YELLOWSTONE NATIONAL PARK BISON

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS

OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

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March 20, 2007
U.S. House of Representatives
Subcommittee on National Parks, Forests and Public Lands
Committee on Natural Resources
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:01 a.m. in Room 1324, Longworth House Office Building, Hon. Raúl M. Grijalva [Chairman of the Subcommittee] presiding.

Present: Representatives Grijalva, Bishop, Heller, Inslee, Kind, and Rahall.

STATEMENT OF HON. RAÚL M. GRIJALVA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. GRIJALVA. The Subcommittee on National Parks, Forests and Public Lands will come to order. This is an oversight hearing on Yellowstone National Park Bison. First let me just say I am pleased to welcome my colleagues and our distinguished panelists to this oversight hearing on the Yellowstone Park Bison. Many of our witnesses have traveled great distances, and we appreciate their efforts.

It is a particular pleasure to welcome the Representative from Montana as well as the Governor of Montana. Welcome. Their passion and energy on behalf of their state are obvious, and their perspectives are certainly welcome today.

Management of national parks often raises complicated issues. Bison management in and around Yellowstone National Park, however, continues to be more complicated than most issues. It is the purpose of this oversight hearing, along with a GAO review requested by Chairman Rahall to explore the complexities of this issue so that we as policymakers can make informed decisions as we go forward. Ultimately our goal should be the same as those included in the interagency bison management plan when it was first adopted in 2000.

Any legitimate threat of disease must be managed effectively but of equal importance the slaughter of bison needs to stop. The management plan—as it has been implemented to date—appears to have achieved the former but not the latter. That is one change that needs to occur. Effective disease control and free-roaming bison are not mutually exclusive. Given the enormous scientific and

financial resources of the Departments of Interior and Agriculture, along with the resources and expertise of Montana, Wyoming and Idaho, I am confident that bison and cattle can be managed in a way that is not a death sentence for either species.

We look forward to our witnesses' insights regarding the challenges we face in achieving these goals, and I would now recognize Mr. Bishop for any opening statements he may have.

STATEMENT OF HON. ROB BISHOP, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH

Mr. BISHOP. Thank you, Mr. Chairman. I appreciate that. I have to admit with the myriad of troubles that are besetting the national parks and our forests and public lands, it is a bit unsettling that we are devoting time today to readdress an issue that has driven us much by politics as it is by science. As it pertains to the management in the past of bison in Yellowstone National Park, on several occasions members of the Resources Committee have sought to prohibit the National Park Service from actively managing the bison population in Yellowstone by offering limitation amendments—which is the absolutely worst form of legislative policy—on the "must pass" appropriations bill.

Even with that being said, I look forward to listening to today's witnesses. I appreciate Congressman Denny Rehberg being here. As a rancher and former member of this committee and a Representative of the State of Montana, he understands better than anyone in Washington this issue and impact of the policies which are being advocated by some of the witnesses here today will have on the agriculture-dependent communities in his district. If this Subcommittee is to give deference to anyone when it comes to public lands issues, it should be Congressman Rehberg.

It is also my privilege to welcome Dr. Charles Kay from Utah State University. Among other things his testimony notes the historical records of 20 different expeditions into Yellowstone between 1835 and 1876. These are the expeditions which reported seeing bison only three times, none of which were in the present day boundaries of the Park itself. Dr. Kay is a preeminent and well-recognized expert on the management issues impacting Yellowstone National Park and similar park property in Canada. He also happens to live in my district and work in my district which is why I have to be really nice to him. So I welcome Dr. Kay and thank him for being here.

I also appreciate Governor Schweitzer visiting us one more time. I certainly hope you have a good lieutenant Governor back there in Montana keeping the state running in your absence. I appreciate you being here. In fact, the last time you were here we noted how the western states—those 13 public land states in the west—have about 50 percent of their land owned by the Federal government.

I note that Montana has probably the best deal in the bunch. You have only 28 percent of your land owned by the Federal government as opposed to 70 in my state, 90 in Nevada. You know you have the better opportunity of funding your education, building your economy there. So I am going to be interested to see how you play this good hand that has been dealt to you up there in Montana as opposed to the rest of the west.

