

# Summary Report from Interagency Bison Management (IBMP) Plan Meeting December 7/8, 2010

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The following summary report reflects activities at the December 7<sup>th</sup> and 8<sup>th</sup>, 2010 meeting of the IBMP Partners, held at Chico Hot Springs near Emigrant, MT and hosted by the Gallatin National Forest. This report comes from the notes and flip chart records of facilitator Scott Bischke. The report contains a *Facilitator's Draft* watermark to recognize that while these notes were available for IBMP Partner review and modification before publication, no formal signoff procedure was undertaken; thus some Partners may not fully accept the facilitator's recollection/interpretation of events. Attendee deliberators included representatives from IBMP Record of Decision (ROD) signatory agencies: Mary Erickson (GNF), Pat Flowers (MFWP), Colin Campbell (YNP), Christian Mackay (MBOL), Brian McCluskey (APHIS), and Marty Zaluski (MDOL), plus tribal representatives Christina Kracher (ITBC), Tom McDonald (CSKT), and Brooklyn Baptiste (NP). In addition to those at the deliberative table, ~20 staff members from across IBMP organizations and ~40 members of the public were present. A scanned attendance sheet is available from the facilitator.

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## Abbreviations

- AM—Adaptive management
- APHIS—Animal and Plant Health Inspection Service
- BB—Brooklyn Baptiste
- CM—Christian Mackay
- CSKT—Confederated Salish Kootenai Tribes
- EC—Earvin Carlson
- GAO—Government Accountability Office
- GNF—Gallatin National Forest
- GYA—Greater Yellowstone Area
- ITBC— InterTribal Buffalo Council
- JS—Jim Stone
- LG—Larry Greene
- MBOL—Montana Board of Livestock
- MDOL—Montana Department of Livestock
- ME—Mary Erickson
- MFWP—Montana Fish Wildlife and parks
- ML—Mike Lopez
- MOU—Memorandum of Understanding
- MR—Majel Russell
- MSU—Montana State University
- MZ—Marty Zaluski
- NEPA—National Environmental Policy Act
- NGO—Non-governmental organizations
- NP—Nez Perce
- NPS—National Park Service
- 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—Rob Tierney
- RTR—Royal Teton Ranch
- RW—Rick Wallen
- SEIS—Supplemental EIS
- SK—Salish Kootenai
- SS— Sam Sheppard
- TM—Tom McDonald
- YNP—Yellowstone National Park

## Action items identified

#	Who	What	By when
1	Mary	Send thank you note to landowners on behalf of Partners	Jan 15?
2	Mary	GNF takes the lead in organizing how the Partners will fund professional facilitation services for the CWG.	In time for CWG Jan meeting
3	Matt, Ariel, Mary	Contact Jenny Tribe with the request to facilitate CWG.	In time for CWG Jan meeting
4	Matt, Ariel, CWG	CWG to provide an estimate for the number of meetings and facilitation funds they expect to require.	Provide at next IBMP meeting
5	Marna, agency PIOs	PIOs from the agencies to draft a short press release regarding the empowerment of a CWG by the Partners and their upcoming meeting.	In the week before the next CWG meeting (expected Jan11, but date TBD)
6	Matt, Ariel, CWG	CWG to come back to the next IBMP meeting with a recommendation on Partner role at CWG meeting.	Provide at next IBMP meeting
7	Mary	Set up phone conversation with Partners as follow-up to AM questions, particularly those that might be possible in the short term	discussion/OK from Partners at Jan 3 phone call

8	PF	PF provided a late add for the group regarding allowing tribal hunts in the Beattie Gulch area. This change would require changes to both the operational and IBMP AM plan for this year. While the response was generally favorable, MFWP is to firm up the proposal and send to the Partners for agreement as soon as possible.	Email to Partners on specifics ASAP; discussion/OK from Partners at Jan 3 phone call
9	Marna	Following 3 Jan 2011 Partner phone discussion, contact Steve Merritt to post report/notes from this call on IBMP.info.	Jan 31
10	Scott	Supply all meeting materials to MDOL for posting at ibmp.info	Dec 17

## Review of Partner Field Trip with Landowners on the North Side of YNP

On December 7<sup>th</sup> the Partners and members of the general public participated in a field trip with North Side landowners to review bison movement out of Yellowstone National Park into the Gardner Basin. The tour began and ended with short public forums at the Royal Teton Ranch (RTR). Sixty-four people were present for the meeting start at the RTR.

Mary Maj of the Gallatin National Forest served as the tour facilitator, with an itinerary as follows:

1. Royal Teton Ranch: tour set up
2. Park Line/Reese Creek (Alan Shaw RTR, Bill Hoppe local landowner/rancher):
  - a) Hoppe lease on Stermitz property
  - b) Little Trail Creek
3. YNP Stephens Creek Capture Facility (Tim Reid, YNP)
4. Eagle Creek (Mary Maj GNF, Rick Wallen YNP, Bill Hoppe landowner)
5. Fish, Wildlife & Parks Game Check Station:
  - a) Review Brogan's–Quarantine Facility (Becky Frye, APHIS)
  - b) Allotments/Cutler Meadow (Mary Maj GNF, Pat Flowers, MFWP)
6. Royal Teton Ranch: summary and public comment

Unlike the August 2010 IBMP field trip, members of the general public were invited to ask questions of the landowners and of the Partners during the tour. Issues of discussion included bison migration corridors, fencing problems and opportunities, number of livestock turned out, methods and timing of livestock handling operations, numbers of bison moving, role of hunting, elk movement and prevalence, areas of possible cooperation between landowners and the Partners, and more.

