

Summary Report from the Interagency Bison Management Plan Meeting April 23, 2015



First draft presented 07 May 2015 by meeting facilitator Scott Bischke

The following summary report reflects activities at the April 23, 2015 meeting of the Interagency Bison Management Plan (IBMP) Partners, held at the Holiday Inn in West Yellowstone MT. This report comes from the notes and flip chart records of facilitator Scott Bischke¹. The eight Partner attendees were Don Herriott (APHIS), Leonard Gray (CSKT), Ervin Carlson (ITBC), Rob Tierney (MDOL), Sam Sheppard (MFWP), Brooklyn Baptiste (NPT), Steve Iobst (NPS-YNP), and Mary Erickson (USFS-GNF). In addition to those at the deliberative table, ~20 staff members from across IBMP organizations and ~35 members of the public were present.

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Action items identified

Table 1.—Action items identified during this meeting

#	Who	What	By when
1	SB	(1) Post Nov2014 meeting notes to IBMP.info as final	ASAP
2	Partners	(1) The annual hunt meeting is scheduled May 27 in Missoula.	May 27
3	SS	(1) Agree that next year there will be a weekly hunt conference call	Winter 2015/16

Agreeing to previous meeting minutes

The facilitator asked if there were any objections or changes to the draft meeting report from the November 2014 IBMP meeting and noted, per Lead Partner request, that those objections should have been forwarded to the facilitator before the meeting. No objections were brought forth. Thus the facilitator, per Partner Protocols, is to post the November 2014 meeting notes to IBMP.info as “final” (** action item 1).

Discussion 2015 Winter IBMP Operations (West and North sides)

REPORT

The Partners discussed both West and North side operations. PJ led the discussion with a summary of efforts to date, as follows:

Bison Harvest (214 total)

- Public Hunt (42 total)
 - Gardiner basin: 29 total (28 males, 1 female)
 - West: 13 total (7 males, 6 females)
- Subsistence Hunt (172 total; Gardiner)
 - CSKT: 138 (94 males, 25 females, 19 calves)
 - Nez Perce: 25 (18 males, 2 females, 2 calves, 3 unknown)
 - Shoshone-Bannock/Umatilla: 9 (8 males, 1 female)
- Issues / Comments
 - Male-biased harvest; Firing line; Gut piles; Safety; No bison/pronghorn movement north of Gulch when hunting ongoing

Shipments to Slaughter/Research

- Captures at Stephens Creek
 - Three weeks: January 14th to February 5th (January 14-17, 23, and 30-31; February 2-5)
 - Bison available for hunting north of park boundary on each capture day
 - Few bison north towards Stephens Creek after February 8th due to mild weather
- Distribution of Bison
 - 514 total shipped; 4 holding/processing mortalities

- Salish-Kootenai (347); ITBC (138); Eastern Shoshone (22); APHIS (7)

Total Removals: North Boundary

- Actual Removals
 - 719 total (264 males, 291 females, 161 calves, 3 unknowns)
- Objectives
 - 800-900 (240 males, 480 females, 180 calves)
- Issues / Comments
 - Fewer females removed than expected
 - Hunting effects on capture operations and vice versa

Hazing Operations and Safety Issues

- Gardiner Basin
 - None in Yellowstone National Park
 - MFWP / MDOL Comments
 - Other Agencies and Native American Tribes
- West
 - None in Yellowstone National Park
 - MFWP / MDOL Comments
 - Other Agencies and Native American Tribes

Remainder of the Season

- Gardiner
 - ~150 bison from Gardiner to Mammoth
 - 3 bison in Corwin Springs
- West
 - ~750 bison from Madison Junction west
 - Ongoing hazing by MDOL
 - Haze-back in mid-May
- Issues / Comments

Recommendations

- Pre-harvest meeting in May or June
 - Agree to age, herd, and sex ratios for harvest
 - Move the hunt away from the road
 - Stagger hunt/no hunt days to allow bison movements (or something with similar effect)
- Highway 89 Speed Limit
 - Reduce to 55 mph when bison guard in place
 - State agencies coordinate with MDOT?
- 2016 Removal Recommendations in July

DISCUSSION

Partners carried out a short discussion on the year's winter operations following PJ's report. Key points and comments put forth included:

- The ship and slaughter program harms hunting opportunities. One Partner said their feeling was that the ship and slaughter program was the leading management priority this year.
- 171 bulls were captured in the trapping effort. A question was asked—can we reduce the number of bulls in the ship and slaughter program to allow more bulls to be harvested by hunters? NPS pointed out that many of the bulls taken for ship and slaughter are immature and thus not the animals hunters