It is interesting to note that Yellowstone National Park comprises 2.2 million acres, and is larger than the combined land area of the entire states of Delaware and Rhode Island, and if that is not enough land area to manage the bison herd, then we are never going to find a solution. I fear the issue of bison leaving the Park is being used by some as a pretext to expand the Park, acquire additional Federal lands for habitat or control the already limited private property in the west.

Further, I can understand why the bison are leaving the Park. Since the reintroduction of the wolf in the Park, an animal which makes a pretty picture on the cover of brochures, but when they take down and devour an animal, it is a gruesome and brutal sight. If I were a bison, I would want to leave the Park too.

Mr. Chairman, I would hope that as part of today's hearing we will look at ways in which we address the management issues impacting Yellowstone National Park, such as controlling the bison herd at a manageable level, protecting the grazing rights of current permittees, assuring the multi use and accesses that are available. Hopefully we can also rediscover what worked historically in controlling the size of the herd and the control of the disease itself.

We should also touch on the issue of elk, equally problematic, and the issue of brucellosis control. We should not use this hearing to advocate views espoused by fringe groups but further we must not permit the bison herds of Yellowstone to jeopardize the livelihood of local ranchers. These ranchers rely on the public lands through grazing permits to sustain their livestock. Ranchers are the real environmentalists. They have to be to survive, and they may indeed—as one will testify—be the only link to open space preservation in the future. With that I thank you, Mr. Chairman. I look forward to the witnesses.

Mr. GRIJALVA. Thank you, Mr. Bishop. At this point let me turn to the Chairman of the Natural Resources Committee, Mr. Rahall, Mr. Chairman, for any opening comments he might have.

STATEMENT OF HON. NICK J. RAHALL, II, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WEST VIRGINIA

Mr. RAHALL. Thank you, Chairman Grijalva. I appreciate your having these hearings today and allowing me the opportunity to say a quick word. I believe we can all agree that the bison is a symbol of America. Like the monuments on our National Mall or like the dome of the Capitol, the bison is an American icon. These magnificent beasts are woven into the fabric of our culture, not to mention being sewn onto the fabric of every uniform worm by an employee of the Department of Interior.

After a century of wanton slaughter, we have a small herd in Yellowstone National Park, the last remaining example of the pure bred, free-roaming bison left in this country. Is it any wonder then that the American public periodically looks on in horror at footage of employees of the U.S. Department of Interior participating in the slaughter of Yellowstone bison?

The general public is under the impression that these animals are being sheltered and protected by the Federal government, not rounded up and shot, and the obvious question is why? Why the Department of Interior is murdering its beloved mascot? We are

told that it is due to the threat of disease. During the harsh winter months, bison migrate out of the Yellowstone National Park to lower elevations in a desperate attempt to avoid starving to death.

Once they leave the Park, we are told they can come into contact with cattle grazing on public and private land, and some of the bison may carry a disease which can be dangerous to cows. But here is the critical point. Here is the critical point. The transfer of this disease from bison to cattle has never happened in the wild. Has never happened in the wild. Never—and I rarely use that word never, if ever.

The slaughter of bison is not required in order to manage the threat of disease. Slaughter is not management. It is an approach from a bygone era, and has no place in a time of rapid scientific and economic progress. We are capable of more ingenuity and more compassion if we are willing to try. So that is why once again today we welcome the Governor of the State of Montana, Brian Schweitzer, before this committee, and I would say to my colleague, Mr. Bishop, I think he can do two things at once, and govern the state from here in Washington as effectively as back home on the home front, and from him I look forward to hearing bold initiatives to end the status quo.

Indeed during July of 2003, as has already been referenced in statements made, I offered an amendment on the House Floor to halt the National Park Service participation in the slaughter. It was narrowly defeated during one of those infamous votes under which the then Republican majority held the vote open long enough until enough arms could be twisted to change the initial outcome and to achieve the desired result of that majority.