Following the field trip, the group reassembled at the RTR for a period of public comment. The facilitator captured thoughts from both this comment period and also from the Q&A during the tour, though per design with a focus on thoughts that might lend themselves to adaptive management applications. Notes on the day's commentary (public, staff, Partners, land owners interspersed) follow.

### Comments from Park Line/Reese Creek stop:

- Fencing (~7 miles) from RTR/MFWP agreement has been laid and is available to modify bison movements. It is in place but has not been raised due to mild winters the last two years. The fencing is expected to be required this year as bison population numbers and snowpack seem likely to move a substantial number of bison north out of the Park during the winter ahead.
- Bill Hoppe leases 62 acres in the Trail Creek vicinity. They hay the property in the summer; hold calves and cows in the spring. He sees bison (and elk) come through Trail Creek and they do knock down fences both in the Trail Creek area and even more at his own property above Gardiner. He has had far better luck with pole fences than with barb wire as in the latter case wire can be torn down for long

distances versus a couple cross beams with pole fences. He said that he does not desire to hinder migration and that he is using a new style of pole fence near his home above Gardiner that is working well.

- Question: could the same fencing actions taken at the RTR be applied to the east side of the Yellowstone River on land leased by Bill Hoppe to thereby provide greater bison tolerance outside the Park? Bill expressed openness to the idea. He also expressed openness to working with NGOs.
- A statement made that AM efforts should be driven by how bison use the landscape, how and where they move, and with a focus on safety (e.g., including Department of Transportation folks in the conversation).
- Alan Shaw of RTR noted some may not know that private lands to the west of the Old Yellowstone Road are part of a conservation easement.
- Lands used by Bill Hoppe were not in the IBMP Record of Decision (ROD); the lands of the RTR are explicitly described in the IBMP ROD.
- For 2010/11, state-permitted hunting is allowed only in the Eagle Creek area. Only tribal members are allowed to hunt on federal lands outside YNP. Could these rules be made more liberal to increase the take of bison moving outside the Park by hunters?



*North Side field trip; Park Line stop.*

Comments from Stevens Creek stop:

- The Stevens Creek facility was codified by the IBMP ROD. During capture operations, staff efforts generally start before sunrise and end by 4 PM. The facility includes a lab for blood analysis. Operations are modified yearly to make upgrades in numerous areas including animal welfare and human safety. The Stevens Creek area was the latest addition to the Park, back in the 1920s or 30s, providing for needed storage, corrals, etc, and more recently for bison management operations. The facility has held up to 400 animals at once, though capacity is generally considered to be ~200. Three years ago the facility was in operation from February to early May. The facility has eight paddocks allowing separation of animals having unique characteristics.
- A statement and agreement was made that by confining animals tightly, this facility increases the potential risk of bison-to-bison brucellosis transmission. There have been ~six bison abortions at the facility over the years.
- Three similar facilities operate on the West Side: airport and Horse Butte (temporary), and Duck Creek (permanent).
- Cost of operating the facility is highly variable, depending on level of bison out-migration from the Park and management needs. Some years the cost has been zero; in busy years a guess was made that the yearly cost of bison operations could be up to \$100,000 or more though a strong qualifier was placed that a full accounting review would be necessary to determine an accurate figure.



*Stevens Creek capture facility.*

Comments from Eagle Creek stop:

- Tribal hunting can and does occur in the Eagle Creek drainage.
- Bill Hoppe noted that ~30 years ago a fencing effort was made to modify bison movement patterns. At that time the bison created a new trail up Crevice Creek which they have been using ever since.
- Bill Hoppe brings cattle up from the Yellowstone River/Trail Creek lease to his barns above Gardiner if conditions warrant.
- Questions centered on what would happen if the Partners hazed bison to Eagle Creek? Bison might simply go back across the Yellowstone River. Statements were made that the bison move based on feed and thus the sedges in the bottom of Eagle Creek draw them, as does the vegetation in the town of Gardiner.
- A concern is that Partners do not want to haze bison into hunters but want the bison to exhibit natural behavior. However, Partners feel strongly that bison migration behavior can be modified as recently documented in the Jackson Hole area of Grand Teton National Park.
- A statement was made that if we want to increase bison hunting opportunities, we need more habitat.
- Recognition that the USFS has an area called Hays McPherson Ranch that could provide winter range for the bison.
- Several thoughts expressed that the Zones (1,2,3) described for the North Side in the ROD no longer (if they ever did) represent a logical progression of brucellosis transmission risk. Why can't AM be used to change the zone boundaries? Multiple statements were made that public land with little or no risk of transmission (e.g., no cattle leases) should not be declared Zone 3 (i.e., no bison tolerance allowed). Currently some such land is declared Zone 3.
- A thought expressed that the coin has two sides—increasing habitat on one side, decreasing prevalence on the other—and that both options must be pursued.
- Bill Hoppe noted that on a migration path between YNP, Eagle Creek, and over to Trail Creek, perhaps 35-40 different land owners are impacted by bison movement and that having 50 bison in your yard is not inconsequential.



*Stop at Eagle Creek overlook.*

Comments from MFWP Check station stop (Brogan's quarantine facility; Cutler Meadow):

- Bison being held at Brogan's are all sero negative and ready to be moved. There are two similar facilities further upstream along the Yellowstone River. The quarantine facilities were described in the ROD with a plan of holding two cohorts of ~100 animals each (1/2 of which would be slaughtered as part of testing). The first cohort has passed all conditions to be considered brucellosis free. Second cohort requires all females to have calves and six months later to be sero negative, then it likewise will be available to be relocated.
- Release of these two cohorts is considered "soft" release as they will require five years of "assurance testing". The key for APHIS is that the quarantine facilities have provided proof of concept that quarantine does work to produce brucellosis-free bison. At the discretion of the state, future operations could allow for three year quarantine with no assurance testing. Question—could the requirement of the 5-year assurance testing be dropped to facilitate moving the two cohorts?

