

# Summary Report from Interagency Bison Management Plan (IBMP) Meeting August 4/5, 2011

Presented 12 August 2011 by meeting facilitator Scott Bischke,  
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The following summary report reflects activities at the August 4<sup>th</sup> and 5<sup>th</sup>, 2011 meeting of the IBMP Partners, held in Pablo, MT and hosted by the Confederated Salish and Kootenai Tribes. This report comes from the notes and flip chart records of facilitator Scott Bischke. The report contains a *Facilitator's Draft* watermark indicating 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. The nine Partner attendees were Brooklyn Baptiste (NP), Mary Erickson (GNF), Pat Flowers (MFWP), Christian Mackay (MBOL), Brian McCluskey (APHIS), Tom McDonald (CSKT), and Earvin Carlson (ITBC), Dan Wenk (YNP), and Marty Zaluski (MDOL). In addition to those at the deliberative table, ~15 staff members from across IBMP organizations and ~10 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
- BFC—Buffalo Field Campaign
- BM—Brian McCluskey
- CM—Christian Mackay
- CSKT—Confederated Salish Kootenai Tribes
- CWG—Citizens’ Working Group
- DW—Dan Wenk
- EC—Earvin Carlson
- GAO—Government Accountability Office
- GNF—Gallatin National Forest
- GWA—Gallatin Wildlife Association
- GYA—Greater Yellowstone Area
- ITBC— InterTribal Buffalo Council
- JS—Jim Stone
- KL—Keith Lawrence
- MBOL—Montana Board of Livestock
- MD—Marna Daley
- MDOL—Montana Department of Livestock
- ME—Mary Erickson
- MEPA—Montana Environmental Policy Act
- MFWP—Montana Fish Wildlife and Parks
- MK—Michael Keator
- ML—Mike Lopez
- MOU—Memorandum of Understanding
- MR—Majel Russell
- MSGS—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—Rob Tierney
- RTR—Royal Teton Ranch
- RW—Rick Wallen
- SB—Scott Bischke
- SEIS—Supplemental EIS
- SK—Salish Kootenai
- SS— Sam Sheppard
- TM—Tom McDonald
- YELL—Yellowstone National Park
- YNP—Yellowstone National Park

## Action items identified

| # | Who  | What  | By when               |
|---|--|---|-----------------------|
| 1 | ME   | Send thank you notes to CSKT staff and USFWS on behalf of the Partners  | Within 2 weeks        |
| 2 | TM   | Find out about the original cost and maintenance cost for fencing (a) along the highway projects and (b) at NBR   | For next IBMP meeting |
| 3 | Brian M (lead)<br>with Mike L,<br>Tom M, Jim S,<br>Pat F | Brian will lead the Operating Procedures group and come to the next meeting with a presentation on options that were discussed, potentially leading to a draft version of <i>Partner</i> Operating Procedures.<br><br>Notes and directions for this effort can be found in this report under section titled “Process, Procedure, and Next Steps for Adaptive Management”. Also, | For next IBMP meeting |

(a) note that a review of IBMP notes since 2008 that pulls out past discussions of Partner process and decision making is complete and available from the facilitator; (b) note that one member of the public during public comment period called out several questions relative to meeting process—see May 17 public comments #s 18-24; (c) Mike L mentioned using the Clearwater Basin Collaborative Operating Protocols and Agreements as a good working reference (see [www.clearwaterbasincollaborative.org/?page\\_id=156](http://www.clearwaterbasincollaborative.org/?page_id=156)). Further discussion of and Partner thoughts on this item can be found in the notes for the May 2010 meeting at IBMP.info.

The Partners also asked this group to look at the strawman process for accepting adaptive management changes (see that section in these notes) to further refine/revamp those mechanics.

|    |   |   |                                |
|----|---|---|--------------------------------|
| 4  | PJ  | PJ agreed to resend to Partners (already sent once) the YNP/ITBC document describing a possible method of transfer of bison to tribes. The document includes issues of operations, funding, social, and political concerns.   | Aug 15                         |
| 5  | All Partners                                | Provide feedback to PJ on the document from action item 4, particularly focusing on the operational quarantine aspects.   | Sep 1                          |
| 6  | AM Subcommittee leads                       | Subcommittee leads should meet and create a recommended, prioritized adaptive management action plan for the 2011/12 Winter season.   | For phone call on Sep 21       |
| 7  | SB  | The web page presentation and analysis were accepted by the Partners as the correct process, with the facilitator tasked with completing the updates and improved representation on the web.  | ASAP                           |
| 8  | SB  | Update the May 19, 2011 sufficiency analysis to reflect the small changes made (this document will then be posted at IBMP.info).  | ASAP                           |
| 9  | SB  | add the now agreed upon changes into the 2008 Adaptive Management Plan. That Plan will now be called the 2010 Adaptive Management Plan and will be signed off by all Partners at the Nov 30, 2011 IBMP Partner meeting. At that time, the document will be posted to IBMP.info, as described in the previous section of this report | ASAP                           |
| 10 | Mary E                                      | Follow up with Park County Commissioner Malone regarding past Partner responses to his questions. In public testimony (May 2011), Commissioner Malone had stated that he did not believe questions of his from past IBMP meetings had been properly addressed by the Partners.  | Before next IBMP meeting       |
| 11 | Mary E                                      | Mary to return the original RTR agreement, already with Partner signatures, to MFWP. GNF will not sign.   | ASAP                           |
| 12 | CWG   | Provide the Partners a preliminary (e.g., draft report) look at the CWG recommendations prior to the Nov30 meeting, so that they can arrive at the presentation more informed and ready to engage in discussion. The CWG can send to Scott for send out to the Partners mailing list.   | Nov 15 or as soon as available |
| 13 | Mary E;<br>All Partners, subcommittee leads | <i>Subcommittee telecon:</i> To be convened by GNF on Sep21, from 10 AM to 12 noon. Major topic to be a presentation of a prioritized list of subcommittee adaptive management recommendations.   | Sep21, from 10 AM to 12 noon   |

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## Thursday Aug 4<sup>th</sup> Field Trip

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Fifty-six people gathered at the auditorium on the campus of Salish Kootenai College for the start of the field trip to see both CSKT wildlife crossings and to review bison handling practices at the National Bison Refuge.

Tony Incashola offered an opening prayer in his native tongue, then provided a number of comments to the assembled group, including these (paraphrased here by the facilitator):

- The bison issue is only controversial if we make it so. We all want what is best for our people, and most of all what is best for the bison. I am glad this group is coming together to protect bison.
- As the buffalo went so almost went our people. Any time part of a culture is destroyed, part of the person is destroyed.
- We all have individual wants and needs but we have to talk about our children, about the 7th generation down the road. Those generations are what is important—that's why we are here today. Our ancestors had this kind of mindset for us, now it is our chance to do the same for future generations. We must think about the future. It is not about what I want or you want, it is about our children and their children.

Tony's presentation was supported by inspiring, beautiful, and sometimes haunting—including the *Calling Buffalo Song*—from members of Yamncut.



*Left: Tony Incashola provides the opening prayer and reflections before the Aug4 field trip. Members of Yamncut can be seen packing up their drum following performance of several songs.*  
*Right: Bison bull at the National Bison Refuge.*

Thomson Smith closed the field trip introductory materials with a talk titled, “*Q̓weyq̓way* Brief History of the Tribal Relationship with Bison”. The talk, which outlined the extensive and continuing role the bison has played in Salish Kootenai history, culture, and life, is available at [ibmp.info](http://ibmp.info) (as of 9/6/11—awaiting OK from Tony and Thomson).

Following these opening presentations, the IBMP partners, staff, and members of the public climbed into three buses to tour (a) CSKT highway projects designed to minimize wildlife/vehicle interaction, and (b) the National Bison Refuge.