That vote was a harbinger of what will come. The status quo is no longer sufficient. So I conclude by saying, Mr. Chairman, it is my hope that through this oversight hearing you have called today, along with the results of the GAO review that I requested, we will move on to a new path, a path that values both the bison and the cattle. Thank you.

Mr. GRIJALVA. Thank you, Mr. Chairman. Let me just remind our three panels that testimony is limited to five minutes. Any statement that you might have will be made part of the record in its entirety, and with that let me welcome our colleague, Mr. Rehberg. Congressman Rehberg, welcome, and if you would like to begin your testimony at this point.

STATEMENT OF HON. DENNIS REHBERG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MONTANA

Mr. REHBERG. I will, and thank you, Mr. Chairman, for giving me the opportunity once more to appear before your committee. If my leadership had given me the waiver that I had asked for, I would be sitting on the dais with you, and I would not have to keep asking permission to talk about the issues that are so very important to Montana. To Mr. Bishop, thank you as well for your kind remarks, and Mr. Rahall, thank you for giving me one more opportunity to come in and tell you why you are wrong.

I will suggest that the State of Montana is in good hands when Governor Schweitzer is here because his Lieutenant Governor is a Republican, and so we feel a lot more comfortable. Sometimes I feel

like I spend more time in Montana than he does, and he is in Washington more than I but we will move along to something that we think is very important in Montana.

I sometimes jokingly say in Montana, do you know why the Internet is so successful? Because the government has not figured out how to screw it up yet. If you mess with this memorandum of understanding, you will be screwing up a very complex management opportunity to eradicate brucellosis and do all the things that came together in a memorandum of understanding that was signed by many government entities in the year 2005.

What does the former Chairman of the Republican Party, Mark Racicot, Bruce Babbitt and Dan Glickman have in common? Probably not a lot but under the Clinton Administration, they finally came to a 20-year decision to try and end the bickering, try and end the lawsuits, try to end the emotional outbursts that occurred from time to time, sometimes semi-violent, by coming together with an understanding that something needed to be done to try and manage the situation having to do with the bison in Yellowstone Park.

Oftentimes I feel like there are those around the country that see Montana through the eyes of either "Blazing Saddles" or "A River Runs Through It" but I can tell you it is very difficult to manage natural resources, and as a result of that difficulty it is also very emotional. You get the polarization on both sides. That is what we had moving into the year 2000.

We had a lawsuit. We had a counter lawsuit. We had a counter counter lawsuit. We had threats of violence and guts being thrown on our former Governor, and ultimately we all came to a very emotional decision that it was time to lay those differences aside and come to an agreement. It was signed by Dan Glickman of the Department of Agriculture, Bruce Babbitt of the Department of Interior, and Mark Racicot, our Governor.

I am struck a little bit by the fact that missing from the panels discussing today are the Native Americans who were a major part of the decisions, and are a major part of the management opportunities. This memorandum, this understanding and this decision was a compromise that was agreed to by the Courts as a result of Court-appointed mediation. This was not something that was just thrown together to slaughter our bison.

What did it accomplish? It determined the size of the herd. Now I hate to tell you but when you get a male buffalo and a female buffalo together, you are going to have baby buffalo. It is just a fact of natural life. Ultimately you have to make the determination what is the carrying capacity for the betterment and the health of the Park? Ultimately you will have too many buffalo. There is no other way than to move those bison off that Park, and ultimately there is a limitation on how many buffalo that other tribes and entities can take. You are not going to end the slaughter for practical reasons, for natural reasons.

The second is defining a boundary line, making a determination where do we want to limit the opportunity or the ability for these bison to go? The third is public safety. Little known fact. In the Center for Disease Control, anthrax is number one. Brucellosis is

number two. It is called undulant fever in humans. You get it. You keep it. It never goes away.

Protection of private property. Fact of life: In America, private property does still matter in spite of the feeling of some people within the Federal government that it is just a temporary holding spot for Federal property or Federal purchase. Agency actions were supposed to have shown the eventual elimination of brucellosis in Yellowstone Park.

