPS stated that their goals were to restore the soil and to restore grazing habitat; USFS said their goals were to control weeds infestations and restore a diverse, sustainable native species-based grasslands.
- You will not be able to service bison in the winter on grasses that elk will eat through the rest of the year. This is not 12-month habitat. You need to change your goal to managing for winter grazing as the goal, then make decisions on soil treatment, what to plant, and so on from there.
- Another member of the public urged a more holistic approach. Paraphrasing: "We need to integrate the restoration work with wildlife management goals. The two go hand-in-hand yet seems like we are only talking about the restoration side of the equation. I think that we are talking about creating winter habitat for wildlife, bison specifically, and that goal needs to be factored into setting the goals for the restoration work."
- Multiple members of the public suggested and seconded the idea of doing a full day field trip focused on soil and vegetation health starting somewhere in the highlands of YNP and ending somewhere in the grazing lands of Paradise Valley.

The discussion then turned to safety issues in the Gardner Basin, focused almost entirely on safety issues surrounding the bison hunt. A major concern was the number and volume of bison gut piles left behind following last year's hunt. Roughly 8,000 pounds were hauled away last hunting season. Two major safety concerns were identified: (1) the potential of human/grizzly bear (drawn to the large protein source) encounters—noted as a distinct danger to the health and safety of both humans and bears; and (2) the danger of shooting in the vicinity of homes, facilities, and roadways located in and around the Beattie Gulch area. The USFS described an existing Code of Federal Regulations (36 CFR 261, Subpart A – General Prohibitions) that states discharging a firearm or any other implement capable of taking human life, causing injury, or damaging property in or within 150 yards of a residence, building, campsite, developed recreation site or occupied area is prohibited.

A homeowner who lives just outside the Park boundary near Beattie Gulch spoke about the "slaughter" being so disturbing, how bison had never damaged her lands, how one tribe allowed "unsafe and unethical" shooting at night, and how tourism was Montana's largest revenue producing industry. She noted that if the slaughter happens again this year it will be filmed. A Partner stated that each Tribe has unique hunting treaties, seasons, and regulations.

At meeting conclusion, multiple members of the public thanked the Partners for having an open, interactive forum in which to discuss their concerns and ideas. Public sentiment, at least as expressed to the facilitator, was that this was one of the most valuable Public/Partner interactions anyone could remember.

Status of State MEPA process for addition of new west side lands open to bison

PF stated that roughly 115,000 comments were received on the West Side Environmental Analysis. Of those, ~3,600 were unique comments, while the rest were presented petition style. The State of Montana is developing responses to the comments now, and a final decision is likely in January 2014.

Discussion of Winter 2013/014 Operations Plan

Since the July 2013 IBMP meeting, RC has led an effort to edit and incorporate Partner thoughts and goals into the new 2014 Winter Operations Plan. He came to this meeting with the latest version of the Winter Ops Plan that now included roughly 30 revisions in need of Partner discussion before the Winter Ops Plan could be completed. Some of these revisions were largely inconsequential (e.g., spelling error), some required Partner discussion for clarification, still others required lengthy Partner discussion and debate.

One item discussed at length concerned whether an adaptive management change (labeled “Bison Population Guideline”) made in November 2006 was meant to apply to 2006/2007 Winter Operations only, or to that year and beyond (the AM change can be found listed in the 2006 bullet at <http://ibmp.info/adaptivemgmt.php>). The Partners agreed in the end to (a) add a footnote in the Winter Ops Plan noting their disagreement, and (b) add a session to their next meeting, which PF agreed to lead, regarding whether the 2006 bison population limits/guidelines was intended to be a permanent AM change or just for one season (** Action item 2).

The Partners found common ground, or a path forward in other cases as just described, on all issues. Hence, the result of this discussion was a completed, agreed upon, IBMP 2014 Winter Operations Plan. Partners instructed RC to work with the facilitator to complete the editing process as the Partners had agreed to, then use the electronic signing procedure defined in the Partner Protocols to complete Partner signing of the Plan (** Action item 3). The goal for completing this signing is December 31, 2013, again as defined in the Partner Protocols.



Figure 2.—Ryan Clark describes progress made and edits remaining in the 2014 IBMP Winter Operations Plan.

Seroprevalence

Partners planned a continuing discussion on seroprevalence, postponed from their July 2013 meeting. The Lead Partner suggested that the session include a number of items, with a goal of trying to at least set a timeline for when these items might be started or completed, as appropriate, to better clarify

future IBMP directions with respect to seroprevalence. The report on the discussion is separated into the seven topics, as follows.

POTENTIAL NEW MANDATE FOR BRUCELLOSIS CONTROL IN WILDLIFE (APHIS)

A new program is under consideration to look at brucellosis more holistically, including both elk and bison.