**CSKT wildlife/highway projects:** The group first stopped to review a US Highway 93 wildlife underpass on a tour led by Dale Becker, Stephanie Gillin, and Whisper Camel of the CSKT. A few of the key points made during the tour include:

- CSKT worked with the Montana Department of Transportation and contract engineering firms to develop underpasses, overpasses, and fencing along US Highway 93.
- The CSKT desired to follow this path rather than create a high speed 4-lane highway through the reservation and across critical wildlife movement routes.
- There was some struggle in the EIS development and project scoping, but once the wildlife structures were agreed upon there was an active engagement and shared learning between engineering and wildlife personnel.
- Scoping of these wildlife structures focused on known hotspots of wildlife deaths via vehicle crash. Goals of the Highway 93 projects are twofold: (1) to increase human safety and decrease property damage for people driving, and (2) to save wildlife from crashes and allow them minimally interrupted movement corridors between available habitats.
- Motion detecting cameras are used to record wildlife movement under or across the wildlife structures. Additionally, the structures include a sand base for documenting tracks. Dung pellet counts are also conducted.
- Jump outs are provided to allow animals to get back out of highway zone if they come in from the ends.
- New ideas are being considered, including a focus on the end of fences that push wildlife toward the under or overpasses. These include having the animals trip a sensor that sets off flashing lights to warn drivers, angling fences away from the road so that if animals make it around the fence they are not immediately on the road.

Further information, including planning documents, photos, and video of wildlife using the underpasses, can be found at <http://www.cskt.org/wlc.htm>.



Left: Tour of CSKT wildlife underpass on Hwy 93.

Right: IBMP Partners and the public tour bison handling facilities at the National Bison Range.

**National Bison Refuge:** The group next drove to the National Bison Range (NBR) for a CSKT-provided lunch. Following lunch, Amy Lisk and Dan Sharps of the US Fish & Wildlife Service, who manages the refuge, led a tour of NBR. A few of the key points made during the tour include:

- The bison range is ~30,000 acres in total, of which ~18,000 acres have bison on them.
- The bison are rotated between multiple fenced areas.
- NBR is one of 537 National Wildlife Ranges (NWR) nationwide. The NWR system was established in 1903. NBR was established in 1908 with the first bison arriving in 1909. The purpose of the range initially was the conservation of the species and later (1940s) expanded to include providing a place for the public display of bison.

- A study of bison genetics showed that NBR had the most “unique” genetics of any herd in the NWR system.
- Herd now averages 325-350 animals, with 70-80 calves born this year. The herd was at ~1000 in the 1940s, a number considered too large today.
- USFWS cull the herd (“culling” in this case refers to selling to private owners in a closed bid auction, not killing animals) yearly, trying to maintain a 50/50 sex ratio. They manage for genetic redundancy (i.e., wanting to retain certain characteristics), not diversity.
- Bison are sold each year in the fall. The prices vary with the year; last year big bulls went for \$1500-2000. Payment in lieu of tax are made to the county (ies?) from these revenues.
- PIT tags are used so that when the bison arrive at handling facilities, staff knows where each animal is going to go (new pasture, shipped offsite, etc).
- Staff does reduce elk population on the refuge (shoots them, no hunting season) since the elk have no natural predator on NBR and they compete with bison for forage.
- Entire herd tested for disease each year. BVD and MCF are an issue.
- Neighbors consider the NBR in a positive light. Staff said part of the reason for this feeling is that, “Good fences make for good neighbors.” Staff could only recall once when a bison got out of the fences around NBR.
- Natural mortality rates are about 2-5%, usually calves or elderly bison.

Further information on NBR can be found at <http://www.fws.gov/bisonrange/>.

## **IBMP Meeting Summary Notes from Friday Aug 5<sup>th</sup>**

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*(Meeting held at Confederated Salish and Kootenai Tribes Tribal Council Chambers; Pablo, MT)*

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 additional briefings, maps, presentation slides, and/or documents created for this meeting are posted.

### **WELCOME FROM THE CSKT TRIBAL COUNCIL CHAIRMAN**

CSKT Tribal Chairman E.T. “Bud” Moran provided a welcome to the IBMP Partners, staff, and general public. Chairman Moran said that the tribes are much in line with bison management, and believe that we can meet the twin IBMP goals. He noted that he is aware that the bison issue is a complicated one. He stated that we need to all work together, and that if we can get everyone working together, this group can be successful. Chairman Moran described how the bison are very much a part of CSKT history and culture, both past and present. He said that the tribe is proud of what they do here, that they are an industrial people, and that they have great staff. He concluded with thanks to all for the important work they are undertaking.

### **REVIEW OF AUGUST 4<sup>TH</sup> FIELD TRIP**

The Partners spent a few moments debriefing on what they had seen during the field trip Aug 4. ME offered to send thank you notes to CSKT staff and USFWS on behalf of the Partners (\*\* Action item 1).

Partners wanted to know if the CSKT considered the operations here “typical” of tribal programs for bison. TM responded that operations are likely atypical since each tribe is managing bison for different reasons/goals. Those goals might include conservation of species, economic gains, health benefits from eating bison meat, cultural ceremonies, outsourcing to others, partnering with others (e.g., here with the USFWS), and so on.



Left: Tribal offices for the Confederated Salish and Kootenai Tribes, Pablo, MT.

Right: CSKT Chairman Bud Moran provides opening welcome to members of the IBMP and the public.

An open question was asked: Is knowledge of the apparent efficacy of the fencing used at the NBR something that can be applied to locations in the Yellowstone region? For example, could NBR-style fencing be applied to the highway corridor north of Gardner? Cost was mentioned as problematic, and likely even moreso during these times of tough economy (as an example of high costs, it was noted that a figure of \$120,000 was mentioned for as the cost for one of the underpass projects on US Highway 93). The Partners wondered about the cost of fencing—TM said that he would find out about the original cost and maintenance cost for fencing (a) along the highway projects and (b) at NBR (\*\* **Action item 2**). A mention was made of the opportunity to partner with Montana Department of Transportation to find fencing project funding or possibly matching funding.

Partners noted that they were struck by the apparent full public acceptance of NBR and having a public bison range in the midst of private property.

The Partners recognized that the situation at NBR represents on possible method of bison management within a full spectrum of possibilities. One lesson of the tour, then, was that for YNP we need to find a comfortable place within that spectrum to operate sustainably. It was noted that some goals of the IBMP are not consistent with the NBR side of that spectrum. Regardless, a statement was made that an important goal of the Partners is to become more proactive and less reactive.

## PARTNER OPERATING PROCEDURES

While assigned at the last meeting, this group (ML, TM, JS, PF, and BM) did not meet for the discussion of the development of Partner Operating Procedures. As an example of what the Partner Operating Procedures might include ML provide a list of such items that need to be more formalized:

- How is decision making done?
- How are meeting notes taken and distributed, separate from IBMP meetings (e.g., subcommittee meetings)?
- How are telecons documented?
- Are the public included in telecons and, if so, how?

ME added several other items that would be of use in the operating procedures:

- Role and responsibilities of the lead agency
- Method for agreeing on meeting notes
- One option: Lead agency posts to IBMP.info in draft form before next meeting. Partners review. At start of next meeting, Partners ask for modifications or agree to have report posted as “final”.
  - Website—note that the facilitator will begin to handle postings to website from here forward

- Determine method for timely posting of operations data. The potential was mentioned for facilitator to collect data and post. However, numerous comments were made that the difficulty is not in the collection or repository of the data. Instead, it is difficult for field staff from two agencies to do their work in the field (long hours each day), then get the data out rapidly. In particular, the data needs to be compared, analyzed, and proofed; thus and there is a fundamental conflict between getting data out quickly and getting it out correctly. PJ noted that a key point is that it is important to set the expectation with the public about when accurate data can reasonably be expected. RT added that 2-3 days might be possible, but in reality it is often the end of the week before field staff can meet to proof and analyze the data.

ML noted that the Nez Perce participate in the Clearwater Basin Collaborative which has operating protocols and an MOU that might serve as a template or guide for the Partners in preparing their operating procedures (these documents can be found at [http://www.clearwaterbasincollaborative.org/?page\\_id=156](http://www.clearwaterbasincollaborative.org/?page_id=156)).

BM noted that he also had some ideas on charters and would be willing to lead the Operating Procedures group and come to the next meeting with a presentation on options that were discussed (\*\* **Action item 3**). Further discussion of and Partner thoughts on this item can be found in the notes for the May 2010 meeting at IBMP.info.