Unfortunately for us with the actions of the continuing resolution under the new Congress, one of the earmarks that was lost to us was the continuing vaccine research at Montana State University for brucellosis vaccine, something that I hope to try and rectify in this upcoming budgetary process. Protection of livestock. Make no mistake. Perhaps it has not been proven that a cow has aborted as a result of brucellosis but it is a fact they do. Because we are not out in nature, because we do not watch the connection between the cattle and the bison does not mean it does not exist. It is just that we have not seen it occur.

It does cause spontaneous abortion in cattle, and the brucellosis-free status of the State of Montana I cannot begin to tell you the economic devastation that would occur to our livestock industry, and to our economy, to the State of Montana, if we were to in any way, shape or form jeopardize our brucellosis-free status.

We had a problem in the year 1988 in Yellowstone Park. It was called the let-it-burn policy. It was a failed experiment by the Federal government to allow 75 percent of Yellowstone to burn. A similar failed policy would be a let-them-roam-free-outside-the-Park-in-a-diseased-state policy. It would be every bit as folly as the let-it-burn policy.

I have got an answer. Why do you not fix your herd? If you really want to do something for the bison, if it is the icon, if you want to wear it on your shoulder, if you want to think of Montana as the visions that you get with "A River Runs Through It," then do something about your herd.

Get in and fix it. Do not let diseased herds walk around the Park because you would not allow us as livestock producers to have infected herds in amongst your wildlife. You would not let us overgraze your park and your Federal properties. Where do we find the philosophy that allows the opportunity for your diseased herd to overgraze our park, your diseased herd to move into Montana, and I hope you will listen very seriously to the ideas that the Governor has.

My final point in this record of decision that was signed December 20, 2000. It suggests any actions of Congress not having the broad support of various agencies and parties could cause a major setback in the progress that has been made. This could have a devastating impact on Yellowstone buffalo herd.

Any actions this Congress decides to take to try and undo something that we think is technically sound and legally defensible will have a major impact, and this is where we have to decide, ladies and gentlemen, are we going to allow sound science to manage our parks or are we going to allow political science to manage our parks? I hope you find for the former. Thank you.

Mr. GRIJALVA. Thank you, Mr. Congressman. I appreciate that, and let me just begin with a couple of general questions, and you referenced the question that I am leading to is that you referenced the interagency bison management plan that was adopted in 2000, and the parties it appears to me clearly anticipated that much or even all the private land within the area covered by the plan would be acquired or at least any grazing on the land would be bought out by the winter of 2002, 2003.

Seven years later that has not happened, and just for my own edification, do you support that acquisition intent in the management plan or at least the acquisition of grazing rights so that the cattle would no longer be on the land right outside the Park?

Mr. REHBERG. I think first you must look at the management of the Park itself. Clearly as one of the people who does in fact do this for a living, I believe in herding, I in fact have a herd myself of 2,800 goats with a herder, and the reason I do that is so that I could adequately and efficiently move the herd around to where the grass is available, and adequately and efficiently move it around to where the water is available.

Now we are not going to go into wholesale water development within Yellowstone Park but I can tell you it is very poorly managed as far as the grazing components of those grazing animals, whether they are elk or bison. You do not have the ability in the wildlife situation to necessarily herd animals such as wolves and elk but it is a lot easier to have the ability to herd bison. I think you should actively look at that before you start the wholesale purchase of private property or the elimination from the grazing opportunities for those lands that surround the park.

Mr. GRIJALVA. Thank you. I appreciate that. Mr. Bishop, any questions or any other members of the Committee have any question for the Congressman? OK. Congressman, you are welcome to join us here at the dais for the rest of the hearing.

Mr. REHBERG. I will do that, and I thank you very much.

Mr. GRIJALVA. Call the next panel, please.

[Pause.]

Mr. GRIJALVA. Thank you very much, and let me begin this panel with our distinguished guest to provide his perspective to the Committee on this very important question, the Governor of the State of Montana, Governor Schweitzer. Please.