- In-breeding, given the confinement of the two cohorts, is/ was possible though considered a side issue. The key to the quarantine study was to show proof of concept for creating brucellosis-free bison that could be available for transfer to locations outside the GYA. A third cohort is not expected. Goal of the project was achieved.
- Final disposition of these two cohorts is under the jurisdiction of MFWP. Request for proposals have been put out with return proposals having mixed results. A lawsuit is underway regarding the potential to conditionally move bison from the first cohort to Turner Enterprises.
- A request was made to allow the general public to take part in a final scoping on where the bison should go. Strong suggestions were made that (a) the disease-free bison could be moved to State of Montana Wildlife Management Areas (WMAs), even if they needed to be placed in fenced enclosures, and (b) WMAs already have cattle, why not bison which are actually wildlife?
- *Turning to Cutler Meadow*—up to 50 bison have made it to Cutler Meadow in years past. None over the last two years of milder winters. There is no structure (most likely a cattle guard) on the road in the pinch point of Yankee Jim Canyon; the Park County Commissioners would not allow this structure.
- The GNF, working with vegetation and soil specialists, has been doing restoration work in Cutler Meadow to rid the area of weeds, principally cheat grass.
- A statement was made that there are five cattle allotments on the GNF in this area but none south of Cutler Meadow. If so, how can some of the public GNF lands in this area be declared Zone 3? A statement made that we have the tools available to allow bison into Zone 3 (for example by grazing permit management) and that this does not have to be a bison or cattle choice.
- Thoughts expressed that the declaration of Zones 1,2,3 were shaped by a blend of history, politics, geography, ease of management, and personality.
- A question posed: under what authority does MDOL act when it tells the federal government (i.e., APHIS) what to do?



*Overlooking Cutler Meadow.*

*Comments from by public at field trip closing forum at the RTR:*

- Many statements were made that the field trip was extremely worthwhile and that all greatly appreciated the land owners' willingness to meet with the Partners (action item #1).
- Many statements of thanks to the RTR for use of their wonderful facilities.
- Statement that interacting with people face-to-face leads to far greater understanding of the issues all parties face, as well as the potential opportunities for adaptive management cooperation.
- Thanks to Partners for having two field trips in less than one year. Also many statements of appreciation to Partners' for including public comment and questioning as part of each field trip stop on the North Side.
- Statement that brucellosis persistence data reports from past meetings have shown us that risk of transmission will never be zero. Given that fact, what is an acceptable level of risk? And especially what is an acceptable level of bison/cattle transmission risk given that we know elk/cattle transmission will occur?



*Meeting at the Royal Teton Ranch.*

- Multiple statements made that the APHIS rule changes creating designated surveillance zones is a game changer.
- Statement that the Park County Commissioners can't sign off on untested animals coming into Park County in Phase III. If the animals are tested and sero-negative for brucellosis, then movement of these animals onto private lands in the county is not a problem to the Park County Commissioners.
- Suggestion made that these field trips and IBMP meetings be advertised with a public service announcement or in local papers.
- Statement that little cattle conflict was observed or described during the field trip.
- Statement of concern over Park County Commissioners' stance, especially given fact that sero-positive, untested elk are free to wander about through the landscape, including into cattle herds.
- A request that Partners look at what role slaughter plays in changing immunity characteristics of the bison herd.
- A request that bison be managed as wildlife.
- A statement that bison could move down the east side of the Yellowstone River with limited strategic fencing and/or easement purchase.
- Statement that we are talking about very few cattle on the North Side; that provisions could be made for Bill Hoppe and Hank Rate.



*Bozeman High students question Partners on IBMP issues.*

## Meeting summary notes

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Due to multiple facilitator activities, the notes presented are not comprehensive but capture highlights of Partner discussions. Interested parties are asked to also see the IBMP web site ([www.ibmp.info](http://www.ibmp.info)) where briefings, maps, presentation slides, and/or documents created for this meeting are posted.

### **STATUS AND SIGNING OF FINAL REPORT FOR 2010**

Marty Zaluski and Christian Mackay of MDOL presented the IBMP Final Report for 2010 as MDOL's final act as 2009/10 Lead Partner. Marty noted that the report had been complete for about a month. Sufficient copies were circulated for signature so that each group at the deliberative table might have an original copy. The Final Report is available at [www.IBMP.info](http://www.IBMP.info).

### **REPORT ON POSSIBLE SELF-FORMATION OF CITIZENS WORKING GROUP (CWG)**

As part of the August 2010 IBMP meeting, the Partners reaffirmed their desire to see that some type of an open citizens' process be started. They recognized that citizens could self-form, with no direction from the Partners. Several Partners noted that they would be open to, and highly motivated to listen to, input from a diverse, citizen-formed working group that included strong representation from livestock and bison conservation interests. An agreement was made that the Partners would set aside time at this December meeting for a presentation from a self-forming CWG, assuming that the group had diverse representation.

In response, Matt Skoglund of the Natural Resources Defense Council and Ariel Overstreet of the Montana Stockgrowers convened an initial CWG meeting in November. Matt and Ariel provided a report to the Partners on that meeting, saying that it was well attended by a diverse set of interests and that other groups unable to attend had also expressed interest in participating. Matt and Ariel noted that the time might be ripe for a CWG to provide input to the IBMP process given that recent changes in APHIS rules, at Horse Butte, and others mean that (a) the IBMP is operating in a "new landscape" and (b) that adaptive management allows the Partners to react to the new realities on the ground.