## **ADAPTIVE MANAGEMENT SUBCOMMITTEE REPORTS**

### ***Review of sideboards for, and timeline of completion for Adaptive Management***

The subcommittees were created during the Dec2010 IBMP meeting, with further guidance developed during a 7 Feb 2011 Partner teleconference. Since the subcommittees are meeting as part of a year-long effort, the guidance and deliverables schedule is repeated here prior to the subcommittee reports.

### **Adaptive management committee deliverables and timing—guidance for all committees**

- The genesis of these committees came from the Dec2010 IBMP Partner meeting. The four committee areas reflect a lumping of the adaptive management changes that the Partners could not successfully agree on.
- These are not standing committees. Partners' expectation is that the final recommendations from these committees will be complete within one year.
- At the Dec2010 IBMP Partner meeting the Partners completed an exercise to identify concerns, issues, and opportunities within each of the four committee areas. The committees should review the notes from that meeting as a basis for the start of their deliberations (see [www.ibmp.info](http://www.ibmp.info)).
- The committees must work within the bounds of the ROD. If a committee chooses to make suggestions outside those bounds they must clearly identify those suggestions as such and define a process for moving beyond the ROD to accomplish their recommendation.
- Given the close inter-relationship of the four committees, committee leads should coordinate work via the leads talking to each other and exchanging email progress reports on their committee's efforts.
- The approach for each committee will be similar to that the Technical Committee has used in the past: reach consensus on where they can, then lay out and seek to understand where and why there are differences.

**Deliverables for all four committees**

| <b>Overview</b>   | <b>Deliverable</b>   | <b>Timeframe</b>              |            |           |            |   |  |  |  |  |  |  |  |   |
|---|--|-------------------------------|------------|-----------|------------|---|--|--|--|--|--|--|--|---|
| <b>Background assessment</b>  | <ul style="list-style-type: none"> <li>Description of the background of each issue, filling in this matrix: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th></th> <th>social</th> <th>political</th> <th>biological</th> </tr> </thead> <tbody> <tr> <td>key issues, conflicts, and/or barriers to progress</td> <td></td> <td></td> <td></td> </tr> <tr> <td>progress to date since the signing of the ROD in this area</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </li> <li>Committee to propose their objectives, deliverables, and timeframes to Partners for the following 9 months</li> </ul> |                               | social     | political | biological | key issues, conflicts, and/or barriers to progress  |  |  |  | progress to date since the signing of the ROD in this area                                     |  |  |  | Part of scheduled presentation at the May 2011 IBMP Partner meeting |
|   | social   | political                     | biological |           |            |   |  |  |  |  |  |  |  |   |
| key issues, conflicts, and/or barriers to progress  |  |                               |            |           |            |   |  |  |  |  |  |  |  |   |
| progress to date since the signing of the ROD in this area  |  |                               |            |           |            |   |  |  |  |  |  |  |  |   |
| <b>Opportunities assessment</b>   | <ul style="list-style-type: none"> <li>Description of the opportunities for each issue, filling in this matrix: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th></th> <th>social</th> <th>political</th> <th>biological</th> </tr> </thead> <tbody> <tr> <td>Opportunities (broadly scoped) for adaptive change and likely outcomes if these opportunities are exercised</td> <td></td> <td></td> <td></td> </tr> <tr> <td>For each of these opportunities, define the potential impact on or risk to the twin IBMP goals</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </li> </ul>                    |                               | social     | political | biological | Opportunities (broadly scoped) for adaptive change and likely outcomes if these opportunities are exercised |  |  |  | For each of these opportunities, define the potential impact on or risk to the twin IBMP goals |  |  |  | Part of scheduled presentation at the Aug 2011 IBMP Partner meeting |
|   | social   | political                     | biological |           |            |   |  |  |  |  |  |  |  |   |
| Opportunities (broadly scoped) for adaptive change and likely outcomes if these opportunities are exercised |  |                               |            |           |            |   |  |  |  |  |  |  |  |   |
| For each of these opportunities, define the potential impact on or risk to the twin IBMP goals              |  |                               |            |           |            |   |  |  |  |  |  |  |  |   |
| <b>Recommendation and Implementation</b>  | A defined listing of adaptive management actions (with responsible party and completion date assigned) that are agreeable to all parties for implementation during the 2011/12 season.   | Dec 2011 IBMP Partner meeting |            |           |            |   |  |  |  |  |  |  |  |   |

**Reports out by AM subcommittee chairs**

Subcommittee chairs reported on the progress each had made since the May 2011 meeting. Three of the four subcommittee chairs provided a briefing statement to the facilitator. These briefing statements are presented below (*in italics*) and will not be posted separately at IBMP.info.

***Bison restoration to other locations in the country (Karen Loveless)***

*Presented at IBMP meeting August 5, 2011, Polson, MT:  
Summary of IBMP Bison Restoration Subcommittee Conference Call, 25 July 2011  
Participants: Julie Cunningham, Karen Loveless, Arnie Dood, Rick Wallen, Marty Zaluski, Jack Rhyan, Tom McDonald. (Jim Stone was not able to participate)*

*In light of what happened this past winter, there is a pressing need to discuss and plan for whether additional animals will be taken into quarantine and under what circumstances. A decision needs to be made as to whether quarantine is going to be a part of management efforts this coming winter (and into the future). It is the shared opinion of the subcommittee members that this decision can only be framed by the larger question of what is the overall goal of bison restoration.*

All subcommittee members present agreed with recommending that managers consider operational quarantine, with the scale and design of the program dependant on how the larger goal is defined.

Questions identified by subcommittee for discussion by managers:

**1. What is the goal of bison restoration?**

- To preserve genetics?
- To establish additional wild populations?
- To provide animals for public/tribal harvest?

**2. What is the desired scale of bison restoration?**

- Is it limited to the animals currently in the quarantine program?
- Is ongoing operational quarantine desirable?
  - This would potentially provide an ongoing stream of sero-negative bison for restoration/relocation
  - Alternative to slaughter in years of large bison migrations outside the park
- Is there an upper limit on how many animals would be removed from the Yellowstone population for restoration efforts?
- Opportunities for placement of bison are initially limited; are there other opportunities or are all options going to be saturated quickly? This consideration may limit the scope of the quarantine program

**3. Conservation considerations for bison restoration**

- Requires minimum population numbers for maintaining genetic diversity.
  - Small restoration efforts may be of little conservation value
- If bison are considered “wildlife”, this implies ability to move across the landscape to utilize seasonally appropriate ranges, and be exposed to selective pressures.
  - Domestic herds may be of value for conserving genetics, but of little conservation value
- Yellowstone Bison are best genetic stock for restoration efforts, with high value for conservation.

**4. Would an operational quarantine program be part of IBMP, and if so what roles will each agency play?**

- Tribes have presented proposals for operating bison quarantine, and have discussed possibility of obtaining land in the Gardiner Basin
- APHIS has expressed that it does not want to be a part of ongoing operational quarantine
- FWP position?
- USFS position?

**5. What is IBMP’s role in determining where animals may end up and for what purposes?**

- Public ownership, tribal ownership, private ownership?
- Should post-quarantine bison be managed as wildlife, as domestic herds, as livestock?
  - In each possible scenario, who would pay for and operate quarantine program?
- We do not have placement options for animals currently coming out of quarantine.
- Placement of bison into private ownership is currently under litigation.