STATEMENT OF THE HON. BRIAN SCHWEITZER, GOVERNOR, STATE OF MONTANA

Governor SCHWEITZER. Mr. Chairman, Ranking Member Bishop, it is nice to ride with you on the airplane from Salt Lake City. As you know when you leave Montana, you either go through Salt Lake or Minneapolis, and Salt Lake is usually the way that I go. So we leave a little money behind.

Mr. BISHOP. We appreciate you coming through Salt Lake.

Governor SCHWEITZER. And Mr. Chairman Rahall, it is good to be back. Thank you for inviting me in.

Mr. RAHALL. We are working on bigger airports in West Virginia so you will be able to stop there.

Governor SCHWEITZER. Well there is a connection. I come before you not only as the Governor of Montana but the first cattleman

to be Governor of Montana since 1919. I come also as an agricultural scientist. There are a few principles at work here. The first principle is this. We in Montana do not intend to lose our brucellosis-free status. That is important to us.

Because of the management of wildlife in the greater Yellowstone area, both Wyoming and Idaho, our neighbors, have lost their brucellosis-free status during the last couple of years. Montana does not intend to join them. The current management plan assures that it is only a matter of time before we would lose our brucellosis-free status. I would agree with Congressman Rehberg that brucellosis can be transferred from bison to cattle. The bison after all managed to get brucellosis from cattle to begin with. So this disease will transfer back and forth.

I will just touch on the science that occurs in transferring the brucellosis. Some think of it as a venereal disease because there are abortions associated with it. It is not. When an animal has brucellosis and she gets the brucellosis at a young age, she will likely abort her first offspring before full maturity, maybe at five, six months.

That aborted fetus will lie on the ground or maybe the afterbirth. Another ruminant will come along and as cattle or sheep or goats or deer or antelope or elk are want to do, they will use their eyes and they will use their nose. They will look down. They will see something, and they will smell it. There is where the transmission occurs. If you have infected buffalo occupying the same space as livestock that are grazing, you will likely have a transmission at some period of time.

We have about 3,600 head of buffalo. I call them buffalo. You might call them bison. In Montana we use the terms interchangeably. Buffalo, 3,600 head of buffalo. Up to 40 percent of them have some level of brucellosis. They have a positive titer. It does not necessarily mean they have brucellosis but they have a positive titer. They would test positive for brucellosis.

So point one, we do not want to transfer brucellosis to Montana. We do not want our cattle to lose our brucellosis-free status. Point number two, you need to force the Department of Interior and the Department of Agriculture to work together. The Department of Interior has these buffalo in the Park who when we have tough winters move into Montana and put our cattle at risk. You have the Department of Livestock, USDA, through APHIS, tells us that if only two herds turn up positive for brucellosis the entire state would lose our brucellosis-free status.

Now, I have for you a map of the Yellowstone area, and the small areas where bison are want to move out to when they are starving to death. Now, just so you know the area is about 10,000 acres that the bison move into. Now, if you were to compare 10,000 acres to the 90 million acres plus that Montana has as a whole, that is a footprint approximately the size of New York City on the entire United States.

So we are placing the two-plus million head of cattle in Montana at risk of losing their brucellosis-free status over about 700 head of cattle that occupy this space some short periods during the year. There are only a few livestock producers who live in the area, who own cattle, and keep them for 12 months. One of the largest

producers—in fact the largest producer—is the Royal Teton Ranch outlined in the darkest orange. I think some of their representatives are here today.

We, at the State of Montana, are negotiating with them today to buy out the right to raise cattle, sheep or goats on this land. If they want to raise horses or mules, that is fine, and we would compensate them. One solution, one permanent solution, would be for this small area—these small footprints—this part of Montana which would be the equivalent of New York City on the footprint of the entire United States, would be for Congress once and for all to buy the rights from private landowners so that they can continue to raise horses or mules on that land but not raise cattle so that we do not have buffalo and cattle occupying the same space.

What we have been doing over the last numbers of years when buffalo leave the Park on the tough winters, we chase them back and forth, and you pay for it. About a million bucks a year to chase those starving buffalo back into the Park. We use snowmobiles. We use helicopters. We use folks on horses, and it does not make any sense. We have had buffalo on the same space in the same pasture with cattle during the last few years. That is a recipe for a wreck.