- target, plus if released might stay around the trap. Of the bulls taken to ship and slaughter, only 33 were adults.
- SS noted that MFWP is considering increasing cow/bull ratio of hunting permits for State hunters. The work is not complete to make this happen as of this meeting but rather considered “in process”.
 - BB noted that NPT hunters have to travel a long way at considerable expense to hunt, so any information possible as to how many bison are out of the Park and similar is of great value. He said that the Tribe only had a 9% success ratio. With 140 permits they would have allowed as many as 240 animals. He also noted that things change on the ground every day and then more broadly, that with climate change it is getting warmer, with less snow, and bison are not coming out of the Park as early or in as large of numbers for hunting.
 - Multiple comments on the fact that operating without weekly winter ops telecons for most of the winter was a bad idea. Several Partners noted that a weekly check in—even when there is nothing to report—is of value for collaboration. One Partner said succinctly, we need more fluid adaptive management *during* the hunt. Weekly calls, it was noted, had been taking place the last three weeks, in part due to such requests by multiple Partners.
 - Beattie Gulch was noted as still being a pinch point and area of high hunter use. CSKT hunters used this area more than in past years. CGNF said that it had worked with the Tribes to decrease conflicts this year and that such works needs to continue each year forward. Partners recognized the need to better distribute bison to likewise disburse hunters and hunter impact. The selective use of fire was suggested as a way to increase forage (amount and quality) and enhance habitat restoration.
 - There has been little hazing outside of the Park to date. SS noted that there have been some bulls out on private property. Two bulls were pushed to the Park boundary, and that has been pretty much the extent of hazing this year.
 - RT reported that MDOL had done no hazing on the north side and had assisted MFWP a few times. On the west side bison were moved from Zone 3 private to Horse Butte. Haze back is expected to start the week of May 11-15.
 - The annual hunt/harvest meeting is scheduled for May 27 in Missoula (** action item 2).
 - SS agreed that next year there will be a weekly hunt conference call led by MFWP (call instituted by NPS) to start roughly mid-November (** action item 3). In response to a question, SS said on initial thought that he envisioned these as calls focused only on the hunt, not simply expanded ops calls. Still, he noted that it could be that early in the season the telecons could be mostly about the hunt (to help hunters, increase safety, and decrease ship and slaughter), with more of a focus on operations later in the season. One Partner asked if in that scenario early season would only involve MFWP and the Tribes. SS responded that no, NPS would always be involved given potential to trap bison. The CSKT noted that each year the Tribal Council has to agree to take part in the ship and slaughter program and that it is not always unanimous. Still, as long as the policy is to ship and slaughter, the Tribe wants to be part of having that meat for its people. JH said that he is aware that some call the Tribes a “tool” of the industry, but that feels unfair, especially when he sees what an incredibly big deal getting the bison meat is to families who can’t hunt.
 - EC noted that ITBC tries to stay back from involvement in ship and slaughter operations until after Tribes have completed their hunts and expects to continue that policy. He also noted that there are other tribes considering exercising their tribal hunting rights.
 - NPS will undertake its yearly count in the June/July timeframe.
 - RC noted that APHIS enrolled their last 7 bison in the Gonacon study and that he will be reporting on the status of that program later.
 - No safety issues were reported this operations season.
 - MFWP and NPS recently sat down with Park County. It was suggested that the best scenario would be to have the speed limit decrease every year when the cattle guard goes in on the edge of Yankee Jim Canyon.

North Hebgen habitat restoration efforts

ME noted that the CGNF's North Hebgen restoration effort is an opportunity for Partners to talk about a bison management project that is practical and happening "on-the-ground". The project provides a management tool—namely, landscape manipulations targeted at providing improved bison grazing habitat (and other benefits for other wildlife, each with their own needs)—that might impact bison habitat and hence the IBMP. She said that the Partners spend lots of time on the hunt, hazing, and similar topics, but not as much time on habitat.

Lauren Oswald then provided an update on the project. The CGNF received ~50 comments from partner agencies or the public during the planning phase of the Forest's proposed efforts. The CGNF also held a public meeting at which ~30 people provided comments. Those comments helped shape the habitat management alternatives under consideration under NEPA (the project is being carried out under an EA, not an EIS). The Forest expects the compilation document to be complete in the winter of 2015/16.

Just ahead the CGNF is planning four field trips based on the possible habitat restoration alternatives under consideration. The first of the trips occurs July 15.

New Genetic Findings on YELL Bison & Brucellosis Transmission Dynamics in the GYE

The Partners listened to two talks on bison and brucellosis transmission, as are briefly described below. Dr. Kamath's presentation is not provided on the IBMP website due to a USGS policy that data and results cannot be posted online prior to formal review and publication. Pauline stated a willingness to speak further with individuals per their interest (email: pkamath@usgs.gov). Rick Wallen's presentation can be found at <http://ibmp.info/Library/20150423/20150423.php>.

BRUCELLOSIS TRANSMISSION DYNAMICS (DR. PAULINE KAMATH, USGS)

Dr. Kamath spoke about the relationships among *Brucella abortus* bacteria isolated from wildlife and livestock and what those relationships tell us about the transmission history of the brucellosis bacterium. She said that genomics can provide a powerful method to assess brucellosis transmission because:

- *Brucella abortus* has low genetic diversity;
- VNTR genetic markers are good transmission indicators because of high mutation rates, they represent a small portion of the genome, and they are unstable;
- whole genome sequencing provides the most comprehensive genetic data for assessing transmission; and
- time sampling allows for estimating rates and directionality of transmission.