POTENTIAL MDOL RAMP UP ON BISON VACCINATION (MDOL)

MZ noted that MDOL did not complete vaccinations on the West Side as expected last winter, but does plan to do so this winter, using a mobile trap in the Horse Butte area. He noted that Steve Olsen's work (of APHIS) shows there is a positive response in bison to the vaccination, and in fact that that response is better than in vaccinating cattle. He noted that a challenge exists in deciding what to do with those animals that are vaccinated—there is a concern about shipping seropositive animals to slaughter. He said that MDOL did not expect to hold animals 21 days, but instead would mark them in some way.

MZ noted that there would not be a goal for the number of bison vaccinated, but that instead it would be done opportunistically. One goal for the effort would be to have as big an impact (i.e., reduction) as possible on bison seroprevalence.

Partners asked numerous questions of MDOL, with paraphrased questions and responses shown below:

- Question: When did the last trap and vaccinate program had occurred. Response: 2005.
- Q: What has changed since then? R: Implementation of the hunt, making timing of vaccination important, and increased tolerance on Horse Butte, making potential contact with cattle more likely. The latter, in particular, increases the importance of decreasing seroprevalence in bison.
- Q: What is the end game of this vaccination work? R: To improve herd immunity. We are looking at decreasing transmission within the herd with a long term goal of decreasing, then, seroprevalence within the herd.
- Q: Has this been modeled over time? Have we considered ramifications to hunting? This group would be helped by that information. R: No, we do not have enough animals vaccinated in total over the years to really understand the expected outcome. This work will be a step toward achieving that better understanding. (** Action item 4: MZ to develop response to questions noted here for presentation at the next IBMP meeting.)
- Q: Then what number of animals vaccinated would be significant? At what cost? Do we know how many animals over what time period need to be vaccinated, and if so, to achieve what goal? Are we throwing darts at a dartboard? It would be helpful to know a target goal over time for seroprevalence and how many animals it would take to vaccinate to achieve that goal. I think we are looking for the logic that drives the vaccination program, of which the Steve Olsen data provides one part. R: As noted in the past, reducing seroprevalence to the level of elk in the ecosystem would be a good goal.
- Q: When would the vaccination program occur? R: Likely in late February and early March on the West Side. (Responses to response—NPS: Work by John Treanor shows that February/March is the worst time to vaccinate bison. NPT—three or four weeks later would help our hunters.)
- Q: What diagnostics and monitoring will be done? R: Monitoring upon recapture; looking at pregnancies carried to term or not. We are open to suggestions and invite NPS to help with the evaluations. (Responses to response—NPS: we would need to do full project review to decide if we would want to be on board. ITBC—we likewise would like to see a project proposal).

Partners recognized the MDOL is within its individual authority to proceed with the vaccination effort, but the Partners did ask MDOL to consider that having this be a shared IBMP decision would be in keeping with their collaborative relationship. Multiple Partners stated to MDOL that without knowing the answer to the questions posed, they will have difficulty supporting this program. MDOL noted that decreasing seroprevalence is core to the IBMP, the program will be consistent with the Tribal hunt, that NPS

requested such work not long ago, that seroprevalence reduction is one of the few tools—as yet largely untried—they have to achieve IBMP goals, and that while bison vaccination at capture facilities may not be the full solution, it is part of the solution.

PF noted that Partners should recognize that the proposed work is part of the IBMP Adaptive Management Plan. He stated that the clearer the Partners—or MDOL—can be about the benefit of the management action, the better. RC stated that vaccination is also included in the Winter Ops Plan for Stephens Creek (North Side), though PF noted that it is not described for the West Side.

ITBC and NPT explicitly stated that they do not support the planned vaccinations, stating that (1) the action impacts treaty rights, (2) there is no certainty there will be a measureable outcome, and (3) this is not a collaborative decision.

STATUS OF BISON REMOTE VACCINATION EIS (NPS)

The final EIS is in internal NPS review. It will be sent out for 30-day review within the next 3-4 weeks.

STATUS OF TOM HOBBS PREDICTIVE SEROPREVALENCE MODEL PUBLICATION AND AVAILABILITY (NPS)

This paper was published in the journal *Vaccine* in 2010. The results from the paper were used both in the Remote Vaccination EIS, and in the Feb 2013 Brucellosis Science Workshop. Dr. Hobbs used John Treanor's work and modeled uncertainty. He will submit a revised report on the work to NPS by the end of the month and they can provide that to the IBMP Partners (** Action item 5).

POTENTIAL FOR SETTING OBJECTIVES FOR A BOUNDARY VACCINATION PROGRAM AND DETERMINING FEASIBILITY OF ACHIEVING THOSE OBJECTIVES

This topic was not explicitly addressed at this meeting.

BRUCELLOSIS SUPPRESSION AS AN IBMP GOAL AND OVERALL VALUE OF SEROPREVALENCE AS A TOOL FOR ACHIEVING TWIN IBMP GOALS

This topic was not explicitly addressed at this meeting.