If you are not willing to buy out and pay for it, there is a second option you should consider, and that is to create a buffer zone around the Park where we would have 100 percent test of the cattle that enter and leave. If we have 100 percent test in this small area around the Park and one, two, three of those herds do turn up positive for brucellosis, all of the two million cattle in Montana would not be at risk. Only that small area.

Now, the third option is active management of the bison in the Park. Active management decreasing the numbers of bison or do exactly what this interagency bison management plan was supposed to do which gave no tools to eradicate brucellosis once and for all. You know Congressman Rehberg even mentioned about the plan, and you will hear from some other people who will say oh boy, do not depart from the plan. Well the plan said simply that the goal is to eradicate brucellosis. Well I am a cattleman. I know how to eradicate brucellosis. You round them all up. You test them. You slaughter the positives, and you vaccinate. That is the way you eradicate brucellosis.

We do not have the resolve to do that. There is nothing in the plan that would give us an opportunity to eradicate brucellosis. So barring the willingness of Congress to eradicate brucellosis and to do the actual things that you would need to do to eradicate brucellosis, give us the tools in Montana so that it makes sense for our cattle industry, so that it makes sense for the bison. Give them either a little more room to leave the Park or give us a buffer zone around or do your job and leave us alone.

Either have the Department of Interior work with the Department of Agriculture or give us real tools in Montana so that we do not lose our brucellosis-free status. Thank you.

[The prepared statement of Governor Schweitzer follows:]

Statement of The Honorable Brian Schweitzer,
Governor, State of Montana

Chairman Grijalva and Ranking Member Bishop, I thank you for inviting me to address this subcommittee, and affording me the opportunity to share my thoughts

about the management of Yellowstone National Park Bison. Few issues have been as contentious to Montanans as bison management near Yellowstone National Park. As the last vestiges of our Great Plains herds, Park bison are important to our heritage, and to the nation. Unfortunately, they also represent one of the few remaining reservoirs of brucellosis in the nation.

I have taken on this issue not because I have in mind a quick fix, or because I have all the answers, but because sustainable solutions are long overdue. I have hoped to refocus our collective attention.

The livestock industry in Montana and nationwide has gone to great lengths, at substantial costs, to eradicate brucellosis from cattle. Montana remains brucellosis-free, but in the last 2 years Idaho and Wyoming have both dealt with the loss of their brucellosis-free status. As a result, livestock producers in Wyoming and Idaho have been subject to additional time-consuming and costly measures when they ship cattle from their states. Recently Wyoming regained its status, but even as Idaho works to do the same, no clear plan exists to prevent a recurring situation, and it may be simply a matter of time before Montana loses its status.

My priority is to protect Montana's brucellosis-free status. Having been involved in the cattle industry my entire life, and particularly in the seed-stock business, I understand the intricacies of the disease and the necessity of remaining brucellosis-free.

Longstanding and conflicting policies at the U.S. Departments of Agriculture and Interior have caused the federal government to be less than helpful. Not only do Montana, Wyoming, and Idaho deal with the real threats of brucellosis to our cattle industry, but we often receive a black eye when we are forced to take management actions to prevent potential transmission of brucellosis when bison enter Montana.

From 1985 to 1990, Montana culled bison entering the state through a hunt that really more closely resembled a firing line, where government agents pointed out the bison to be shot. The public outcry led to a halt of bison hunting that lasted throughout the twelve years of the administrations of then Governors Marc Racicot and Judy Martz. The bison herd continued to grow, and subsequent management and legal actions led to a settlement with federal agencies that resulted in the current Interagency Bison Management Plan (IBMP). When the IBMP was crafted in the year 2000, about 2,500 bison occupied the Park. Last year—several mild winters later, and before the Park sent almost 1,000 animals to slaughter—the count was estimated at 4,900 bison. The population estimate now stands at 3,600 head.