Four requests—centered on facilitation, empowerment, goals, and partner participation—emerged from this formulative meeting of the CWG. After Matt and Ariel presented these requests, an open

discussion between the Partners and members ensued, with highlights recorded as follows:

- **Request #1: Funding for professional facilitation for the CWG meetings.** The formulative CWG quickly recognized that it requires facilitation help for its meetings. A number of endorsements were provided for Jenny Tribe of Missoula, as she has been instrumental in successfully leading other CWGs focused on natural resource issues. The Partners agreed to fund professional facilitation services (action item#2), with GNF taking the lead and all Partners providing financial support. Also, Matt, Ariel, and the GNF took on the responsibility of contacting Jenny Tribe with the request (action item #3). The Partners also requested that following its tentatively planned Jan11 meeting, the CWG provide an estimate for the number of meetings and facilitation funds they would require (action item#4).
- **Request #2: A statement of empowerment from the Partners.** The CWG members requested recognition from the Partners that the efforts of the CWG will be used by the Partners in their adaptive management efforts. Partners expressed that willingness to take “a leap of faith” with the CWG, committing to fully considering their input as a part of the decision making process (the Partners make all decisions based on consensus). Initially the CWG asked for a letter of empowerment from the Partners but later discussion resulted in agreement that this statement of endorsement in the meeting notes would suffice. The Partners did note several caveats: (1) that while the CWG may consider a large variety of issues, the Partners are constrained within the confines of the ROD; (2) that the CWG will have the most influence when it returns with consensus agreements; and (3) that the CWG is not meant as a replacement for the authority of the Partners—the Partners cannot give their authority away.

In closing the empowerment discussion, a request was made by the public and agreed to by the Partners: that the communication team (PIOs) from the agencies draft a short press release regarding the empowerment of a CWG by the Partners and their upcoming meeting (action item#5). That press release would be sent to papers in the week before the next CWG meeting, tentatively planned for January 11.

- **Request #3: Direction from the Partners on the initial goals of the CWG.** As part of the leap of faith mentioned above, the Partners generally did not believe it necessary to provide a set of tasks for the CWG to tackle, but rather let the CWG determine those goals itself. PF provided the only exception, saying that no charge from the Partners could result in CWG chaos. Some citizens agreed. Thus pressed, MZ provided a list of issues for the CWG to start with, and all Partners agreed (the list was jokingly referred to as “Marty’s list” for the rest of the meeting; PF agreed that having this starting place was sufficient):
  - 1) *Bison restoration to other locations in the country*
  - 2) *Increased habitat*
  - 3) *Population modulation and control to meet available resources*
  - 4) *Brucellosis prevalence reduction*

PF later added a fifth idea to the list: *Develop strategies for bison management consistent with recognition of prevalence of and risks associate with brucellosis in elk.* The Partners agreed that this fifth item was not equal to the others, but could be used to texture discussion on the others.

- **Request #4: Partner participation in the CWG.** The CWG requested Partner participation in the CWG. The discussion vacillated between the positives of this participation—for example making sure that the CWG was working on items valued by the Partners, that the Partner agency needs were being addressed; and negatives—for example having the Partners’ hang ups and biases imposed on the CWG. Also, the pros and cons of having decision makers versus technical representatives from the agencies was discussed, as well as the position the Partners would take in the CWG meetings (i.e., at the table or as secondary support). Other thoughts put forward included having a rotating Partner liaison or not having any Partners at the CWG meetings but allowing extended CWG presentations to the Partners at



regular IBMP meetings. Given the great diversity of opinions, an action item (#6) was given to the CWG to come back to the next IBMP meeting with a recommendation on Partner role at CWG meeting.

A couple of other discussion points emerged. Partners noted that others outside the CWG process still needed to be able to have a way to provide input. They stated that the CWG allows dialogue between the Partners and the public but that it should not replace the mandated three minute testimony period employed at IBMP meetings.

### **REVIEW OF ADAPTIVE MANAGEMENT (AM) SUGGESTIONS FOR 2010/11 SEASON**

Rick Wallen, on behalf of the Technical Committee, presented the results of a review of 33 adaptive management recommendations provided by the Partner agencies in August and compiled in October. Rick provided a briefing statement and a review of the AM recommendations, both of which can be found at [www.ibmp.info](http://www.ibmp.info). The briefing paper is largely repeated here.

The Technical Committee was charged with finding the recommendations that result in consensus, and prioritize the recommendations that need further discussion. Their deliberations resulted in:

- 17 Adaptive Management recommendations that are ready for moving forward with (i.e., accepted)
- 4 additional recommendations that need further discussion by the Technical Committee to resolve (i.e., expected to be accepted)
- 13 recommendations that need further discussion by the managers to resolve whether adaptive management adjustments should be implemented. These 13 recommendations fall in to the following nine issue areas:
  1. Limiting bison occupancy in the Flats south of the Madison Arm of Hebgen Lake
  2. Limiting bison occupancy on the Horse Butte Peninsula
  3. Increasing tolerance for bison to occupy areas in close proximity to the conservation area boundary
  4. Evaluation and adjustment of management zone boundaries
  5. Strategic fencing near cattle occupied lands
  6. Transfer of surplus bison to quarantine facilities
  7. Completion of statewide bison management plan
  8. Population abundance thresholds
  9. Strategies for reducing brucellosis prevalence