*Suggestion: Identify a gradient of ideal scenarios for relocation of post-quarantine bison, for example:*

1. *Public lands where bison would be managed as wildlife*
  2. *Tribal lands where bison would be managed as wildlife*
  3. *Combination of private/public lands with public access*
  4. *Private lands?*
  5. *Managed as non-wildlife?*
- *Within this gradient, identify threshold of what is acceptable fate for post-quarantined bison, consistent with the overall goal of the bison quarantine/restoration program*
  - *In each scenario of where bison could end up, who is willing to pay for and operate quarantine operations for that purpose? What outcomes are desirable? What outcomes are acceptable?*
  - *If our most desirable options for placement are not available, are we willing to place bison in less desirable situations? (eg private enterprise?)*
- 6. *If operational quarantine is desired, where would animals be quarantined?***
- *No operational facility currently available.*
  - *Corwin Springs was intended as a test facility, not ongoing operational facility*
  - *Tribes have expressed interest, but no facilities yet available*
  - *Quarantine facility on West Yellowstone side?*
  - *Will it be possible to transport bison to outlying areas for quarantine?*

*Suggestion: Establish temporary holding facility in Gardiner or West Yellowstone area to be used for several months in order to do sufficient testing and weed out sero-positives, then ship to long-term quarantine facility outside of immediate YNP area.*

- 7. *How would an operational quarantine facility operate?***
- *Quarantine program originally designed as feasibility study*
    - *Preliminary results are promising, however post-quarantine surveillance period is not complete*
  - *Would the standards and constraints of operational quarantine be consistent with APHIS protocol?*
    - *Time period required for quarantine may be less than current standards*
    - *Feasibility of bringing in additional animals, testing on site etc?*
  - *Who would make these decisions, and who would oversee operation?*
    - *IBMP, or entity operating facility?*

## **PARTNER DISCUSSION**

The Partners had many questions regarding Karen's presentation, most centered around the issue of operational quarantine. For example, what is the legal definition in Montana for post-quarantine sero-negative bison released in Montana and whose jurisdiction do they become? Both PF and CM said that nothing in the law changes the status of bison post-quarantine. PF stated that question #1 is **where** do the bison go after quarantine? We need to be very specific with the answer here. MFWP is expecting to undertake an assessment of where bison can go after quarantine.

EC stated that tribes at Fort Peck and Fort Belknap are ready to take bison. Also, he mentioned that to the tribes bison are always considered wildlife.

Partners stated that it was not too early to figure out operational quarantine—recalling that the process as under current consideration would be:

**bison from YNP → quarantine → operational quarantine → final bison placement location**

—as when some bison are still undergoing their 5-year quarantine, others who have already undergone that process could also be simultaneously undergoing operational quarantine.

Responding to a question of whether there is a defined, agreed upon time for operational quarantine, BM stated that first we need to complete an operational quarantine feasibility study and therein develop a protocol for operational quarantine. His expectation is that likely the protocol will not be as long as that being considered for the first cohorts of quarantined bison. However, BM noted that the length of operational quarantine will likely be driven by the risk that the receiving group is willing to accept.

With respect to quarantined bison being moved to tribal entities (one of several options), PF asked who develops the plan, location, and provides funding for the transfer. PJ and JS had created a joint YNP/ITBC plan for such transfer that offers at least one look at the possible process. PJ agreed to resend (already sent once) this document out to Partners (**\*\*Action item 4**). The Partners, in turn, agreed to provide feedback to PJ on the document, particularly focusing on the operational quarantine aspects (**\*\*Action item 5**). The Partners recognized that while all of the operational quarantine questions raised in Karen's presentation are not answered in the YNP/ITBC document, it is nonetheless a good place to start.

Karen requested guidance for next subcommittee steps from the Partners for the subcommittee. Did, for example, the Partners want the subcommittee to work on a briefing paper that would more comprehensively describe what operational quarantine looks like? Partners responded that indeed operational quarantine is a fundamental question to all four subcommittees—do we have a pathway to solve this issue by winter so that it provides an adaptive management option next winter?

ME asked if there was as much of a level of urgency as she thought around this issue. PJ responded that there are ~2400 bison in the northern herd this year and that yes, therefore there is a big level of urgency for operational quarantine (i.e., to provide at least one more tool help avoid slaughter of some small number of bison coming out of the Park next winter).

In summary of the operational quarantine discussion, the Partners agreed that the following statement captured their thoughts: *The Partners support operational quarantine conditional on the decision of location; that location must be publically vetted before the animals are transported away from quarantine facilities.*

**Increasing habitat (Mary Erickson, Rick Wallen)**

This subcommittee had no new report for the meeting, though Partners noted that they had been far along in their discussions at the May IBMP meeting.

**Prevalence reduction (Rick Wallen; highlights shown are as presented by Rick)**

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*Briefing Statement – Deliberative Document Summarizing Committee Discussions*

*Interagency Bison Management Plan Technical Committee*

*Topic: Brucellosis Sero prevalence Reduction*

*Date: Ongoing (progress as of 4 August 2011)*

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Definitions

*Herd immunity - a form of community level protection from infection that occurs when the vaccination of a significant portion of a population (or herd) provides a measure of protection for individuals who have not developed immunity. Herd immunity theory proposes that, in contagious diseases that are transmitted from individual to individual, chains of infection are likely to be disrupted when large numbers of a population are immune or less susceptible to the disease. The greater the proportion of individuals who are resistant to brucellosis, the lower the probability that a susceptible individual will come into contact with an infectious individual.*

*Susceptible bison* – individuals that have not been exposed to *B. abortus* (i.e., non vaccinated seronegative individuals)  
*Exposed bison* – individuals that have been exposed to *B. abortus* (i.e., seropositive)  
*Infected bison* – seropositive individuals likely to be actively infected with *B. abortus* based on specific criteria (age & antibody levels)  
*Infectious bison* - Seropositive, female, pregnant individuals with a high probability of shedding *B. abortus* based on specific criteria (age & antibody levels)  
*Non-Infectious (Recovered) bison* – Seropositive female bison, 5+ years old, with low antibody levels on sensitive, quantitative serologic tests (e.g., FPA) that have a low probability of active infection based on specific criteria (age & antibody levels)

### Background

The persistence of brucellosis infection in wild bison is driven by females becoming infected and subsequently shedding bacteria during parturition events or through infecting their offspring while nursing young calves (Cheville et al. 1998). Herd immunity accumulates through both exposure to the disease and through vaccination.

The managers conveyed that brucellosis infection underlies the entire conflict, it cannot be set aside, and the conflict remains intractable unless and until brucellosis prevalence is decreased. The negotiated settlement in 2000 between state and federal agencies was resolved by the state agreeing to provide greater tolerance for bison outside the park if the park would implement a vaccination program to reduce the brucellosis prevalence in Yellowstone bison. The agencies have partially implemented their agreed to actions and yet the brucellosis prevalence has not declined as expected. The purpose of the technical committee is to define why brucellosis seroprevalence has not declined and develop adaptive management adjustments that should result in a reduction in brucellosis prevalence.

### Assessment

The Interagency Bison Management Plan predicted a decline in seroprevalence (50% to 25%) at 10 years post implementation. We now believe seroprevalence is unlikely to change by implementing current management strategies (Culling all individuals that exit the park, testing and removing all seropositive bison, and periodically rather than routinely vaccinating calves and yearlings) (White et al. 2010). Culling of non-infectious seropositive individuals increases the population's susceptibility to infection when bacteria are shed and subsequently encountered by naïve individuals. Thus, management actions will need to be adjusted (changed) in order to expect a reduction in brucellosis prevalence in Yellowstone bison.

### Recommendation for reducing brucellosis seroprevalence in Yellowstone bison

Efforts should focus on removing bison with a high probability of active infection (infectious sero-positive females) while simultaneously increasing herd immunity (protecting non-infectious seropositive females and increasing the number of vaccinates in the population).

### Issues

Management actions that minimize the risk of brucellosis transmission from Yellowstone bison to domestic livestock at the perimeter of the bison conservation area are highly controversial because they are more labor intensive, time consuming and expensive than actions to manage other wildlife. Some perspectives argue that if the prevalence of brucellosis in bison were reduced (some request elimination), then the management practices currently being implemented could be relaxed or abandoned.

The risk of brucellosis transmission to cattle is currently low because 1) management actions minimize commingling of female bison with domestic livestock between mid-February and mid-June when the probability of shedding bacteria is greatest, 2) very few parturition events occur from mid-June to mid-February (1-2 %), and 3) Males shed little bacteria and do not provide a target of curiosity for other bison to investigate the bacteria that are shed.