The IBMP establishes zones on the north and west sides of the Park where bison are tolerated outside Park boundaries. The plan designates hazing, capture, testing, and slaughter as management tools when bison leave the Park. In recent years almost $1 million per year has been spent on these activities. The Plan also calls for the eradication of brucellosis when research someday provides the means to do so. Principally, however, the Plan calls for temporal and spatial separation of bison and cattle.

Plan proponents have tried to assure me that the IBMP protects Montana's brucellosis-free status, providing a sort of federal guarantee from USDA-APHIS. Unfortunately, the disease status activities in Wyoming and Idaho provide little in the way of comfort. The fact remains that Montana will lose its brucellosis-free status if two herds are found to be infected. In other words, loss of status is caused by infection, and is not prevented by the existence of a document.

On the ground, such assurance is far from secure. Bison can and have moved many miles into Montana overnight, presenting the possibility of commingling with cattle. The result is a situation where cattle and bison occupy the same space, at the same time. Additionally, when bison are captured in the Park, many are shipped live to Montana slaughterhouses hundreds of miles away. Possible roadway accidents, careless offal disposal methods, and tissues carried off by scavengers become a concern. From a risk management perspective, we must do better than the present Plan.

State veterinarians in the 19 western states agree. A year ago I received a resolution from their organization, the Western States Livestock Health Association. It advocates reducing commingling through spatial and temporal separation, quarantine measures if commingling occurs, and contemplates additional requirements and sanctions on the three states if their recommendations are not implemented.

Despite these facts, I still hear some in the livestock industry say we're doing enough to manage risk. Alternatively, they call simply for the eradication of brucellosis. Who can disagree? Eradication is a goal shared by every party interested in Park bison management. It is lauded—even demanded—as a solution, yet we lack an effective vaccine, and I have yet to see an eradication plan from the federal government.

The National Park Service today insists on minimal management of bison in the Park, despite a long history of intensive management activities within its boundaries, including captivity, feeding, live removals, lethal removals, and regulated hunts. Similarly, the USDA's Animal and Plant Health Inspection Service today insists on strict, state-wide application of its "two-herds-and-you're-out" brucellosis policy for the cattle industry in the three states that border the Park, even though the risk of transmission affects only a very small geographic region. This is despite the fact that USDA has historically allowed the use of smaller, regionalized management areas for disease control.

Past suggestions for bison management have included a test and slaughter program that would eradicate brucellosis in Park bison; a specially-managed hunt inside Park boundaries; creative fencing of Park boundaries. Each of these notions presents problems, and yet we have seen no forward-looking ideas from the federal government.

Hope for mild winters seems to be the only long range federal plan, along with the expensive and ongoing hazing, capture, testing, and slaughter actions when bison breach Park boundaries. Meanwhile, cattle producers pray for no more brucellosis transmissions or disease status downgrades from the federal government. But hopes and prayers do not constitute a plan.

Last July I sent a letter to USDA Secretary Johanns and Interior Secretary Kempthorne to encourage them to resolve their agencies' conflicting approaches, and to work with us to develop realistic and effective long-term management. Let's just say that the response was not overwhelming.

The State of Montana has begun to explore the elements of eventual solutions. For the first time in 15 years, in 2005 we conducted a public bison hunt. It was a fair-chase hunt. Big game herds across the West are managed through hunting, and it is a part of our heritage and tradition. The first Montanans hunted bison for at least 12,000 years, which is why 16 of the 140 hunting permits currently available go to Montana's Indian tribes. Our state joins Alaska, Arizona, South Dakota, Utah, and Wyoming in managing bison through hunting.

Montana's hunts over the last two years have been successful, but hunting is merely one of the tools available for bison management. It can be used even more effectively over time, given more experience and adequate area to maintain a fair-chase hunt.

To explore other solutions, I have begun meeting with affected landowners near the Park, agricultural and conservation organizations, and others interested in bison management. I have proposed ideas for maintaining better separation between bison and the approximately 700 units of cattle near the Park in order to protect the status of the 2.5 million head of cattle throughout the rest of the state.