Pauline said the objectives of her study were to estimate the number and timing of *B. abortus* introductions into the GYE; identify if *B. abortus* lineages are associated with host species or locations; and assess and quantify transmission among host species and locations. The study included 245 *Brucella* genomes from around the GYA and across three species: bison, cattle, and elk.

Pauline defined the method for assessing cross-species transmission dynamics and how the analysis can allow determination in what species a *Brucella* bacteria originated. She noted that GYE livestock *Brucella* outbreaks were nested within elk *Brucella* clusters.

Dr. Kamath concluded with three preliminary findings associated with the study to date:

- *B. abortus* history in the GYE
 - Time to most recent common ancestor in GYE ~250 years ago
 - 5 divergent *Brucella* lineages = 5 introductions
 - 3 geographically limited, 2 widespread lineages
- Host transmission dynamics
 - Most transmission events are local and occur within species
 - CST: Highest transition rates from elk → livestock
- Spatial transmission dynamics
 - Long distance transmission to north is rare

- Little to no east-west movement in Montana
- Ongoing local transmission within wildlife
- NER/Teton region: ancestral source

Dr. Kamath made a strong point that the data and analyses she presented are preliminary, meaning that the results described herein are subject to change.



Figure 1.—Dr. Pauline Kamath of the USGS Northern Rockies Research Center addressed the IBMP Partners, staff, and public on brucellosis transmission dynamics.

BISON GENETICS FINDINGS (RICK WALLEN, NPS)

Rick Wallen described a project having two objectives: (1) to better understand genetic diversity of mitochondrial DNA (mtDNA) in Yellowstone bison, and (2) to test the hypothesis that bison exhibiting mtDNA genotype with mutations have a reduced capacity to produce energy (Pringle 2011). The work was done in conjunction with the Derr Lab at Texas A&M.

Biologists from YELL collaborated with geneticists at Texas A & M University to estimate the overall diversity of mitochondrial DNA haplotypes in 20 DNA samples from bison in central and northern Yellowstone. Eight mitochondrial DNA haplotypes were identified, including the two previously known haplotypes (6 and 8) in nearly equal proportions and six new haplotypes for Yellowstone bison. Four haplotypes had nucleotide sequences from the indigenous bison from central Yellowstone, while four haplotypes were apparently from bison introduced to northern Yellowstone in 1902 from the Pablo-Allard herd in northern Montana.

NPS biologists worked with geneticist Dr. James Derr at Texas A&M University to test the hypothesis of Pringle (2011) that mutations in bison with maternal haplotype 6 have reduced capacity in their mitochondria to produce energy through normal physiological pathways. Live tissue samples from four haplotype 8 bison and two haplotype 6 bison were subjected to an *in vitro* oxidative phosphorylation test. Preliminary findings indicated no difference between the two haplotype groups of Yellowstone bison in their ability to produce energy at the cellular level. However, similar analyses of tissues collected from bison-cattle hybrids indicated they had a lower ability to produce energy at the cellular level. Yellowstone bison likely use alternate physiological mechanisms to produce energy and overcome mutations that could reduce this ability.

Rick concluded by describing what comes next in the study:

- Repeat with 80 more samples to identify additional haplotypes existing in Yellowstone bison
- Develop a shortcut procedure for haplotype identification
- Collect samples from 100-200 additional Yellowstone bison to estimate mtDNA diversity existing today
- Conduct a larger evaluation of the genotyping error rate expected from the collection of fecal DNA

Partner briefings and updates

(Note: this item was brought forward for discussion in the morning session.)

New Bison Management Plan/EIS—Jennifer Carpenter

- NPS-State of Montana co-leads on plan
 - Five Cooperating Agencies (NPT, CSKT, ITBC, CTUIR, USFS)
- Public Scoping Period has begun
 - March 16 – June 15, 2015
 - Public Scoping meetings mid-to-late May (specific dates announced soon)
 - Scoping newsletter available
 - Draft Purpose and Need; Objectives
 - Draft Alternative Concepts
 - Draft EIS scheduled for summer 2016

(The facilitator was asked to post the following web links: The NPS Yellowstone Bison Management Plan website can be found at <http://parkplanning.nps.gov/YellBisonPlan>; the scoping newsletter at <http://parkplanning.nps.gov/document.cfm?parkID=111&projectID=50877&documentID=64791>.)

NPS Quarantine EA—Jennifer Carpenter

- What—The Use of Quarantine to Identify Brucellosis-free Yellowstone Bison for Relocation Elsewhere
 - Environmental Assessment evaluates establishing quarantine program for bison at one or more facilities within YNP, on tribal lands, or elsewhere
 - Public Scoping Completed Fall 2014
 - Draft EA under DOI Solicitor Review
 - Public Release of EA in Summer 2015

In response to a question, Jennifer noted that many areas are under considerations for a possible quarantine facility and that an area on USFS land is not on the short list.