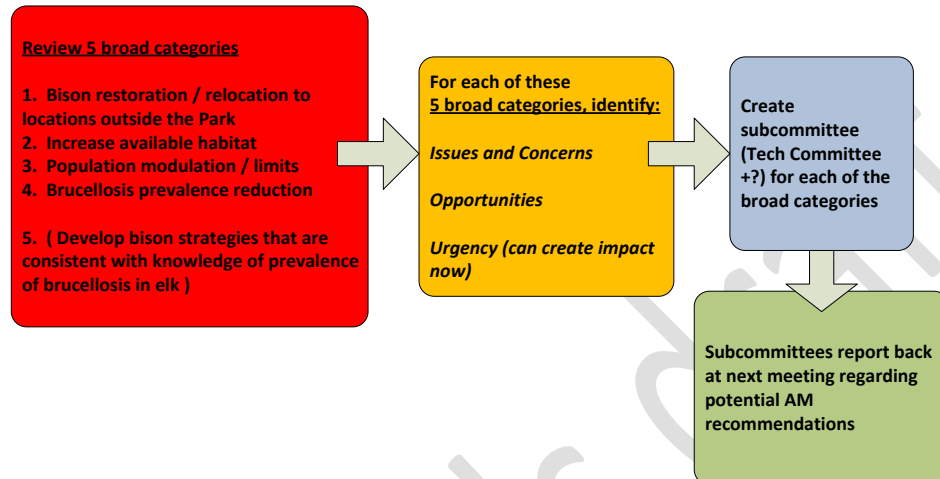
The Partners spent some time considering the results of the Technical Committee review and deciding how to proceed. Discussion took place about the changed landscape (also referred to as the “new blueprint”—e.g., new APHIS rules) and how it offered new possibilities for AM. A counter statement was made that the Partners must drive toward a decrease in prevalence as well as an increase in habitat tolerance.

While sharing perspectives during this round robin, it became clear that the Partners did not see value in trying to rehash the 13 recommendations under dispute. Instead they decided to talk more broadly and first discussed how to categorize their AM concerns. Initially they began by using the lumping into nine categories as done by the Technical Committee (see above), then PJ suggested a different lumping (tolerance for bison on public land, habitat, hunting, safety, population size, infection and transmission). After some debate the Partners decided to instead screen their AM concerns through the filter of “Marty’s list” as noted under the section on the CWG.

The discussion here, by Partner request, was broad and free flowing. The Partners recognized that each of the four items on Marty’s list was linked (for example population control [#3] might not be needed if sufficient level of relocation [#1] could be accomplished). Partners agreed that none wanted ship and slaughter to be the final disposition for bison (PF said that this was the first time he recalled this statement being universally made; that in the past ship and slaughter was looked at as an acceptable option). It was noted, however, that bison slaughter could not be taken off the table as a management option if quarantine, hunting, or other options fail to sufficiently reduce risk of brucellosis transmission.

A question came out of the discussion that was not answered but also not assigned as an action item: Whose responsibility is operational quarantine? The item has been added to the Parked List (see section below) for possible future consideration.

Following a lunch break, the Partners agreed to take on the following process to better organize their thoughts on the AM issues outstanding:



The following notes derive from a round table discussion of the five categories in the red box above.

- **Bison restoration to other locations in the country**

- Issues and concerns

- (1) Assuring that test-negative, non quarantined bison are available for relocating; bison cohorts in current feasibility study need to complete successful quarantine and be moved.
    - (2) Restoring bison as wildlife in MT; to do so we need to evaluate where they can live on the landscape.
    - (3) Moving animals that sero-convert; how to keep separate from livestock; reception of animals by other states (need for education before relocations can occur).
    - (4) As bison relocation is largely about politics, we need a public relations/education campaign to address issues such as the “battle” for grass.
    - (5) Need the support of landowners and sportsmen.

- Opportunities

- (1) To help decision making, Partners need to create a matrix that sets forth all the permutations and available options—for example shipping in-state or out-of-state, to tribal or public or private lands; male or female; sero negative or sterilized; and so on.
      - (2) Need discussions with tribes about increasing their holding capacities.
- >> Note that both (1) and (2) here were described as short term in nature with high urgency.

- Urgency

- (1) Partners need to develop more options than those currently under consideration.
    - (2) One Partner felt this is the best short term action with the highest urgency (meaning can be done over the coming winter/spring season).
    - (3) Other Partners felt relocation is not viable over the next 6 months.

- **Increased habitat**

- Issues and concerns

- (1) Large North Side out-migration of bison expected this winter.

- (2) Need to find conflict free places outside YNP where bison can move to and be considered as wildlife, including for hunting.
- (3) Core issue for USFS is to provide suitable habitat for bison (part of multiple use mandate).
- (4) Need to haze at the boundary as long as it is effective.
- (5) Need to address brucellosis transmission risk.
- (6) Need to maximize the use of all available lands for bison migration before we set limits on desired maximum bison population in YNP.
- (7) If we have habitat expansion we need also to have methods of controlling the bison population.
- Opportunities
  - (1) Long term revisit zone designations to allow for increased habitat but only with risk of transmission goal of IBMP met. Suggestion that a new outer perimeter be established for bison over a 10-year period.
  - (2) Recognition that if we decrease sero-prevalence, we can increase available habitat outside the Park.
  - (3) Need to create blueprint for zone boundary changes to determine if an SEIS or similar would be appropriate.
- Urgency
  - (1) Request for increased tolerance. Request for increased hunting and related request to increase habitat for hunting.
  - (2) Request that if Partners to use ship and slaughter that they only do so with test-positive animals.
  - (3) Explore areas outside the Park this winter, including potential to haze to Eagle Creek and Maiden Basin then increase hunting opportunities in these areas.
- **Population modulation and control to meet available resources**
  - Issues and concerns
    - (1) Biggest issue is how to avoid large trap and slaughter events?
    - (2) What methods can we use to control population? How can we best understand when we are approaching need for population control and “get ahead of the curve” so as to avoid major ship and slaughter events?
    - (3) Concurrence that limits to population of bison in the Park are legitimate but that they are part of the first two topics on “Marty’s list”.
    - (4) Who decides and what are the decision criteria for when to start and stop ship and slaughter operations?
    - (5) Recognize that all of these issues are linked and also that we must move on all fronts at once if we are to meet the twin mandates of the IBMP.
    - (6) For hunting we must look at available habitat, landowner tolerance, and risk of disease transmission.
  - Opportunities
    - (1) Need to continue modeling efforts to better understand movement as a function of bison population, snow pack, and other drivers.
  - Urgency
    - (1) Expand hazing and hunting opportunities this winter. Hunting could be expanded from 44 to 144 animals. Tribes could consider hunt on the west side of the Yellowstone.
- **Brucellosis prevalence reduction**
  - Issues and concerns
    - (1) Disease underlies the entire conflict and cannot be set aside. The problem remains intractable unless and until prevalence is decreased.
    - (2) Better use and delivery of vaccinations.
    - (3) Need to avoid actions that concentrate wildlife and thereby increase risk of transmission.