Update on State of Montana Bison Management Plan

Arnie Dood provided an update on the status of the State of Montana Bison Management. Arnie noted that they had received over 20,000 comments during meetings held around the state about a year ago. Those meetings were part of information gathering in preparation for the writing of an EIS regarding the State Plan. The EIS was not written, as Arnie noted, for multiple reasons including a lawsuit over the transfer of bison to two reservations; the election of a new governor and with that the seating of a new director of MFWP; and the contentious, generally bison unfriendly, 2013 Legislative session.

Arnie described two different meetings held in September: (1) a meeting of the American Bison Society; and (2) a meeting to get the process restarted, including public and private entities, advocates and opponents of bringing wild bison into the state at locations other than in and around YELL. In the latter meeting a set of principle was agreed to as the basis for future open public meetings of a similar kind.

Original plans were to have the EIS completed by the winter of 2015. Arnie indicated that the deadline is no longer as certain. One thing Arnie said that he was certain about: interest in this issue would not be going away any time soon. As evidence he cited the NPS call to action for restoring bison to three new locations outside the NPS system; tribal interest in obtaining bison; the move of bison to the Fort Peck and Fort Belknap Reservations; American Prairie Foundation progress to restoring bison on its private lands; and some of the quarantined bison currently with Turner Enterprises slated to soon be returned to the State.

Working Dogs for Conservation presentation

The Partners invited Dr. Pete Coppolillo, Executive Director for Working Dogs for Conservation (WD4C), to give a presentation at their November 21 meeting. Dr. Coppolillo gave an overview of

conservation detection dogs and their possible application to disease management. He described how dogs' powerful sense of smell can be applied to conservation issues ranging from invasive weed discovery to finding endangered species to detecting disease. He noted that dog's accuracy can be incredible: in one test dogs were 100% accurate in correctly identifying 1,298 kit fox scats.

WD4C dogs have been employed worldwide for species ranging from black footed ferrets to snow leopards, snails to great apes, turtles to elephants. For animal species, the dogs most often find scat that both shows presence of the target species, plus allows for scat collection and analysis. New work is underway to determine whether dogs are capable of detecting trout to species level.



Figure 3.—Pete Coppelillo, Executive Director of Working Dogs for Conservation, speaks to the Partners, staff, and public about the possibility of using dogs as tools in meeting the twin goals of the IBMP.

Pete put forth potential opportunities—and possible challenges—for using conservation dogs to meet the twin goals of the IBMP. He laid out four key feasibility questions, and a number of utility questions:

- *Feasibility*
 - Can dogs detect aborted fetuses?
 - Can dogs detect scat from infectious individuals?
 - Can dogs detect scat from exposed individuals (seropositive? currently/previously infected)?
 - Can dogs detect *only* infectious (as opposed to exposed) individuals?
- *Utility*
 - What sort of sampling strategy would be most useful for management (minimizing transmission to livestock and promoting tolerance)?
 - Is monitoring elk a priority?
 - Is it cost effective?
 - Decision support vs. quantitative monitoring?
 - How to maximize legal and scientific credibility?
 - Field vs. Lab sampling strategies?
 - Who is interested?

WD4C is interested in beginning work on brucellosis and currently scoping grant and partnership opportunities. Pete set out a series of possible next steps, focused on helping the Partners achieve the twin goals of the IBMP:

- Evaluate discrimination of scats from experimentally-infected animals
- Evaluate discrimination of exposed (presumably non-infectious animals)
- Field trial detection
- ID useful questions (infectious vs. exposed, etc.)
- Field vs. Lab sampling strategies?
- Finding aborted fetuses in the landscape
- Comparison of fetus densities in different treatment areas
- Comparisons of % of seropositive(?) / infectious(?) scats through time and space
- Sampling of pastures before livestock enter

Pete also emphasized that while conservation dogs could provide the Partners a valuable new tool, they should be thought of as a complement to existing (and upcoming) processes and technologies. Dogs he said, are best used and provide the highest efficiency in programs where targets are of low density and cryptic (e.g., nocturnal, camouflaged, tiny), habitat is structurally complex, and discrimination is difficult (e.g., species, sex, reproductive status).

Dr. Coppolillo’s presentation can be found at <http://ibmp.info/Library/20131121/20131121.php>.

Discussion of potential adaptive management changes

At their July meeting, the Partners accepted two adaptive changes to the IBMP Adaptive Management Plan: (1) an adjustment to the North Side reading, *Reduce the opportunity for bison to breach the tolerance zone boundaries by employing management actions at the most efficient trigger points in consideration of overall conditions and risks*; and (2) a redrawing of the IBMP zone boundaries to update maps to reflect the zone concepts with new realities after recent North Side adaptive changes (Figure 4).