*There are competing perspectives regarding how to conduct field operations to reduce brucellosis in Yellowstone bison. Some contend that because the risk of transmission is low then reduction of brucellosis infection is unnecessary. This technical committee agrees that increasing herd immunity is a key feature necessary to successfully reduce brucellosis prevalence in the bison population. To reduce seroprevalence more effectively, bison will need to be tested/handled more consistently than we have during the first 10 years of operations, ideally annual capture and or handling of bison at both boundaries would be important to make progress at reducing brucellosis prevalence.*

*The specific issues pertinent to field operations revolve around the following questions.*

- 1. Can potentially infectious bison (i.e., high probability of shedding *B. abortus*) be identified?*
- 2. What criteria is used for selectively culling infectious bison?*
- 3. How will a testing program be developed? Where will testing take place?*
- 4. Where will tested/vaccinated, seropositive and seronegative bison be allowed to go after testing?*
- 5. How will the effectiveness of raising overall herd immunity be evaluated?*
- 6. Is it worthwhile to vaccinate seropositive bison?*
- 7. Can bison recover from the infection and exhibit immunity to future exposure?*
- 8. Can we change agency culture to conduct collaborative actions that will reduce brucellosis infection?*

#### *Barriers/Challenges to overcome*

- 1) Agencies all have different levels of motivation to reduce brucellosis infection in Yellowstone bison stemming from their mistrust of the perceived or real intentions of others.
  - 1. The agencies are not consistently vaccinating bison that migrate to boundary areas. West side vaccinates 5 North side vaccinates 286**
- 2) The agencies do not work collaboratively to reduce prevalence in the bison population.*
- 3) Culling a high proportion of the population can affect demographic and genetic characteristics of the population.*
- 4) A decision to implement a vaccination program on a larger scale is tied to progress in the other workgroups.*
- 5) The ideal time period to vaccinate bison is during the fall when they are in their best body condition and well in advance of late pregnancy. Some note that vaccinating bison in late pregnancy can cause an abortagenic response to vaccine. However, ...
  - a. Bison migrate to boundary ranges where the agencies have capture facilities at a time when vaccinating adult females is less than ideal.*
  - b. Hunting occurs when vaccination implementation could be most effective. Vaccinates need a 3 week clearance time following vaccine delivery.**

#### *Potential methods for field operations to effect a reduction in brucellosis prevalence*

*A population wide vaccination program that includes remote delivery methods requires systematic implementation to track what actions are effective at meeting objectives. The first step is to be consistent in implementing operations.*

- 1) Be more aggressive at capture, test and vaccinate at both boundary areas*
- 2) When testing is logistically not feasible, vaccinate young females regardless of disease status.*
- 3) Consign infectious bison to research or slaughter*
- 4) Preferentially remove bison most likely to shed infective doses of bacteria. Seropositive bison are likely to be non-infectious based on age (> 4 years old) and serostatus (low titered on FPA)*

- 5) *Systematically implement a remote vaccination program to complement boundary vaccination efforts*
  - 6) *Coalesce these recommendations with those from the other technical committees to provide for conservation of the population, operational efficiency in reducing brucellosis prevalence, humane treatment of bison, and a public trust resolution to the social conflict that the managers face.*
  - 7) *Balance goals of a remote vaccination program with use of hunting as a tool to manage population abundance.*
  - 8) *Provide operational quarantine facilities to clear disease free bison and to contain non-infectious bison that must be removed from the population.*
- *1, 2, 4 & 5 work to accumulate greater herd immunity*
  - *3 reduces vulnerability for naïve individuals*
  - *1 & 8 provide opportunities to monitor program effectiveness*

*Vaccination may not produce an immediate reduction in population level seroprevalence. That will occur as a consequence of older seropositive bison dying of old age and the removal of the infectious seropositive females.*

#### Progress to Date

- 1) *Evidence exists to show brucellosis vaccinates can better resist infection and subsequent shedding of bacteria than non-vaccinates when exposed to an infectious event. Numerous studies conducted by Steven Olsen, Agriculture Research Service (Latest results shown in Appendix A)*
- 2) *An EIS for an in park remote vaccination program has been drafted and vetted in public review. Content of public comment has been completed and an FEIS could be available for internal agency review in 2012.*
- 3) *Encapsulation of vaccine into a delivery vessel has been initially tested (Christie et al. 2006, Olsen et al. 2006), a replication of this method has been attempted in 2008 (Olsen pers comm. ) and a production protocol has been drafted to resolve early problems encountered by Olsen (Grainger 2011). The protocol is ready for additional testing.*
- 4) *A study of lymph system tissues shows that we can identify a high proportion of the seropositive individuals with culture positive lymph system tissues (Treanor et al. 2011).*

#### Opportunities

- 1) *We have capture facilities at both boundaries and annual opportunities to hand vaccinate bison. (Albeit the proportion of the population changes from year to year due to the influence of weather in driving bison to boundary ranges)*
- 2) *We have opportunities to learn about how bison react to remote delivery vaccination outside the park as an initial test of the feasibility in implementing remote delivery. This was identified as a way to gain knowledge of impacts caused by remote vaccination and to phase in remote vaccination (described in the FEIS p 191).*

*Note: Dr. Z concerned that any attempt to implement remote vaccination outside the park would lead to a suggestion to avoid remote vaccination or prevent a more aggressive disease reduction effort inside the park.*

#### Alternative Overarching Strategies to include in Field Operations Plan

- 1) *Grow population up to 4500 bison and test and remove the 50% that test seropositive for brucellosis*
- 2) *Immuno-contraception has been implemented in several species, and has shown some promise with bison. This technology, has numerous potential advantages including: 1) breaking the transmission cycle of brucellosis, 2) reducing the growth rate of the infected*

population during the disease reduction process, 3) reducing the number of bison shipped to packing plants.

- 3) *Combine selective culling of likely infectious seropositive females with a more aggressive vaccination program . When opportunities present themselves, vaccinate at both boundaries (seronegative calf and yearling females) and older females if they are not pregnant. Mark all animals that are released to uniquely identify individuals for learning about incidence rate. Test and remove, to slaughter facilities, infectious seropositive bison only (all young, less than 4 permanent incisors, seropositive females and all full mouth females with high FPA titers). Return older seropositive females with low FPA titer to population or consign to terminal quarantine. Monitor seroconversion rate in young males and females to track effectiveness of brucellosis reduction program.*

*With the exception of remote delivery techniques, prevalence reduction strategies will rely on actively handling bison. Additionally, activities may need to be implemented jointly to achieve the greatest benefit.*

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Appendix A— Information shared by Steve Olsen from manuscript in review.

*Efficacy of Brucella abortus strain RB51 vaccination strategies in protecting against experimental challenge at midgestation with 10<sup>7</sup> colony-forming units of B. abortus strain 2308.*

| <i>Rate of Abortion or Infection Following Vaccination with RB51 (Number aborted or infected/Total)</i> |                  |                          |                          |                        |  |
|---|------------------|--------------------------|--------------------------|------------------------|--|
| <i>Delivery Method</i>  | <i>Abortion</i>  | <i>Uterine Infection</i> | <i>Mammary Infection</i> | <i>Fetal Infection</i> | <i>Infection in remaining maternal tissues</i> |
| <i>Hand</i>   | <i>50% (3/6)</i> | <i>66% (4/6)</i>         | <i>83% (5/6)</i>         | <i>100% (6/6)</i>      | <i>83% (5/6)</i>                               |
| <i>Dart</i>   | <i>57% (4/7)</i> | <i>57% (4/7)</i>         | <i>100% (6/6)</i>        | <i>100% (6/6)</i>      | <i>94% (6/7)</i>                               |
| <i>Booster</i>  | <i>0% (0/5)</i>  | <i>40% (2/5)</i>         | <i>60% (3/5)</i>         | <i>100% (6/6)</i>      | <i>20% (1/5)</i>                               |
| <i>Control</i>  | <i>83% (5/6)</i> | <i>100% (6/6)</i>        | <i>100% (6/6)</i>        | <i>100% (6/6)</i>      | <i>100% (6/6)</i>                              |

*Conclusion from Olsen studies: Vaccination can be effective in preventing abortion due to brucellosis infection and thus reducing the rate of disease transmission among individuals of the population. Olsen and Holland (2003) reported that booster vaccinating bison that were initially vaccinated as calves would provide added protection for individuals that encounter B. abortus bacteria and be a beneficial management tool for reducing brucellosis in Yellowstone bison.*

Appendix B—The specific issues pertinent to field operations revolve around the following questions.

- 1) *Can potentially infectious bison (i.e., high probability of shedding B. abortus) be identified?*

- *Yes. Bison with a high probability of being infectious (i.e. actively infected*

animals) can be identified based on their age and antibody levels measured using the standard, trypsin diagnostic test (Fluorescent polarization Assay, FPA).