- (4) Potential concern if vaccine use impacts multiple use mandates.
- Opportunities
  - (1) Potential for novel techniques such as immuno-contraception to become available.
  - (2) Are there new vaccines becoming available?
  - (3) Recognition that in the 1950s 150,000 cattle herds in the USA were infected with brucellosis; today there are effectively zero. Thus big changes are possible potentially even in control of wildlife prevalence.
- Urgency
  - (1) Advocate for continued Partner tracking and discussion (with specialists as needed) of emerging disease eradication techniques. Emphasis on immediately doing a literature review on progress toward effective immuno-contraception.
  - (2) Need to keep pushing to have the EIS on remote vaccination completed. Request for Partners to write a letter of support for remote vaccination option #3 in the DEIS.

While the Partners started with five areas, on further discussion they decided that the fifth area below informs or provides input to the key four areas discussed immediately above. That said, they did decide to break down this fifth item in the same manner as the others, as follows.

- **Bison management strategies consistent with the knowledge of brucellosis prevalence in elk**
  - Issues and concerns
    - (1) Known brucellosis prevalence in elk of 5-10% in the GYA.
    - (2) With bison management we are much more aggressive and much more risk averse than with elk. The difference likely stems from constituency, history of disease prevalence, and differing habitats elk and bison operate in.
    - (3) Concern about winter feeding grounds concentrating elk and spreading brucellosis.
    - (4) IBMP Partners cannot manage brucellosis in elk but there are seams and crossovers that do come into play in bison management.
    - (5) Big question is who is infecting whom? If there are more infected animals on the landscape, what does that do to bison and cattle disease?
    - (6) Caution that Partners need to recognize that recent elk to cattle transmissions do not mean that the risk of brucellosis transmission from bison to cattle is suddenly non-existent.
    - (7) Potential of an action by the upcoming Montana State legislature directed toward changing management of elk to something similar to management of bison.
  - Opportunities
    - (1) Compare relative risk of transmission from elk and bison.
    - (2) There are lessons to be learned from elk that might be applied to bison management, or vice versa.
  - Urgency
    - (1) Brucellosis transmission from wild elk to livestock has occurred at approximately 15 locations in the Greater Yellowstone Ecosystem since the IBMP was completed.

The Partners decided to table these items and hold a follow up phone call in early January to discuss especially those items listed as possible for short term AM (items listed under the Opportunities and Urgency subtopics) (action item#7).

## GENETICS ASSESSMENT REPORT

Rick Wallen presented a report on a recent study on genetic diversity of bison in YNP. The full report can be found on the Greater Yellowstone Science Center at <http://www.greateryellowstonescience.org/subproducts/122/7>. Rick's briefing statement to the Partners, largely reproduced verbatim below, can be found at [www.ibmp.info](http://www.ibmp.info).

Yellowstone National Park recently collaborated with the University of Montana (Drs. Luikart, Allendorf, and Schwartz) to assess population substructure and impacts of culling Yellowstone bison. Genetic differentiation between the central and northern breeding herds of Yellowstone bison based on mitochondrial DNA extraction from feces resulted in rather large differences ( $F_{ST} = 0.402$ ). However, estimates of differentiation between the breeding herds based on microsatellite DNA analyses showed a much smaller difference ( $F_{ST} = 0.02$  in 2006;  $F_{ST} = 0.01$  in 2008).  $F_{ST}$  is the portion of total genetic variance contained in a subpopulation compared to the total genetic variance. Values can range from 0 to 1 and high  $F_{ST}$  implies considerable differentiation among subpopulations. In bison, mitochondria are normally inherited exclusively from the mother, while microsatellites, which are repeating sequences of 1-6 base pairs of DNA, result from a mixing of DNA from both parents. Thus, while the mitochondrial DNA results suggest female Yellowstone bison exhibit moderate to high fidelity to their breeding ranges, the microsatellite results suggest that there is substantial gene flow between the two breeding herds, likely facilitated more by males than by females.

We constructed an individual-based simulation model to examine how actual management strategies influence the effective population size ( $N_e$ ) and allelic diversity in realistic population scenarios similar to management actions conducted with Yellowstone bison. Simulation scenarios included a population size ( $N_c$ ) ranging from 250 to >3,000 bison, a wide range of variance in male reproductive success, loci with 2, 5, or 20 alleles, and several realistic population culling strategies causing fluctuations in  $N_c$ .