In the interim months since the last meeting both adaptive changes were electronically signed by the Partners, as per their Partner Protocols, and are now posted on the Adaptive Management page on the IBMP website (<http://ibmp.info/adaptivemgmt.php>).

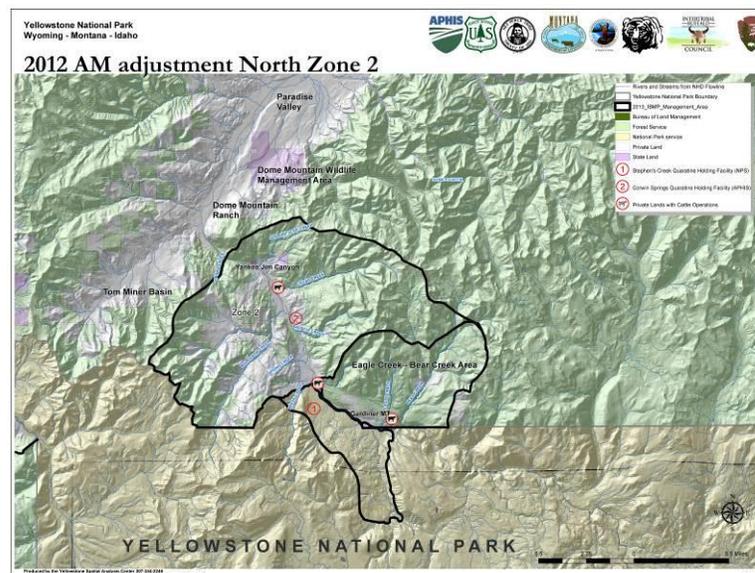


Figure 4.—New Zone boundary map reflecting recent adaptive changes and accepted by the Partners for incorporation into the IBMP Adaptive Management Plan.

Habitat Improvement Subcommittee

Ron Hecker provided an overview from a Habitat Improvement Subcommittee the Partners assigned at their July 2013 meeting. The subcommittee was given the goal of making a first assessment of possible habitat improvement opportunities on the North Side. Expectations are that this would be a small assessment done over one year, not requiring NEPA but instead tackling the question—What could future habitat look like? Thoughts pro and con were put forward by the Partners as they decided to convene the subcommittee:

- **Pro.**—Habitat improvement might improve the hunt by drawing animals out of the Park sooner, and helping keep them out of YELL longer. If too large a project, one Partner suggested that starting with a search for and reestablishment of preferred bison migration corridors would be less time consuming than a full landscape analysis.
- **Con.**—It may not be that bison don't return to the Park because of poor habitat outside the Park; instead they return because of hunting pressure and thus modifying the hunt should be the focus of future work. Also, another alternative to habitat improvement might be to haze bison toward all habitat available (not just back into the Park), rendering more animals available for hunting.
- **Noteworthy.**—Timing was mentioned as a tool not often considered. For example: (1) Efforts can be made in the spring, as well, particularly on how wild fire is managed as a tool; and (2) Since animal dispersal is of major importance to having both a successful and safe hunt, one possibility noted for improving the hunt was having the hunt on for a week, then off for a week since this past year the bison responded quickly to the hunt by moving back into the Park.

Ron reviewed the work done by the subcommittee to date via a briefing statement summary that was not available at the time of the meeting. That briefing statement is presented here in lieu of a narrative description of Ron's overview.

Briefing Statement

Agency : Interagency assigned technical committee
 Issue : Habitat availability north of the Yellowstone National Park boundary
 Date : November 20, 2013

TECHNICAL SUBCOMMITTEE

Jodie Canfield (leader), Ron Hecker, Rachel Feigley, Courtney Frost, Keith Lawrence, Steph Gillan, Karen Loveless, Rick Wallen

CONCLUSIONS

- (1) The root of the issue raised to IBMP managers and redirected to this committee relates to how bison are to utilize the newly available habitats provided to them by the adaptive management adjustment that expanded the conservation area to include the whole Gardiner Basin. A resolution focused strictly around habitat enhancement opportunities will not meet management needs. Treatment of weeds in areas used by bison should be an on-going priority and is likely the only short term recommendation that can be implemented without a NEPA/MEPA planning process. Most on the committee suggest the time is not ripe to propose habitat enhancements specifically for bison.
- (2) Alternatively, management of hunting pressure to include periods of time where hunters refrain from killing bison could result in bison venturing out further from YNP and learning the landscape. This combined with a focused hazing effort to encourage bison into new areas when hazing is necessary to resolve private property complaints needs to be discussed at IBMP meeting with Partners and the public. Ultimately bison need security habitat where they are safe from mortality caused by hunting. Otherwise, they will likely move long distances to find that security habitat. It appears that many hunters are unlikely to travel far from the established road system to harvest bison and thus some security habitat could be established by simply allowing bison to learn the landscape and find those hiding places.