- *Brucellosis exposure and subsequent infection is most characteristic of young animals (bison < 5 years of age)*

2) *What criteria are used for selectively culling infectious bison?*

- *Selective culling of infectious bison can be an effective brucellosis reduction tool when integrated into a vaccination program*
- *By itself, selective culling of young bison (< 5 years) is unlikely to substantially reduce brucellosis prevalence over the long-term without large scale culling, as young bison comprise a large proportion of the Yellowstone population with high rates of infection*
- *In the short term, culling bison that are likely to be actively infected (i.e. seropositive females with net FPA > 150 mP) could help reduce brucellosis prevalence until herd immunity is built up through vaccination (measured as a reduction of seroprevalence in young bison, < 5 years old)*

3) *How will a testing/vaccination program be developed? Where will testing take place?*

- *Testing will take place at capture facilities located in both boundary management areas.*
- *Additionally, monitoring radio transmitted bison will allow for tracking infection and vaccination status over the lifetime of individuals*
- *Monitoring individuals in pen studies under controlled will help identify the effectiveness and limitations of vaccination.*

4) *Where will tested/vaccinated, seropositive and seronegative bison be allowed to go after testing?*

- *Seronegative bison would be either released or consigned to quarantine procedures.*
- *Seropositive non-infectious bison would be released or consigned to a terminal quarantine facility.*
- *Seropositive infectious bison would be consigned to slaughter or a terminal quarantine facility for further research.*

5) *How will the effectiveness of raising herd immunity be evaluated?*

- *Herd immunity is increased through vaccination and/or maintaining bison that have developed resistance by experiencing the natural course of infection*
- *An increase in herd immunity is expected to result in reduced transmission*
- *Thus, the measurable effects of increased herd immunity might be:*
  1. *Reduced seroprevalence in young bison (< 3 years old)*
  2. *Reduced seroconversion rates in marked bison handled at capture facilities or during field immobilizations*
  3. *A reduction of infectious female bison removed through selective culling*
  4. *An increase in measurable protective immune responses (indicators of CMI) through vaccination*

6) *Is it worthwhile to vaccinate seropositive bison?*

- *Yes. SRB51 is a live vaccine so additional exposure to the pathogen extends immunological memory, which allows for faster and more specific responses when re-exposed to the field strain.*

7) Can bison recover from the infection and exhibit immunity to future exposure?

- Traditionally, recovered bison have been defined as those individuals that have cleared all bacteria from their tissues. Since we can never be 100% certain that a live, seropositive animal is truly recovered, this is an unproductive definition. Brucellosis in Yellowstone bison is an endemic disease (i.e. a proportion of the population is continually infected), with infection occurring early in life. What slows down the spread of the disease is acquired resistance in bison that have experienced the natural course of infection. These older animals (generally 5+ years old) are recovered in the sense that they do not significantly contribute to transmission (i.e. they are not the bison maintaining infection in the overall population).
- If recovery from the disease is to not exhibit an infection in which an individual sheds an infective dose of bacteria and thus not be a transmission vector then recovery is possible when individuals are infected with brucellosis. The active infection period lasts for about two years in most bison. However, some will exhibit active infection for longer time periods for a variety of reasons. It is acknowledged that a recovered individual exposed to a high dose of bacteria can become reinfected and may recrudesce under some circumstances.

8) Can we change agency culture to conduct collaborative actions that will reduce brucellosis infection?

- This can be done if all partners can agree to a proactive approach to disease reduction in which each partner works within their jurisdiction to contribute actions that collectively contribute to reducing brucellosis infection in Yellowstone bison.

|   |  |  |  |
|---|--|--|--|
| <b>Opportunities for adaptive changes</b>   | Change the focus of removals to be likely infectious seropositive female bison   | Vaccinate bison more aggressively at both management areas   | Change agency culture to be more collaborative   |
| <b>Likely outcomes</b>  | Real reduction in probability of bison shedding <i>B. abortus</i> bacteria   | Increase in herd immunity  | A more rapid and efficient reduction in brucellosis seroprevalence among Yellowstone bison   |
| <b>Social, Political and Biological Impacts to risk of ...</b><br><br><b>1) bison conservation</b><br><b>2) brucellosis transmission to livestock</b> | Increased herd immunity to brucellosis<br><br>Reduced probability of brucellosis transmission from bison to nearby livestock<br><br>Reduction in the number of bison that need to be consigned to slaughter<br><br>Reduced need to haze bison for brucellosis infection prevention | Reduction in transmission of brucellosis among bison<br><br>Reduced probability of brucellosis transmission from bison to nearby livestock | Greater tolerance for bison on ranges outside the National Park ???<br><br>A significant decline in brucellosis infection in Yellowstone bison |

Note that in discussing this last table, Rick highlighted a couple of items. He said that the key to reduction in brucellosis prevalence is to get to a high level of immunity quickly. By implementing all three actions shown in the table, the subcommittee believes that the Partners would see reduced prevalence in young animals (will require mark and testing to verify). The subcommittee recommends that the focus be on

pre-reproductive females for vaccination, while removing reproductively active, likely infectious females aged 2¾ to 5 years old may be effective at reducing disease transmission. Rick further noted that the subcommittee had broad consensus on testing younger animals—wanting to preferentially remove the most likely transmitters of disease—but not as clear on older animals.

RW noted that a conundrum associated with vaccination is that the animals are in the best condition in the fall, making that the best time for them to face the stress of vaccination. At the same time, hunting commences in the fall and we don't want hunters to harvest animals that have been newly vaccinated.

A question arose regarding location of vaccinations: do we plan to vaccinate on the West Side of YNP as well as the North Side and, if so, would it be possible next year? MZ responded no, no plans as of today, but MDOL is very open to the idea of doing so. He noted that doing vaccinations on the West Side are a bit more complicated due to the location of the capture facilities. For next season, MDOL responded that it could be possible but there are issue including that only a narrow two week window before spring calving exists.

A further thought was presented that since we already have greater tolerance on the West Side, moving to vaccination might be considered a step backwards. A counter thought was presented that the Partners can't afford to set aside any options. A statement was then made that if the Partners chose to use vaccination on the West Side, they need to have a clear expectation via modeling of how fast sero-prevalence would be expected to decrease. RW noted that the ROD contained two models but that the requested modeling exercise would be difficult.

RC stated that there are two methods of vaccination under discussion: remotely whether inside or outside of YNP, and by hand using potentially all facilities and where the primary purpose of capture is for vaccination. Further, that by increasing the vaccination of even sero-positive animals, we can increase the efficacy of vaccination overall.

MDOL stated a willingness to carry out vaccinations on the West Side in the upcoming season. Those vaccinations to include all females (and in fact at potentially all animals could be vaccinated). NPS and MDOL took on a shared action through this subcommittee to come to the next meeting with a plan for vaccination on the North Side; included in this action was the need for the proposal to include vaccination timing and age or sex targeted, given interplay with hunting season concerns (This action item was dropped post-meeting based on this note from PJ—"The NPS already plans to vaccinate every eligible bison that is captured in the north boundary area, preferably after the hunting seasons end in mid-February. We are still working on a FEIS to decide whether to implement remote vaccination of bison within the park. Thus, no remote vaccination will occur this winter.")

**Population modulation & resources vs. population (PJ White)**

PJ made his presentation using the table provided below.

| <i>Management action</i>         | <i>Success in limiting bison numbers</i>         | <i>Cost</i>           | <i>Public acceptance</i>         | <i>Level of compliance</i>      |
|----------------------------------|--|-----------------------|----------------------------------|---------------------------------|
| <i>Selective culling</i>         | <i>Depends on migration</i>                      | <i>High</i>           | <i>Low</i>                       | <i>Evaluated in FEIS</i>        |
| <i>Public/treaty harvests</i>    | <i>&lt;200 harvested per season</i>              | <i>Low</i>            | <i>High</i>                      | <i>Public harvests; in FEIS</i> |
| <i>Transfer bison (Tribes)</i>   | <i>Little long-term effect</i>                   | <i>High initially</i> | <i>Variable: some resistance</i> | <i>USDI authority; NEPA?</i>    |
| <i>Transfer bison (Research)</i> | <i>Little effect – few facilities</i>            | <i>Low</i>            | <i>Better than slaughter</i>     | <i>Evaluated in FEIS</i>        |
| <i>Contraception</i>             | <i>If broadly done; combine with vaccination</i> | <i>High to low</i>    | <i>Better than slaughter</i>     | <i>Need NEPA</i>                |

PJ noted that under current conditions it is tough to get 100% away from culling/slaughter operations as a method of population control. He said that he expected that up to 300 animals might need to

be culled from the Northern herd this winter, and possibly some males in the Central herd. He noted that he is currently doing a study on age and sex of the breeding herd with a goal of determining how many need to be culled to maintain some pre-determined goal population level. The NPS is working on a plan for managing bison abundance during winter 2012 and that a draft of this plan likely would be delivered to the Superintendent within two weeks. After the Superintendent's review, NPS will work on revising the Operations Plan for winter 2012; they will provide a draft of this revision to the other Partners for their review and comments sometime this fall.