Status of lawsuits and other petitions—Jennifer Carpenter

- FOA and BFC filed Emergency Rulemaking Petition to Protect the Genetic Diversity and Viability of the Bison of Yellowstone National Park and Gallatin National Forest with DC Federal District Court
 - NPS and USFS each responded to petition and DC District Court dismissed the case with stipulations in March 2015
- Complaint filed by ACLU and BFC requesting immediate, continuing, and future access to Stephens Creek facility
 - NPS responded to complaint on February 17, 2015 and held media tour of facility on February 18, 2015
- Two separate petitions submitted to U.S. Fish and Wildlife Service (USFWS) to list Yellowstone Bison as threatened or endangered under the Endangered Species Act
 - Western Watersheds Project & Buffalo Field Campaign, November 2014
 - Private individual, March 2015
 - Both petitions are currently under review by USFWS
- NPS received request from 6 NGOs and a law firm to invite the USFWS to serve as cooperating agency on new Bison EIS
 - NPS in discussion with USFWS regarding participation

STATE OF MONTANA BISON MANAGEMENT PLAN (ARNIE DOOD)

Arnie reiterated from past presentations that the State of Montana Bison Management Plan exists separately from the IBMP, focusing on the rest of the state away from areas covered by the IBMP. (As such, much of the information here is repeated from previous IBMP reports.) The State received some 23,000 comments during public scoping on an EIS for a potential State Bison Management Plan. Arnie reminded the

Partners a Lewistown Bison Group has met three times: in Lewistown in September 2013, in Billings in July 2014, and more recently in October 2014 in Great Falls.

At the Billings meeting the assembled group came up with five possible alternatives (these in addition to those developed in the public scoping) for a future environmental impact statement (MEPA analysis). In Great Falls, a goal was to get more input from the group regarding the proposed private/public partnerships. MFWP, Arnie said, is pursuing a programmatic EIS. One big question, regardless of the alternative selected, is the question of where?

At this IBMP meeting Arnie provided description of ongoing wild bison efforts that might serve as case studies for the five alternatives:

- (1) no action alternative;
- (2) Private landowners voluntarily allow bison on their land but the bison remain public;
 - o Potentially similar to programs in progress at the American Prairie Reserve in NE Montana, or at in Utah's Henry's Mountains
- (3) Tribes voluntarily allow bison on their tribal lands but the bison remain public;
 - o Perhaps operating under the Blackfoot Tribe Innii Initiative
 - o Perhaps similar to the Books Cliffs (Utah) bison restoration efforts by the Ute Tribe
- (4) Bison are established on a large, conflict free area of say 50,000 acres; or
 - o Case studies of Wood bison herd in Alaska, Pink Mountains in BC
 - o Possible program locations might be around the CMR Wildlife Refuge or in the Badger-Two Medicine area of the Rocky Mountain Front (Arnie strongly emphasized that these two locations were only discussed; there has been no formal proposal to this end)
- (5) Place 50-100 animals in a mixed landscape where they will have little impact on rural issues.

Arnie described a number of things learned along the way in pursuit of a Statewide Bison Management Plan:

- Other groups have used fire to successfully improve habitat for bison
- Form local working groups to better share information, hear concerns, and gain cross-group understanding and/or collaboration
- It might take some time — for example 20 years elapsed between the first meeting regarding the Book Cliffs and when bison were moved there
- A test project, as Banff is doing, might be a good way to help gain public support though it might not be cheap—they are estimating US\$5M to complete a pilot project release of 30-50 animals

As he regularly has done in the past, Arnie reminded those attending the IBMP meeting that regardless of the bumps and bounces of the State Bison Management Plan (or the IBMP, for that matter), that bison as an issue for the State of Montana is not going away. He concluded noting that they expect an early May release of the programmatic EIS.

Quarantined bison from Turner lands (Sam Sheppard)

No changes; nothing new to report.

MEPA process for addition of new west side lands open to bison (Sam Sheppard, Rob Tierney)

The new west side EA is at the governor's office. On questioning, Sam and Rob noted that they could provide no further information at this time, just where the document resides waiting for action.

Governor's directive not to haze on private property (Rob Tierney)

The Governor's office provided clarification on the directive. That directive does not affect anything in Zone 3. It only applies to Zone 2 and is at the discretion of the State Veterinarian.

Sam, Rob—Status of state legislature bills impacting bison (Sam Sheppard, Rob Tierney)

A number of bills with the potential to impact management of bison and brucellosis were brought forth in the Montana legislature session just about to conclude. Sam and Rob chose to highlight these two that were not rejected at the time of this meeting:

- SB194—passed and signed. It is described as AN ACT REQUIRING A FORAGE ANALYSIS AS PART OF A MANAGEMENT PLAN BEFORE WILD BUFFALO OR BISON ARE RELEASED OR TRANSPLANTED ON TO PRIVATE OR PUBLIC LAND IN MONTANA; AMENDING SECTION 87-1-216, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.
- SB284—still alive. Passed both houses and is on the Governor’s desk. It has a short title of REQUIRES APPROVAL OF COUNTY COMMISSIONERS FOR BISON RELOCATION. (Facilitator’s note: This bill was vetoed by the Governor in May 2015).