- (3) Additional travel access for hunters and/or encouraging/educating hunters to venture off main roads and to use non-motorized means to hunt and transport harvested bison could also help distribute both bison and hunting opportunity.
- (4) Additional conservation easements and/or land exchanges that expand the available habitat base (for bison and hunting) would be supported by all parties.

BACKGROUND

NOTE: The Hegben Lake District of the GNF gave a short overview at the spring IBMP Meeting of a series of habitat manipulation activities that potentially encompass a large portion of the district in the area of Hegben Lake. The work group attention therefore focused on habitat in the north Yellowstone Bison management area.

An identified management goal is to more broadly distribute bison to (1) prevent conflicts with private property, (2) to increase opportunities for bison to occupy portions of the Gardiner Basin, and (3) for providing increased opportunities to sport and tribal hunters. The need for providing hunting opportunity directly relates to another IBMP goal to manage bison abundance by using hunter harvest of 200 to 300 bison per year to reach an end of year goal of 3000 to 3500 bison in the population following all management operations in late spring.

- The desired management condition for GNF, MTFWP and the treaty tribes is to see bison distribute more broadly than current use of available habitats to provide both hunting opportunity and having wild bison on the National Forest.
- Routine hazing of bison back in to the park has ceased as a result of the expanded conservation area.
- Bison currently do not make use of all available habitats; instead they frequently concentrate in the valley bottom.
- Hunting pressure and Management hazing actions act in similar ways to influence pioneering behaviors when bison seek to explore the newly available habitats.
- In Gardiner Basin, there has been an on-going effort to re-establish native vegetation on previously irrigated agriculture fields in both Gallatin NF and Yellowstone NP.

CONCERNS FROM THE AGENCIES

- Distribution isn't solely about the habitat – bison respond to hunting pressure by moving back in to the Park.
- IBMP managers have simply replaced hazing of bison back to the park with increased area to hunt bison which results in the same effect.
- Bison need time and opportunity to explore the Gardiner Basin.
- Not clear if hazing to push animals into new areas will be accepted by public constituencies.
- GNF currently does not have any information or data on carrying capacity for bison on National Forest lands relative to current ungulate populations. There is no reason at this time to assume that the habitat needs to be improved. Need baseline information and several years of observation of bison behavior to see what and where to propose for habitat enhancement.
- Rx burning isn't a panacea (may negatively impact other ungulates and/or result in weed infestations); should be looking at projects that might benefit multiple species and not just bison.
- Weeds are an issue with any kind of disturbance (e.g. Rx fire); cheatgrass invasion in particular is an issue in Gardiner Basin.
- Native Plant Restoration is intensive, expensive, and takes many years to see results.
- Gardiner Basin is very dry; some in the review group are not sure if bison will leave the valley bottom for those drier habitat types even if they were "enhanced".
- The proposed land exchange in which GNF would acquire Shooting Star Ranch includes a highly productive irrigated meadow. GNF has recommended keeping the irrigation system intact and operational to prevent weed invasions in this area.

- Access is a key to distributing hunting pressure. Need to explore opportunity to allow hunting in areas away from Beattie Gulch road / trailhead.
- There is a need to educate hunters about advantages to getting off motorized routes to hunt bison such as using horses and sleds and such.
- All of the IBMP partners want to maintain hunting as one of the primary ways to keep bison populations regulated (300 annually).
- FWP experience with elk has shown that you can expect an increase in hunter harvest when hunter pressure is regulated in space and time.

MANAGEMENT ALTERNATIVES TO CONSIDER

- Allow bison to learn the landscape (delay timing of hunting or schedule short no hunting time periods during the extended hunting season to reduce the selective pressure that chases bison back to the security of the National Park)
- Initiate some strategic hazing to move bison to currently available habitat that is underutilized such as Cedar Creek, Upper Reese Creek, and Cutler Lake. Consider Slip and Slide Creek if these actions show success. This type of hazing could be done when ground troops respond to private property concerns and must move bison away from conflicts, and/or be done in collaboration with some short hunting closures to allow bison opportunities to explore areas on their own after being hazed to suggested destinations.
- Treat weeds and/or reintroduce irrigation in the Devil's Slide Conservation Easement (CUT) to entice bison to utilize this area which is established as security habitat free from hunting.
- Treat weeds, irrigate, and/or do native plant restoration in other areas on the North Side
- Conduct an adaptive management experiment to use burning or fertilization in the areas around Cutler Lake and Eagle Creek Campground to entice bison to distribute in to new areas across a broader landscape.
- Increase the land base within conservation easements (specifically new CUT field that is irrigated)

Update on North Hebgen habitat restoration project

CavanF initially noted that The GNF would be completing an assessment as a precursor to future GNF projects that could impact IBMP goals in the area, including potential habitat restoration and/or improvement, understory manipulation for fire management, and others. Then Courtney Frost and Keith Konan of the Gallatin National Forest described work on the North Hebgen habitat restoration project. They talked about the USFS "Hebgen Duck Landscape Assessment"—named after the two 6th Code HUC watersheds that were considered in the assessment—which Courtney noted is phase 1 in a three-phase Forest Service land management process:

- (1) *assessment phase* = evaluation of the landscape and the extent of its departure from some desired condition;
- (2) *planning phase* = development of the proposed action designed to move the landscape towards that desired condition (this phase requires NEPA analysis); and
- (3) *implementation and monitoring phase* = where work is completed on the ground in an effort to achieve the desired condition for that landscape.