The resulting effective population size ranged from 746 to 1,176 with high to moderate variance in male reproductive success, respectively, for a stable population size of 2,000 bison. The  $N_e/N_c$  ratio remained stable around 0.33-0.38 for high variance in male reproductive success irrespective of the population size or the culling scenarios, but dropped to only 0.04 with extreme variance in male reproductive success. Heterozygosity was maintained at >95% over 200 years (28 bison generations) for all simulation scenarios with  $N_c > 500$  and non-extreme variance in male reproductive success.

The conservation of allelic diversity depended more on average  $N_c$  than  $N_e$  in fluctuating populations. Simulations suggest that 95% of allelic diversity will be maintained over 100 years if the  $N_c$  remains above 2,000 - 3,000 bison. However, less than 90% of alleles will be maintained at loci with more than five alleles (e.g. at immune system loci). Variance in male reproductive success had little effect on allelic diversity except under unrealistically-extreme variance in male reproductive success.

When asked for a succinct summary, Rick stated that high population fluctuations appear to not be a problem for genetic diversity. Genetic diversity is negatively impacted, however, when populations are continuously low. He also stated that most conservation geneticists suggest trying to preserve 90-95% of genetic diversity over a 100-200 year timeframe.

## **PARTNER BRIEFINGS**

### **Christian—Status of letter sent out to County Commissioners on IBMP Partner willingness to attend public meetings held by the counties**

Letters sent our right after the last meeting. No letters of response sent back from any commissioner.

### **Brian—update on letter of response sent to Commissioner Malone**

Yes, response sent after last meeting.

### **Brian—Update on the pending APHIS interim rule that will revise the current brucellosis program and on potential of creation of a State/APHIS MOU under the new brucellosis rules**

APHIS is already working under the Interim Rule. A working group will develop the final rule. Expect publication of the final rule in April 2012.

### **Becky—Report out on analysis of data from bull bison**

The Bull Bison Study has completed testing of samples collected in 2010. No data has been analyzed, only raw data available to date. Bison sampling:

- 39 individual bulls were sampled

- 25 (64%) were seropositive
- 4 bulls were found to have lesions of the reproductive organs consistent with brucellosis infection
- 2 bulls were culture positive for *Brucella abortus*; neither culture suggestive of ability to transmit an infective dose to a female.

**Pat—1) get signatures on RTR agreement from CSKT, NP, and GNF special agent; 2) follow up on legal determination of changing haze back date from Apr 15 to May 1 on RTR agreement**

1) Stalled on signatures with the document currently with the Nez Perce Tribe; a signature from the USFS is also required. 2) The RTR did agree on the changes.

**Pat—Meet with CSKT, NP, Umatilla, Shoban, GNF regarding potential of adding winter/spring west side hunt.**

MFWP, joined by MDOL, met twice with tribes. The talks focused on safety, not on quotas. To date we have been successful on coordinating with hunters on the ground. Biggest difficulty occurs if large out-migrations take place when all groups are hunting (January). Groups will continue to stay in contact.

**Pat—Complete review of fencing option along the highway (~1 mile) to push bison toward HB & away from S Fk of the Madison; meet w/ fencing contractor to look at directional fencing options.**

No meeting with fencing contractor occurred. There are no funds for this project.

**Christian—status of MT Stockgrowers lawsuit regarding May 15<sup>th</sup> turn back date for Horse Butte**

No further update. There is no reason to believe that the results of this case will be repealed thus the issue can be removed from the update list for every IBMP meeting.

**Mary, PJ—status of lawsuit from environmental organizations and others to stop federal agencies from killing bison**

No news to report.

**Pat—status of transfer of quarantine animals to Turner and pending lawsuit**

No news to report.

**PJ—status of draft EIS for remote brucellosis vaccination**

Still in process. Needs commitment from all Partners, not just the NPS to proceed. The DEIS has three alternatives: (1) vaccinate at capture facilities (no change); (2) do #1 plus remotely vaccinate calves and yearlings; (3) do #2 plus remotely vaccinate adult females if in first two trimesters. The public comment period ended 24 Sep 2010 and comments are being analyzed. Final report is expected by Christmas. Final EIS will follow. The Park expects that the ROD for the EIS will come in late 2011, at the earliest.

**2011 MEETING SCHEDULE**

The Partners settled on their scheduled 2011 meetings as follows:

Date	Time (expected)	Location	Host	Notes
Apr 6-7	Noon to noon	MFWP or GNF (to be determined)	GNF	...
Aug 4-5	9 AM 8/4 to 5 PM 8/5	Polson, MT	CSKT	Expect Aug 4 to be full day tour of National Bison Range and related CSKT programs, Aug 5 to be 830 AM to 5 PM regular IBMP meeting
Nov 30-Dec 1	Noon to noon	Chico Hot Springs, MT	MFWP	MFWP expected to take over as lead IBMP Partner Nov 1, 2011

## Parked items for future meetings

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During the discussion of future meeting schedule the Partners also reviewed the past “parked items” list, plus some as yet undefined items from this meeting. The following parked items list to be considered as potential agenda items for future meetings resulted:

- (1) Discussion on whose responsibility is operational quarantine?
- (2) MFWP to sit down with landowners and identify AM opportunities based on their constraints
- (3) Plan winter West Side field trip to occur in winter of 2012.
- (4) NPS to share experience in managing bison interactions with traffic along roadways. Partners to engage with Montana Department of Transportation to initiate a discussion regarding traffic safety in the bison conservation area. A request was also made to include the CWG and/or Buffalo Field Campaign in the presentation with a topic area of “living with bison”. To be considered for April 2011 meeting (action item # 7). Some discussion that this item should be lead by MFWP.
- (5) A request was made by MFWP that the Partners begin talking about conservation easement funding. The Partners agreed and asked that this item be added to the next agenda. A statement was also made that the CWG could be helpful in this realm.
- (6) PF provided a late add for Partner consideration regarding allowing tribal hunts in the Beatty Gulch area. There was not sufficient time for the Partners to discuss this concept as it occurred very near the close of the meeting. This change would require changes to both the operational and IBMP AM plan for this year. While the response was generally favorable, MFWP is to firm up the proposal and send to the Partners for agreement as soon as possible. Discussion will occur during a planned January 3 phone call between the Partners (action item # 8).