Sam, Rob—Outcome of MDOL/MFWP meeting from Nov2014 regarding potential to direct state licenses to select cows or bulls based on desired population control goals

Discussed under Winter Ops section.

Update on bison coexistence/fencing project (Sam Sheppard)

The bison co-existence project continues, with funds available to help landowners purchase and erect fences. The 2014 Annual Report contained a full description of number of projects completed and dollars spent since the inception of the program.

Gonacon trials (Ryan Clark)

RC reminded everyone that the hope is that Gonacon will act to stop the normal reproductive cycle so that younger cows—2-4 years old, those most likely to transmit brucellosis—will not breed, become pregnant, and transmit brucellosis.

Ryan showed preliminary results from the first cohort of bison, as shown below:

Year	% Pregnant w/Gonacon	% Pregnant w/out Gonacon (control)
Year #1 — 2013	20	74
Year #2 — 2014	29	71
Year #3 — 2015	44	90

In response to questions, Ryan stated strongly that the results shown are preliminary and that they should be not be used to make any solid conclusions or predictions until further testing is completed.

GNF/MSU project to assess rangeland health in Gardiner Basin

Jodie Canfield reminded the Partners that CGNF has undertaken a rangeland health research project in partnership with Dr. Clayton Marlow’s lab at Montana State University. Dr. Marlow is part of MSU’s Animal and Range Sciences Department. The goal of the work will be to assess the rangeland health in the Gardiner Basin as a precursor to habitat restoration efforts on forest lands. The genesis of the project was 2011 work to assess Cutler Meadows forage as part of expanded tolerance for bison on public forest land north of YNP. Goals of the project include assessing the current reference soil and vegetation conditions.

Dr. Marlow described the goals of the work to be to develop ecological baseline for comparison as the system shifts from being elk- to bison-dominated. To accomplish that goal, he noted two key objectives:

- Identify historic data sets that might serve as baseline
- Construct reference conditions from new field data

Dr. Marlow noted two major challenges in the work: lack of historic plant community descriptions and incomplete or undeveloped ecological site descriptions. To create a Gardiner Basin reference baseline, he described the following data needs:

- Sampling Stratification
 - Physical layer — tree canopy cover, slope, aspect, elevation, bedrock and unconsolidated
- Background Information
 - Custer/Gallatin NF hydrologic and geologic maps
 - Bison landform preferences

Looking at geology, aspect, and slope, Dr. Marlow's team did analysis to identify most likely bison grazing sites. From an overall study area of 113,873 acres, they came up with a potential sampling area of 29,368 acres. The team will take data at randomly selected sites within this area. Dr. Marlow described the sampling and techniques to be done at each sampling location, including for the soil and vegetation layers. He said their final data set will include the following information:

- Soils—Depth, texture, rock content, organic matter, total nitrogen
- Vegetation—Bare ground, litter, basal area, canopy cover, shrub cover, shrub density
- Occupancy—General level of use on the site

Data analysis will have a goal of detecting a 20% change in soil or vegetation in parameters with 80% accuracy. From preliminary data taken in 2014, they believe this goal can be met with 57 sampling sites. The end product of the work will be a well-defined plant/soil community description for tracking ecological condition.

Dr. Marlow's presentation can be found at <http://ibmp.info/Library/20150423/20150423.php>



Figure 2.—Dr. Clayton Marlow of Montana State University addresses the IBMP Partners, staff, and public on preliminary efforts and planning under the joint CGNF and MSU habitat assessment work in the Gardner Basin.

Bison Grazing Study—NPS and Syracuse University

Rick Wallen spoke about joint NPS/Syracuse University research slated at understanding the role bison play in shaping plant communities. The study sought to determine consumption rates on summer range, plus the response in forage quality at grazed areas.

Rick said that it was important to understand that the system has changed from elk being the dominant grazer to one where now bison are the dominant grazer. He noted that previous studies had shown that above-ground productivity was 47% greater on grazed plots compared to ungrazed plots, with the stimulation of above ground production likely due to the migratory behavior of the ungulate grazers.

Exclosures were employed to study plant production in both grazed and ungrazed areas. The group had 6 study sites across the summer range of the northern bison herd to study plant production and consumption. Two of those study sites had an additional exclosure where they studied the influence of controlled rates of clipping (in the absence of the nitrogen recycling provided by urine and fecal deposition). Hand clipping within large exclosures was employed to simulate the influence of grazing.