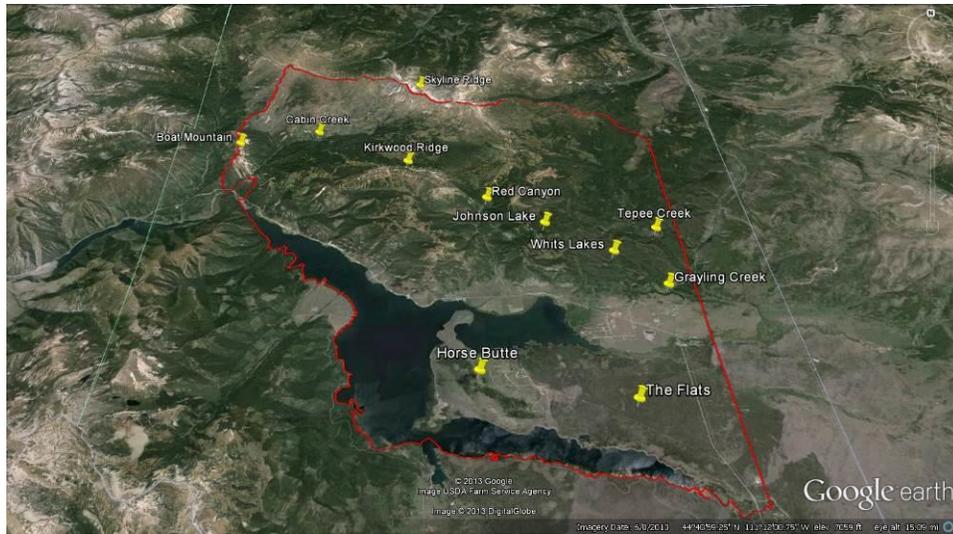


Figure 5.—Area evaluated during the Hebgen Duck Landscape Assessment shown in red. The area encompasses ~95,000 acres. The assessment was completed in April 2012.

The planning phase of the work is called the “North Hebgen Project”. Keith described his role as a silviculturist tasked with identifying forest vegetation treatments to meet desired end conditions. Those end conditions include reducing fuels, wildlife habitat enhancement, and increasing forest resiliency. Keith described tree species distribution, insect and disease condition (with focus on the three most prevalent agents: Lodgepole Pine Dwarf Mistletoe, Western Spruce Budworm, Mountain Pine Beetle).



Figure 6.—Courtney Frost describing current conditions, as well as challenges and opportunities for habitat restoration, on the Gallatin National Forest north of Hebgen Lake.

Courtney then describe that in her work as a wildlife biologist she actually is a habitat biologist since her job is to make sure that FS is providing habitat for native and desired non-native species. She talked about some of the unique habitats present and the desired conditions for those habitats as described in the landscape assessment. She noted that habitat challenges facing the area include noxious weed infestation, insect and disease, and lack of fire/disturbance (resulting in conifer encroachment and landscape

homogeneity). Recently work includes completion of a willow inventory and current development of a beaver management plan.

Courtney noted that the work includes important wildlife goals, for example, assuring nesting, foraging, and cover for migratory birds, as well as big game winter forage, important for bison. She pointed out that the Hebgen Duck Landscape Assessment area includes Horse Butte and the Flats, important to the Partners as being within zone 2, where bison are tolerated for a portion of the year. The project area additionally includes a large amount of area north of Hebgen Lake, where tolerance for bison may be expanded, depending on the results of the State’s MEPA process.

Courtney and Keith’s presentation can be found at <http://ibmp.info/Library/20131121/20131121.php>.

Partner briefings and updates

Don—status of letter to MDOT Deputy Director

The letter regarding an IBMP recommendation to decrease the speed limit in Gardner Basin has been prepared. Some minor edits will be made and then Don, as Lead Partner, will send the letter to the Deputy Director on behalf of the Partners. DaveH noted that the National Parks Conservation Alliance has a fact sheet on bison safety on roads and he committed to send that document out as a .pdf file to the Partners via the facilitator (** Action item 6).