PJ also stated that in reality the Partners needed to recognize that transfer of bison to tribes, once a process is satisfactorily worked out, will not be a long term solution. Instead it will help for perhaps 5-10 years since once YNP bison have been moved outside of the Park, they will eventually propagate and via market or other forces be transferable between and away from tribes without any further involvement of YNP or the Partners. In considering whether transferring bison will require NEPA, PJ stated that possibility will depend on the level of controversy.

With respect to contraception and sterilization, modeling by USGS (M. Ebinger, et al) suggests that a significant portion of the population would need to be contraceptive to have an impact on population growth. However, the modeling suggests that contraceptive as few as 50 to 100 individuals per year (2.5-5% of the female population) could have significant effect on disease prevalence.

Following this discussion, BM reiterated a point made in previous meetings: the goal of APHIS is prevalence reduction, not population modulation.

### **Summary request from Partners**

Following the subcommittee reports, the Partners provided the following requests: Subcommittee leads should meet and create a recommended, prioritized adaptive management action plan for the 2011/12 winter season (\*\*Action item 6).



*Left: IBMP Partners meeting at the tribal offices of the Confederated Salish and Kootenai Tribes in Pablo, MT.*

*Right: Part of the WWII Memorial to CSKT servicemen just outside CSKT tribal offices.*

## **ADAPTIVE MANAGEMENT COLLECTED HISTORY AND REPRESENTATION**

### **Web posting of AM history**

ME and the facilitator talked about the process of collecting the history of the adaptive management changes made under the IBMP since the 2000 Record of Decision. This work was done with great input from Rick Wallen of NPS. A new webpage has been created that captures this history at [ibmp.info/adaptivemgmt.php](http://ibmp.info/adaptivemgmt.php) (note that while the webpage is live, it does not yet have any links to it from

the website navigation structure pending more upgrades; i.e., it is considered a “work in progress” as of late August).

Key points in developing the IBMP adaptive management history:

- The IBMP has operated under an adaptive management framework since the signing of the IBMP Record of Decision in 2000.
- Adjustments have been made to the framework numerous times, as captured in the documents that follow.
  - 2011: May 2011 Proposed Adaptive Management changes (14 possible changes, to be discussed at Aug 2011 IBMP meeting)
  - 2011: (March-April) [Gardiner Basin Adaptive Management Changes](#) (3)
  - 2008: [December 2008 Adaptive Management Plan](#) (post GAO review)
  - 2006: [IBMP Adaptive Management Changes 2006](#) (shown as changes to the Operating Procedures)
  - 2005: [IBMP 5-year status review](#). The status review document recommends adaptive management adjustments to incorporate hunting as a new tool for managing bison abundance and distribution, but not to go to step 2
  - 2000: [IBMP Record of Decision](#) (adaptive management described under "steps 1,2, and 3")
- The IBMP Partners created a formal adaptive management plan in Dec 2008 **that incorporated changes made since the 2000 ROD (this is the key assumption)**. The Dec2008 Adaptive Management Plan is now considered a living document and captures all changes made since Dec 2008. It will be renamed for each year that AM changes are made.

The web page presentation and analysis were accepted by the Partners as the correct process, with the facilitator tasked with completing the updates and improved representation on the web (**\*\*Action item 7**).

### **PROCESS FOR ADAPTIVE MANAGEMENT CHANGES (PARTNERS)**

The Partners recognize that the process for documenting AM changes has been problematic to follow, both for the Partners and for the public. At this meeting they discussed the following process as a strawman for adopting adaptive management changes in the future:

1. Adaptive management concept is brought forward to Partners (may arrive from many sources, for example from individual Partners, a group of Partners, staff and/or subcommittees charged with suggesting adaptive management changes, and more).
2. Initial discussion will determine if there is a need for NEPA and/or MEPA sufficiency testing.
  - a. If no, go to Step 3.
  - b. If yes that testing will be completed before moving on to Step 3. If the sufficiency testing reveals that NEPA and/or MEPA is not met, such environmental review would be required before moving to Step 3.
3. Partners discuss during a telecon or during a regularly scheduled IBMP meeting.
4. By show of vote, Partners express consensus on the adaptive management change; no signature loop is required. **\*\*The adaptive management change is considered in effect at the close of this consensus discussion.\*\***
5. Meeting notes will record that the adaptive management change has been agreed upon.
6. The working adaptive management plan will be updated and posted on [ibmp.info](#) as soon as possible to reflect the change.

The group looking at Operating Procedures (**\*\*Action item 3**), was additionally asked to further refine the mechanics the strawman process shown above as part of their work.

## **DISCUSSION OF PROPOSED MAY 2011 ADAPTIVE MANAGEMENT ADJUSTMENTS**

Based on an action item from the May meeting, PJ presented a NEPA/MEPA sufficiency document to the Partners via email May 19, 2011. The memorandum evaluates whether adaptive management undertaken since the 2008 AM agreement “represent a significant change in the proposed action relevant to environmental impacts that were disclosed in the Final Environmental Impact Statement (FEIS) and the federal and state Records of Decision for the Interagency Bison Management Plan (IBMP)...”.

Proposed changes are evaluated in three areas: 1) changes to field operating procedures; 2) changes covered by current NEPA; 3) changes not covered by current NEPA.

As documented in past IBMP meeting notes, the changes include three adopted in Mar/Apr 2011 dealing with the North Side bison, and 14 more proposed for this year.

MDOL had several questions about the sufficiency work, which they provided as 21 comments in the original Word document. The Partners stepped through these comments one-by-one, with the facilitator recording whether there needed to be a change in the document or not. The majority of these comments dealt with clarifying explanations or the responsible party for each action. Some of the requested changes or clarifications dealt with the proposed adaptive management changes; some dealt with the language in the sufficiency analysis.

The sufficiency document—wording on the adaptive management changes and sufficiency analysis—was thus agreed to by all parties. The facilitator was instructed to

- (1) update the May 19, 2011 sufficiency analysis to reflect the small changes made (this document will then be posted at IBMP.info; **\*\*Action item 8**).
- (2) Add the now agreed upon changes into the 2008 Adaptive Management Plan. That Plan will now be called the 2010 Adaptive Management Plan and will be signed off by all Partners at the Nov 30, 2011 IBMP Partner meeting (note that this statement is counter to the strawman—i.e., not yet agreed upon—process described in the previous section ). At that time, the document will be posted to IBMP.info, as described in the previous section of this report (**\*\*Action item 9**).

## **PARTNER BRIEFINGS AND UPDATES**

### ***Mary—follow up with Park County Commissioner Malone regarding past Partner responses to his questions***

Mary was unable to connect with Commissioner Malone regarding his questions/concerns, but will try again (**\*\*Action item 10**).

### ***Mary, PJ—status of lawsuit from environmental organizations and others to stop federal agencies from killing bison; also on Alliance for Wild Rockies suit against hazing.***

The lawsuits are proceeding through the courts. No new information to provide.

### ***Brian—Any update on the expected publication of final APHIS rule to revise the current brucellosis program to operate under designated surveillance zones***

APHIS is already operating under the Interim Rule for designated surveillance zones. Principles from APHIS, states, and Tribes are working holding discussions on both brucellosis and tuberculosis. An outline is complete for the Final Rule. The proposed rule is expected out in 2012, roughly one year from now, then one year roughly before the rule is fully adopted. Four listening sessions around the country will be held for public input, including June 1 in Bozeman.