The research revealed that while high rates of consumption may result in reduced biomass production, grazing stimulates large amounts of soil nitrogen for plants leading to higher nitrogen availability in the food available for bison. The high level of nitrogen produced at these sites provides benefit to the bison. Bison are

selecting areas with high quality food value (grasses with higher nitrogen content). Grazing and deposition of urine and fecal material are thus seen to be enhancing grass quality.

Rick further noted that areas being grazed at very high consumption rates are quite small compared to total available grassland habitat in the park. He expects that shifting patterns of use is likely to be an ongoing process with Yellowstone bison.

Rick concluded with four areas of future potential research:

- (1) Estimate grazing effects on above-ground production in wintering, transitional, and summering areas used by bison.
- (2) Link vegetation conditions with the timing of bison foraging in seasonal use areas. Are bison tracking food quality and/or quantity during spring and summer migrations?
- (3) Since bison repeatedly return to the same areas during summer, does re-grazing improve food quality and quantity?
- (4) How does the grazing lawn created at lower elevations in the Lamar Valley compare to higher elevation areas above the valley?

Rick's presentation can be found at <http://ibmp.info/Library/20150423/20150423.php>



Figure 3.—Rick Wallen of NPS addresses the IBMP Partners, staff, and public on the grazing studies carried out by NPS and Syracuse University.

National Academy of Sciences Review of Brucellosis in Wildlife in the GYA

Following introductory remarks by Robin Schoen, Peggy Yih described the current state of an effort underway by the National Academy of Sciences (NAS) to better understand brucellosis in wildlife in the Greater Yellowstone Area. She began describing what makes NAS uniquely qualified to provide an unbiased analysis on the topic (and others), including their method of review panel selection to assure the highest quality of science put forth with independence, scientific objectivity, and balanced representation.

The review, which is being co-sponsored by APHIS, includes the following description in its Task Statement (NRC = National Resource Council, closely related to the NAS):

*In an update of the National Research Council (NRC) report *Brucellosis in the Greater Yellowstone Area (1998)*, an NRC-appointed committee will comprehensively review and evaluate the available scientific literature and other information on the prevalence and spread of *Brucella abortus* in the Greater Yellowstone Area (GYA) in wild and domestic animals and examine the feasibility, time-frame, and cost-effectiveness of options to contain or suppress brucellosis across the region.*

The study will examine factors associated with the increased occurrence of brucellosis transmission from wildlife to livestock and the recent expansion of brucellosis in non-feedground elk, including whether

evidence suggests that brucellosis is self-sustaining in elk or if reinfection through emigration from feeding grounds is occurring. The study also will explore the role of feeding grounds, predators, population size and other factors in facilitating brucellosis infection.

The study committee will examine disease management activities and vaccination strategies being undertaken or considered at the state, regional, and federal level, and evaluate the biological, animal-health, and public-health effects of those activities. The committee also will examine the current state of brucellosis vaccines, vaccine delivery systems, and vaccines under development for bison, cattle, and elk, as well as the effectiveness of currently available vaccination protocols. In the course of its review, the committee will explore the likelihood of developing more effective vaccines, delivery systems, and diagnostic protocols for cattle, bison and elk.

Throughout the study, the committee will meet with wildlife managers, animal health officials, land managers, native peoples, and other stakeholders, including the members of the public, to understand the implications of brucellosis control efforts on other goals and activities in the region and nationally. The committee will examine the societal and economic costs and benefits of implementing various measures to reduce or eliminate the risk of brucellosis transmission to cattle and within wildlife relative to the costs and benefits of allowing the persistence of brucellosis in the GYA. In a consensus report, the committee will summarize the findings and conclusions of its analysis and based on the scientific evidence, describe the likely effectiveness and trade-offs of options that could be used to address brucellosis in the GYA.

In addition, the report will describe and prioritize further research needed to reduce uncertainties and advance the knowledge base on brucellosis vaccines, vaccine delivery mechanisms, and diagnostics.

Peggy gave the following updates on the current status of the review;

- Received 100+ recommendations of potential nominees from various sources.
- Final nominees have been contacted based on their individual expertise and experience to address the task. Categories of expertise include: brucellosis; wildlife medicine; conservation; ecosystem ecology; wildlife disease epidemiology, modeling, and transmission; laboratory diagnostics; vaccine development, protocols, and experimental design; resource economics and cost-benefit analysis; zoonotic diseases.
- Final nomination slate submitted for approval.
- Projected timeframe
 - For panel meetings:
 - 1st meeting: Late June/Early July 2015 in GYA
 - 2nd, 3rd, and 4th meetings to occur in 2015 through early 2016
 - For report review: Winter 2016
 - For report release: late Spring/early Summer 2016

Robin and Peggy's presentation can be found at <http://ibmp.info/Library/20150423/20150423.php>



Figure 4.—Robin Schoen (at the podium) and Peggy Yih of the National Academy of Sciences describe the current status of the NAS review of brucellosis in wildlife in the GYA.