## Selected comments from public (December 8<sup>th</sup>)

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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 attempted to capture those comments from the public that appeared to be solution oriented and have the potential for inclusion in AM planning. These items are called out with a “\*\*” in the listings that follow.

Names associated with comments are available from the facilitator. However, they are not included here to facilitate focus on the comment rather than the speaker. Line breaks in the numbering indicate a new speaker.

1. Statement that the IBMP is a box that harms, not helps, our last free-roaming, genetically pure bison. That box is hard for the Partners to get out of and puts unneeded constraints and limitations on their possible actions. Request that Partners go back to review past decisions and get themselves out of the box.
2. Statement that hearing PF describe the agreement with the RTR provided insight to how severely limiting that agreement is to bison movement and opportunities for natural bison migration patterns.
3. \*\* Request that the Partners remove the quarantine facilities on the North Side and instead use these as habitat for bison.
4. \*\* Request for USFS to provide additional bison habitat.
5. \*\* Statement of support for the GNF to convince MDOL that bison can be on Forest lands with minimal risk to cattle.
  
6. Statement that we are lucky that we still have bison, that they are a precious resource, particularly when considering that they are the last remaining pool for wild genes.
7. Statement of excitement to see the focus from GNF on assessing what we can do immediately.
8. \*\* Statement that there are places in MT that want bison now—CMR Wildlife Refuge, for example—but that these places won’t act until the State of MT takes action to reclassify bison as wildlife.

9. \*\* Statement that having a goal of the complete eradication of brucellosis from bison seems absurd (especially knowing that elk will continue to carry the disease). Instead our goal should be to eliminate brucellosis from livestock. Responsibility should rest with the livestock industry, not wildlife interests.
10. Statement that the Partners consider the overall ecological ramifications of capture and slaughter or shipment of bison. For example, recognition that bison may be playing an increasingly important role in feeding grizzly bears as climate change and disease reduce white bark pine crops and whirling disease and lake trout reduce cutthroat trout availability. Statement that bison may play a caloric repository and distribution role similar to salmon in the Pacific Northwest. If too many bison are removed from the ecosystem, that role could be altered and the ecology of the GYA along with it.
11. Statement of great appreciation for the North Side tour and including public comments in the tour.
12. \*\* Statement of concern that Native Americans did not take the lead animal in a migration so as not to diminish the migratory knowledge of the herd and request that we not do that either.
13. Statement that we need to give back before we take.
14. Statement of sadness that all Partner answers to potential large out-migration of bison from the Park this winter seem to include killing or shipping.
15. \*\* Statement that habitat is there for large out migrations; we simply need to provide migration corridors and allow the bison to move their on their own.
16. Statement/request that in their decision making the Partners take into account that these are the last continuously wild populations of bison, with high genetic diversity, and that they are important to people across the globe.
17. Agreement with earlier statement that the IBMP is a box and for that reason it fails. Instead we should use Native wisdom to help guide our treatment of the bison.
18. \*\* Offer from Buffalo Field Campaign to speak about safety in living with bison.

<< Note that a document was provided to all Partners by the next speaker. Key points are summarized below. A copy of the document is available from the facilitator. >>

19. Request that the IBMP define “wild” as used in its objectives statement with recognition/contention that there is a continuum from totally wild to semi-wild to semi-domestic to totally domestic.
20. Statement that the benchmark of wildness is a preponderance of natural selection that determines genotypes of future generations and that any weakening of the effectiveness of natural selection—against genetic drift and/or artificial selection—constitutes impairment of wildness.
21. Statement that the Park Service has a mission to leave bison unimpaired for future generations of Americans. A key question thus posed: Which option minimizes impairment to wildness of bison: (1) Allowing natural processes and co-evolution of *Brucella* and bison to proceed toward host resistance and interspecies accommodation; or (2) continuing numerous IBMP activities (capture, handling, vaccination, slaughter, disruption of social units, etc.) that intensify genetic drift and intervene with natural selection?
22. Based on this input and background, a request is made to the “...Partners, and especially the Park Service, [to] define the word “wild” as used in the IBMP objectives and conduct an analysis of how IBMP activities impact wildness in the future of Yellowstone bison.”
23. Statement that the North Side tour and the Chico Hot Springs Partners meeting showed that there were more heads looking outside of the “IBMP box” than ever before.
24. Statement of thanks for the public participation in the field tour, yet still much frustration to be back to the 3 minute public comment period without feedback from the Partners now in the IBMP Partner meeting.
25. \*\* Statement that it seems ridiculous and a waste that this entire meeting is based on only 1 livestock owner having 18 cows and a 60 acre, highly visible lease near the highway; further that that



livestock owner is ready to make things work for bison. Given this situation, at a minimum why not hire someone to sit with these cattle 24/7/365 to protect them from brucellosis transmission?  
Statement that it would be cheaper than what we are doing now.

26. Statement that the RTR deal has boxed in the Partners.
27. \*\* Statement that 15-20,000 acres on the east side of the Yellowstone are conflict free and ready to serve as habitat for bison every year for a minimum of 6 months.
28. \*\* Statement that as described by Bill Hoppe bison can be taught to start using other pathways for migration—why not teach them where we want them to go?
29. Recommendation that YNP remove the Stevens Creek facility and force the State of MT to build its own.

facilitator's draft