APHIS currently expects little or no change to the final rule from the interim rule. The final rule will be put out for comment late in 2012. In the meantime, operations will continue under the interim rule.

### ***Pat—status of signatures on RTR agreement; has GNF special agent signed?***

Partners will drop the need for GNF to sign the agreement. Mary will return the original to MFWP (**\*\*Action item 11**).

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

The bison remain with Turner. MFWP is working on an Environmental Analysis (EA) to establish the final disposition of the animals. The EA is not yet out but expected soon.

***PJ, Jim—Transfer of bison to tribes***

This item discussed under two subcommittee sections (bison restoration to other locations, population modulation) reported on earlier.

**CITIZENS WORKING GROUP UPDATE**

***Meeting planning and funding***

Ariel Overstreet (Montana Stockgrowers Association) and Whitney Leonard (Natural Resources Defense Council) gave a short update on the deliberations of the Citizens Working Group (CWG). They noted that the CWG recently met for an entire day. That day's focus was on the three areas, as described by the CWG during their May2011 IBMP meeting report: population control, sero-prevalence, and increasing habitat.

As requested by the Partners, Ariel and Whitney provided dates for the remaining CWG meetings as follows: Aug8, Sep12, Oct10, and Nov14. The CWG recognizes that this final meeting (Nov14) has the potential to be moved as they work toward finalizing their efforts.

The Partners let the CWG know that they had come to resolution on paying for the meetings (principally facilitation costs), as follows: Aug and Sep (GNF), Oct (MDOL), Nov (YNP).

***CWG Presentation of Final Recommendations to Partners***

At the May2011 meeting the Partners requested that the CWG give the longest advance notice possible for when they would like to present their final recommendations to the Partners. During their presentation, Ariel and Whitney told the Partners that the CWG would be ready to present its final recommendations at the Nov30/Dec1 IBMP meeting in Chico Hot Springs.

In considering time allotment for the presentation, the Partners stated clear recognition that "this is a big piece of work and deserves sufficient time for presentation and deliberation." They decided to set aside 4 hours at the Chico meeting for the CWG presentation.

The Partners requested a preliminary (e.g., draft report) look at the CWG recommendations prior to the Nov30 meeting, so that they can arrive at the presentation more informed and ready to engage in discussion (the CWG can send to Scott for send out to the Partners mailing list; **\*\*Action item 12**).

***Expectations for CWG Recommendations***

The Partners stated explicitly that the CWG should not expect the Partners to act immediately upon the presentation of CWG recommendations. The Partners will look for opportunities to adapt some or all of the CWG recommendations as soon as possible, but ask the CWG to recognize that as a deliberative body they will need to analyze and discuss the recommendations before acting on them.

**ACTION ITEM AND TASK LIST PLANNING**

Along with the action items already called out in these notes, the Partners talked about three other items that need to be addressed, as follows.

- *Planning for annual report:* Past lead Partners MDOL and YNP provided guidance for getting the annual report done. They suggested sending out the past report as a template, including highlighting tasks that each Partner must undertake (i.e., those management actions in the adaptive management plan for which they are the lead agency).
  - Partners are given one month to complete their tasks and return to the lead Partner. Partners may include ideas for recommended adaptive management changes at this time.
  - The lead Partner will then compile the responses into a final report, plus add discussion/review of the year (e.g., for 2011/12 add discussion about subcommittees, CWG), business, and so on, then distribute to the Partners for review and comment *before* the next IBMP meeting (lead Partner to make changes as requested).

- Separately, a record of proposed adaptive management changes, if any, will be compiled by the lead agency for discussion at the next Partner meeting.
- At that next meeting, the Partners will sign off on the annual report which, in turn, will be posted to IBMP.info following the meeting.
- *Future Lead Partners:* MFWP for 2011/2012. APHIS for 2012/13. Lead Partner changes on November 1<sup>st</sup> of each year.
- *Subcommittee telecon:* To be convened by GNF (\*\*Action item 13) on Sep21, from 10 AM to 12 noon. Major topic to be presentation of a prioritized list of subcommittee adaptive management recommendations.

**REMAINING 2011 MEETING SCHEDULE**

The Partners discussed the value of having a fall presence (possibly field trip or open house) in the Gardner Basin beyond the already planned regular IBMP meeting in nearby Chico Hot Springs. After considerable discussion, including to members of the CWG, the Partners decided to drop the idea of the Gardner Basin meeting this fall and instead add it to the Parked items list for consideration at a later date.

| Date          | Time (expected) | Location              | Host | Notes  |
|---------------|-----------------|-----------------------|------|--|
| Nov 30- Dec 1 | Noon to noon    | Chico Hot Springs, MT | MFWP | MFWP will take over as lead IBMP Partner Nov 1, 2011 |

**PARKED ITEM LIST (POTENTIAL AGENDA ITEMS OR FUTURE MEETINGS)**

The following parked items list is to be considered as a possible source of agenda items for future meetings. The list is carried forward to, and refreshed after, each IBMP meeting.

- (1) MFWP to sit down with landowners and identify AM opportunities based on their constraints.
- (2) Plan winter West Side field trip to occur in winter of 2012.
- (3) 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”. Some discussion that this item should be led by MFWP.
- (4) A request was made by MFWP that the Partners begin talking about conservation easement funding. A statement was also made that the CWG could be helpful in this realm.
- (5) Brian M to provide a set of quarantine procedures describing methods of safe quarantine and release of bison.
- (6) The Partners need a public relation campaign to explain the benefits of transferring bison away from YNP as an integral part of achieving the twin goals of the IBMP.
- (7) A suggestion was made that the Partners piggyback a meeting of their own (whether formal IBMP meeting or open house was not discussed) with the CWG meeting.
- (8) Consider having a meeting (field trip, open house) in the Gardner Basin due to large interest there, particularly after the adaptive management changes made in Mar/Apr 2011. Desired outcome of the field trip would include review of public infrastructure and boundary adaptive management changes; looking at future challenges; showing work done to prepare for new North perimeter; challenges and opportunities associated with Mar/Apr 2011 adaptive management changes.

**PUBLIC COMMENT PERIOD**

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 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, to facilitate focus on the comment rather than the speaker. Line breaks in the numbering indicate a new speaker.

1. \*\*Request to put meeting minutes on website from telecons.
2. Statement of thanks to CSKT for a) hosting and b) modeling a wonderful way of doing things.
3. Recognition that Partners don’t have all the answers but are trying.
4. Statement of being struck by Dale Becker’s statement that the biologist and highway engineers could work together once they better understood each other—what a good metaphor for the IBMP interests.
5. Recognition of an ongoing tension—what is our goal with bison? Do we treat bison as wildlife or not?
6. Statement that an even bigger tension is between two possible IBMP philosophies: 1) we should not let perfect be the enemy of good versus 2) don’t lower the bar too fast.
7. Statement that great-grandfather hunted bison 80 miles away near Great Falls. Also tribal relations hunted east of Billings.
8. \*\* Statement that the most important issue is education.
9. Statement that tribal people are not a “special interest”. Instead interest of tribal people is totally different that this IBMP management effort. Tribal people should have nothing to do with management.
10. Statement that tribal people should be able to hunt bison anywhere east of the divide.
11. Statement that speaker’s family takes the bison hunt very seriously, including prayer time to get ready. It is very sacred moment for the speaker to take the bison to his family. They take this issue, very, very seriously.
12. \*\* Statement that the #1 issue with the hunt as currently scoped is that law enforcement must be on the same page; sometime law officers from different jurisdictions or agencies give contradictory information. This could be a key safety issue—we don’t want to see tribal people hurt.
13. Statement that it is sad to be managing bison around brucellosis when tribal people lived with them for 1000s of years successfully.
14. Statement that the tribes gave up 22M acres to the Fed govt (for YNP?) but that the tribes have never been disconnected from YNP.
15. Statement of thanks to Tom McDonald and CSKT for their efforts in preparing for and hosting the meeting. Great appreciation for the drummers and the buffalo song.
16. Statement of appreciation for what has been done on Highway 93. Thanks to the tribes for “doing it right”.

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