Future activity planning

FUTURE MEETINGS

At their fall 2014 meeting, the IBMP Partners set aside the following dates for their summer and fall 2015 meetings. In both cases, the Partners picked two days to allow for a possible field trip day. Confirmed dates and locations, and later draft agendas, will be posted well in advance.

- *August 5/6 -- Lapwai, ID*
 - This meeting had previously been scheduled for November 2014. Given public concern about the distance and winter driving, the Partners committed to, and MO agreed, to hold their summer 2015 meeting in Lapwai with the NPT acting as meeting host. As part of the decision, NPS agreed to incur responsibility for meeting location fees associated with the November 2014 meeting, while the NPT will do the same for the summer 2015 meeting. For the November 2014 IBMP meeting, then, NPS acted as host, NPT as Lead Partner. For the Summer 2015 IBMP meeting, NPT will act as host, NPS as Lead Partner.
 - The Partners had a short discussion on the idea of a field trip and decided to allow the NPT to suggest one or not, per their desire. Field trips associated with NPT fisheries work and/or work with 15 national forests were mentioned.
 - The NPT said that they would be open to hearing about topics for science speakers at the meeting.
- *November 18/19 -- Bozeman or Chico Hot Springs, MT (TBD)*

BROOKLYN BAPTISTE DEPARTURE

SS noted that Brooklyn Baptiste would be leaving the NPT Tribal Council and that this would be his last IBMP meeting. SS said that when the starting work on organizing and planning the hunt ten years back, he could not have known that never could he have found a better partner to work with than Brooklyn. He said that after years of working with him, that he wanted to recognize that Brooklyn was a testament to what people can do when they come together with open hearts and minds.

The Partners, staff, and public all gave Brooklyn a standing ovation. Brooklyn was quite overcome with emotion. After a pause, he made some concluding remarks to his time with the IBMP, which are paraphrased here:

I have been blessed to work with good people. I know this has been and is contentious work. I have worked in many capacities—NPTEC Secretary, Chairman of the Natural Resource Subcommittee, chairman of

the Columbia River Inter-Tribal Fish Commission, and more. The work can be contentious; that is just how it is. Sometimes I think that as Indian people we should be so mad, but we come here in good faith. All we can do is go forward. I was here from the beginning saying you need to let us in. We needed to be at the table to get the respect we deserved. I used to say we should bring the pipe to connect with our creator and to assure good faith and no lies. Now I say I don't bring the pipe anymore, I need to bring my attorney (laughter). Everyone has great hearts but we come from different points of view. Yes sometimes we are two steps forward and one step back but still we are getting to a better place. Our people lived in harmony for thousands of years with the bison. We have never driven anything extinct. Sometimes we all need to listen. We are related to the bison because they are part of our creation story. How would you feel if someone was trying to destroy your creation story? You would fight.



Figure 5.—Brooklyn Baptiste (photo credit: NPT website).

Public comment

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

Names associated with comments are available from the facilitator. They are not included here, however, in an effort to focus on the comment rather than the speaker. Line breaks in the bullets indicate a new speaker.

Public comment was taken during the middle of the day in reaction to numerous past public comments about public input being of less value at the end of the day.

- (The first comment was read on behalf of someone unable to attend) Today's meeting should have started with 507 minutes of silence for the 507 bison killed late winter 2015 by Yellowstone National Park.
- When people ask me how my winter was, my response is: VERY SAD. Every morning I looked out my windows into the Gardiner Basin, it was void of buffalo.
- I tell people that the reason for no buffalo was that the buffalo was being hazed, corralled, and shipped off to slaughter just few miles south.
- Late winter 2015 was in stark contrast to late winter 2014. In late winter 2014, it was like the Gardiner Basin became Yellowstone North, it was amazing. Most mornings I would look out and see large groups of bison, mingling with deer, sheep and elk, with the eagles screeching overhead.