Ryan—update on Gonacon trials

RC presented the following data regarding results from the Gonacon experiment to date, from January – June, 2013:

NON-TREATMENT PASTURE	TREATMENT PASTURE
SEROPOSITIVE cows calving/aborting	SEROPOSITIVE GonaCon treated cows calving/aborting
Pastured with 5 non-treated, seronegative cows (5 of 5 pregnant)	Pastured with 5 non-treated, seronegative cows (3 of 5 pregnant)
Of the 5 seronegative cows: 3 seroconverted 2 aborted 2 were culture positive	Of the 5 seronegative cows: 5(4) remained seroneg no abortions no positive cultures

The next step is to breed the animals again, then repeat the Gonacon treatment. Also, there is potential for a second cohort—to be taken if possible from the capture facilities this winter—to undergo testing this year.

Andrea—status of continuing efforts on bison education brochures

Andrea will meet with Germaine White, CSKT Information and Education Specialist, to create a bison education brochure centered on Native American cultural ties to bison (** Action item 7). Andrea asked for any input—including high quality photography—that Partners, staff, or public might have that would be appropriate to such a brochure. She also note that there are plans in the works to create a workshop based on the content of the educational brochures that have been developed.

Dave—NPS planning update, e.g., remote vaccination EIS update

Covered previously, during seroprevalence discussion.

Pat, Christian—Lawsuit regarding expanded bison tolerance on North Side/Gardiner Basin

The Montana State District Court decision to uphold the adaptive change for expanded bison tolerance on the north side of YELL was appealed to the State Supreme Court. There was a cross appeal. The parties almost reached an agreement, which fell through. Park County is the only remaining plaintiff from the original 2011 lawsuit.

Pat—status of relocation of quarantined bison from YNP to Turner

Nothing new to report. Bison are still on Turner properties.

Scott—updates on IBMP.info

The facilitator noted that the new adaptive management page (<http://ibmp.info/adaptivemgmt.php>) has been released to the web (i.e., no longer in “draft”). The page includes a description of the AM process, plus collects all IBMP AM documents into a single location, presented in reverse chronological order with the current AM plan highlighted. He also noted that the decision matrix diagram in the Partners Protocols has been updated per Partners direction, and reposted to the website.

Thanks to 2013 Lead Partner

All Partners joined in thanking APHIS and Lead Partner Don Herriott for their efforts running the IBMP through the 2013 calendar years. A nice round of applause was to be heard, as well as statement of thanks also to Ryan Clarke and Rebecca Frey of APHIS for their efforts.

Future activity planning

ANNUAL REPORT PLANNING

SB noted that the Annual Report is ~85% complete to date. He described the actions still required from the Partners to complete the report by the end of the year, as set forth in the Partner Protocols.

LEAD PARTNER CHANGE AND DUTIES FOR 2014

The CSKT, ITBC, and NPT will share the Lead Partner role and responsibilities for 2014. EC described that the Tribal entities had met and made the following decisions:

- Each will act as the Lead Partner for one of the three meetings, as follows: spring ITBC, summer CSKT, fall NPT.
- For communication with the press or other outside groups, for decision making such as regularly requested by the facilitator, and for other Lead Partner duties as described in the Partner Protocols, the Lead Partner shall be that entity that will lead the next IBMP meeting. The leader of the fall meeting will additionally be responsible for Lead Partner duties until the end of the year.
- The CSKT, ITBC, and NPT plan to share costs at 1/3, 1/3, 1/3 across the year.

2014 MEETING SCHEDULING

- **April 10**—Normal IBMP meeting (8 AM to 5 PM).
 - *Location:* Best Western Grantree Inn (tentative); Bozeman, MT.
 - *Host and Lead Partner for this meeting:* Intertribal Buffalo Council.
- **July 29**—Save the date; possible field trip.
 - *Location:* CSKT lands near Pablo, MT.
- **July 30**—Normal IBMP meeting (8 AM to 5 PM).
 - *Location:* CSKT Tribal Chambers; Pablo, MT.
 - *Host and Lead Partner for this meeting:* Confederated Salish and Kootenai Tribes.
- **November 20**—Normal IBMP meeting (8 AM to 5 PM).
 - *Location:* Clearwater River Casino; Lewiston, ID.
 - *Host and Lead Partner for this meeting:* Nez Perce Tribe.

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 have the potential for inclusion in AM planning and/or process improvement. These items, as well as other potentially actionable items, 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 during the middle of the day in reaction to numerous past public comments about public input being of less value at the end of the day.