- Sometimes it was like in the movies, buffalo everywhere, and it brought joy to our hearts. There were so many around my place that the property was littered with bison poop. So in May 2014 we organized bison poop pick up day. We had 30 volunteers, pick up about 4 truckloads of bison fertilizer for their gardens from about 14 acres in about 2 hours. We celebrated with donated bison burgers – and we were thankful to the buffalo for our bounty and coexistence.
- Late winter 2015 there were no buffalo, there was no poop, there was no celebration of bison; only sadness. I blame all of you sitting at the table; the entire room should be ashamed of killing 507 of bison, because we could not come to a solution to find more habitats and extend the hunting season. There were 10,000 applications for bison tags.
- Mostly, I blame you: Mr. Zaluski and Mr. MacKay and your constituents. Feel free to let them know that they permanently lost a customer. I will never buy conventional beef again.
- I also blame the Park Service, as it is hypocritical not to allow ethical sustenance hunting in Yellowstone, but acquiesce to wasteful killing of 507 bison. If we were talking about elk, this would have never happened, even though there are more elk than bison.
- The next speaker provided a 5-page paper describing the results of a poll conducted by Tulchin Research. The conclusion of that paper states: “In conclusion, our research finds that Montana voters greatly value bison in their state and strongly support efforts to restore them in the wild. Voters believe that bison should be managed like other wildlife, back efforts to restore bison populations to public lands and tribal lands, and support relocating bison from Yellowstone to establish new herds in the state. Additionally, voters overwhelmingly reject proposals currently before the Montana Legislature that would treat all bison as livestock rather than wildlife and that would otherwise undermine Montana FWP and tribal efforts to restore bison populations.”
- Over 500 bison were slaughtered in 1988-89 north of Gardiner. The shooting stopped at 589 bison. The next year we lost 50% of our tourist trade. It will happen to us again. The media is here filming.
- Montana will be boycotted. The tourist economy is far greater than the cattle economy. It is Montana’s #1 business if you take out the subsidies.
- I am disturbed by the APHIS Gonacon program.
- I am disturbed by NPS and hoping for new rules and regulations more beneficial to bison in the next EIS.
- Nothing ever changes within the IBMP. This is not a place for change. This is simply a dead end.
- Brucellosis is a lie. It is a smokescreen. This is really about how will we kill more bison.
- You are bullies chasing and destroying families and cultures.
- Slaughter is a human choice that does not have to happen.
- Buffalo are life. Spend time with them on the land and listen to them. Lots of you aren’t ever out on the land.
- We have a very powerful friend with a powerful idea: if cows all went away we could still have jobs for the cowboys like dropping fences and shepherding bison.
- It has been 15 long years. Lots of you weren’t even here when this all started. My founding Partner Rosalie Little Thunder passed away this summer. She brought vision.
- This is a sacred animal. Never once have we talked about this being the last of their kind.
- ** The solution is simple—there are only two sets of 25 cattle and we simply need to fence them in or remove them. That would allow Native Americans to hunt but instead we just continue to show disrespect.
- Why is everything managed in defense of the cow? Aren’t we suppose to decrease invasive species on public lands like national forests?

- I wish we would listen to the wisdom of our first nations and give it as much credence as we give to MDOL.
- We better do it right in the new EIS or I will continue to be in your faces nonstop.
- I want to see the USFWS as a cooperating agency in the new EIS.
- ** I believe that habitat expansion is the key. We can move bison to lands managed by the USFWS, including the CMR and Red Rocks Wildlife Refuges.
- I was from Colorado where things seemed to work well except they didn't have wolves, bison, grizzlies and would not let them in. We have an opportunity in Montana with the IBMP to reconcile unfortunate attitudes toward wildlife elsewhere.
- APHIS reports will be posted online so that the public can get the information.
- I am a conservationist and a hunter. I have a serious problem with the current hunt as it is more of a slaughter than a fair chase hunt. We need the opportunity to broaden the landscape for hunters and bison. Also, we need to recognize there is a spiritual connection between the bison and the landscape.
- Hunters want to increase hunter opportunity.
- I am glad to hear about the idea of more cow tags. I would also like to see more tags for Montana hunters. It is part of our heritage just like it is part of the Native American's.
- ** Banff has information on the interplay of bison and herbivory.
- I am always amazed at these meetings by the diversity of cultures and beliefs.
- I raise cattle and feel attacked but realize that we all have different values. I think that it is great for us to respect each other and believe that MFWP is good at trying to get dialogue going.
- ** We have been talking about hunting season. In Oregon they change salmon fishing seasons on the fly, in reaction to harvest data. Why can't we do that here with the bison hunt?
- ** Yes, agreed to the idea of changing and improving habitat through plantings or fire.
- I like the idea of Gonacon. If we can decrease brucellosis, I see that as pure good.
- I really respect the tribes wanting to hunt the bison but we shouldn't devalue ship and slaughter because those bison are very important to the people that receive them.
- The hard part is tolerance. Not just to bison but other wildlife, too, like grizzlies.
- Speaking as a citizen of the USA, I want my grandkids to live in a world that makes sense.
- I can't understand using birth control on an animal when there are so few of them left. That just sounds crazy.
- The IBMP management plan is careless.
- There is a lack of science backing IBMP actions up. We know little about these animals. They have very low genetic diversity. We are not paying attention to if they will survive.
- The bison are crammed into small areas. They are inbreeding—you can see some have horns curling.
- Having bison on a ranch does not equal having wild bison.
- We are using careless tactics as we infect bison with dangerous chemicals. What are the long term effects? We don't know and that is careless.
- Out in the field we see MDOL throw rocks at bison and push mamas through the mud. We should treat living things better.
- I know this issue from time in the field. I have watched moms and calves grow and migrate. I am out there every day. We follow animals.
- I know public opinion. People love bison.
- Private property owners don't want cowboys on their land. We have seen people shoot paintballs and haze newborns.

** Final **

- I am a school teacher in New York City. When the kids ask me why do people want to hurt bison I don't know how to answer them and I wish I did.



Figure 6.—Bison figurine in West Yellowstone.

*** Meeting adjourned ***

Abbreviations

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