- Please don't slaughter the bison. It is breaking my heart.
- The speaker read a letter from James St. Goddard EE-SUK-YAH Holy Paint Gatherer. A brief summary of the content of the letter that was read aloud follows:
 - Buffalo in Yellowstone have been decimated and have not recovered.
 - We need to send a message to the whites to let this ancient buffalo herd regenerate itself.
 - Done properly, a resolution by the Tribes to place a moratorium on hunting the buffalo will strengthen our Treaty and cultural rights.
 - Tribal treaty rights will always be in place to hunt on public lands.
 - A request to the tribes to implement this moratorium to save the sacred buffalo, and a prayer that this moratorium be implemented as soon as possible.
- Things do seem like they've gotten better over the years. In the 1990s we lost 50% of our tourism due to videos of bison hunting. We suffered as a state.
- But now tribes are talking about an expanded area for bison. FWP is doing a good job with the harvest and also to open up the Teepee Creek corridor down to the Taylor Fork and more. We used to see bison in the Taylor Fork, but not for 12 years now. Forest Service is doing a good job trying to open new lands.
- The Nation is looking at us closely once again. We need to do the right thing in Montana and the rest of the Nation will follow. I urge the Partners, we need to do the right thing.
- Be careful about shooting bison at the Park line.
- We need expanded buffalo range; I am looking forward to that.
- ** We need more discussion on MEPA. I want to hear about the overwhelming support.
- ** We need more discussion on the APHIS mandate that was only briefly mentioned.
- ** We need more discussion on seroprevalence as a goal of the IBMP.
- Dr. Zaluski is an island unto himself with respect to going ahead with bison vaccination; no other Partner supports this work. What does decreasing seroprevalence buy us?
- ** I think that middle of the day public comment is a good idea.
- Yesterday's field trip, with all the Partner/public contact and interaction, was excellent. I don't believe that your range goals and wildlife goals match. And I worry about the seeds you are considering planting. You need to revise the goals of your restoration work to maximize forage for winter production.
- The proposal for year around tolerance for bull bison is a concern.
- I have done research to learn that the estimation of brucellosis exposure and transfer from bison to cattle is very small with respect to that from elk to cattle.

FINAL

- In Texas, I found information where Dr. Zaluski did not say that bison were an issue in brucellosis transfer to cattle.
- There is a 2009 paper that says they need to decide on how and whether brucellosis eradication is even needed.

- In 1948-49 my Dad got brucellosis. It was very bad. He died at 58 years old. Undulant fever does happen; it will not go away.
- Everyone here is a manager, but no one talks about soil health for future generations. We want habitat when all is said and done. But natural regulation is not working.
- Hayden Valley and Daly Lake are done. Once you lose soil health you are done.
- I am scared of 2000 bison coming into the Gardner Basin. They will kill habitat and grass. You can't do that.

- Much of today has been a discussion about seroprevalence base on the idea that decreasing seroprevalence is good.
- The Partners for the most part reacted in agreement to the findings of the Science Panel. Why then, does MDOL instead keep saying this was a kangaroo court?
- Desires don't control biology.
- Launching into an expensive program (bison vaccination) that doesn't help is a disservice to all including a disservice to the ranching community.
- The EA to allow greater habitat will allow a demonstration that best serves all of our purposes. The cattle industry's staying with the status quo is not in our best interest.

*** Meeting adjourned ***

Abbreviations

- AJ—Andrea Jones
- AM—Adaptive management
- APHIS—Animal and Plant Health Inspection Service
- BB—Brooklyn Baptiste
- BFC—Buffalo Field Campaign
- CF—Cavan Fitzsimmons
- CM—Christian Mackay
- CSKT—Confederated Salish Kootenai Tribes
- CWG—Citizens’ Working Group
- DaveH—David Hallac
- DH—Don Herriot
- DSA—Designated Surveillance Zone
- DW—Dan Wenk
- EA—Environmental Assessment
- EC—Ervin Carlson
- GAO—Government Accountability Office
- GNF—Gallatin National Forest
- GWA—Gallatin Wildlife Association
- GYA—Greater Yellowstone Area
- ITBC— Inter Tribal Buffalo Council
- JH—John Harrison
- JS—Jim Stone
- KL—Keith Lawrence
- LG—Larry Greene
- 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
- ML—Mike Lopez
- MO—McCoy Oatman
- MOU—Memorandum of Understanding
- MSGA—Montana Stockgrowers’ Association
- MSU—Montana State University
- MZ—Marty Zaluski
- NEPA—National Environmental Policy Act
- NGO—Non-governmental organizations
- NP—Nez Perce
- NPS—National Park Service
- NPCA—National Parks Conservation Alliance
- NRDC—Natural Resources Defense Council
- Park—Yellowstone National Park
- PF—Pat Flowers
- PIOs—Public Information Officers
- PJ—PJ White
- RC—Ryan Clarke
- ROD—Record of Decision
- RFP—Request for proposals
- RT—Ron Trahan
- RobT—Rob Tierney
- RTR—Royal Teton Ranch
- RW—Rick Wallen
- SB—Scott Bischke
- SEIS—Supplemental EIS
- SK—Salish Kootenai
- SS— Sam Sheppard
- TM—Tom McDonald
- TR—Tim Reid
- 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