One idea is the establishment of a small, specialized area near the Park where we would apply stricter management protocols for cattle—100% test in, 100% test out. In exchange, USDA-APHIS would agree that Montana would not lose its brucellosis-free status should two herds become infected inside that designated area. The intent is not to increase the area where bison may wander outside the Park, but instead to better manage cattle in the area, and to utilize geography to control bison from December to March, when they are commonly on the move. Beyond this area a "drop dead" zone would exist as it does now. Each spring, all bison would still be moved back into the Park.

Another idea is the negotiation of grazing leases with private landowners near the Park that compensate them for grazing only non-ruminant animals until brucellosis is eradicated—or even permanent purchase of grazing rights or other management agreements that landowners find reasonable. Whatever the mechanism, agreements would be voluntary, and the federal government would need to provide fair-plus compensation. The amount of private land involved likely would not exceed 9,000 or 10,000 acres. Montana has 94 million total acres, so we're talking about an area that makes up about one ten-thousandth of the land area of the state. For perspective, that is an area the size of New York City on a map of the lower 48 states. To these ends, we have been involved in productive negotiations with Royal Teton Ranch, the largest cattle operation on the north side of the Park.

An urgent necessity is the funding of further research into a more effective brucellosis vaccine, and into more effective vaccine delivery methods. The Park Service has recently completed studies confirming the efficacy of remote vaccine delivery, but vaccine effectiveness lags. RB51 is credited with 65-70% effectiveness in cattle. Novel vaccines exist, including "RB51-plus," developed at the Virginia-Maryland Regional College of Veterinary Medicine, and "Strain 82," developed at the All-Russian Veterinary Institute. USDA funding for the National Brucellosis Eradication Program should be prioritized for further research for bison, cattle, and elk. Ongoing quarantine studies should continue as well. But again, the federal government must

provide the resources necessary to dramatically speed up disease research and development.

There are almost certainly other good ideas. Just as I have proposed ideas for practical solutions to this seemingly intractable issue, I have invited others to do the same. I will continue to work with the livestock industry, conservationists, and the federal agencies that bear responsibility. We must provide real risk management for Montana's cattle industry and manage bison with the respect they deserve.

Mr. GRIJALVA. Thank you, Governor. Mr. Soukup, your testimony please.

STATEMENT OF MIKE SOUKUP, ASSOCIATE DIRECTOR, NATIONAL PARK SERVICE

Mr. SOUKUP. Mr. Chairman, members of the Subcommittee, thank you for the opportunity to appear before you today to present the Department of the Interior's views on Yellowstone National Park bison. Accompanying me today is Suzanne Lewis, superintendent of Yellowstone National Park. My testimony has been submitted so I will just offer a brief summary.

Bison are an integral part of a visitor's experience in the natural system of Yellowstone National Park. Today the Yellowstone bison herd is the nation's only continuously free-roaming herd, a small but precious genetically true remnant of the vast herds of bison that once roamed this continent. While many consider the bison emblematic of our nation's natural heritage, as a species it has not fared well.

From populations estimated in the tens of millions by the end of the 19th century, only 200 remain. Today evidence of cross breeding with cattle is common in the genetics of most domestic and many public herds. Cattle are also likely responsible for the transmission of the exotic disease brucellosis to bison, elk and other wildlife. Brucella bordis, the causative bacteria in brucellosis, was first observed in 1917, and it has been a vaccine problem ever since.

The dilemma of the largest free-roaming bison herd that carries a contagious disease in a landscape where working ranches graze their cattle has not led to many instances of finding common ground or reasonable compromise over the decades. Perhaps the best example of cooperation—although precipitated by a lawsuit—has been the interagency bison management plan signed by the Governor of the State of Montana and the Secretaries of Interior and Agriculture in December 2000.

This plan was based on nearly a decade of negotiations and a long, but necessary search for a common scientifically based understanding of the issue. The plan includes a step-wise approach and a commitment to adaptive management that allows for plan improvement resulting from observation, experience and new information. Key provisions include an overall commitment to the long-term preservation of this free-roaming herd, as well as protection of the brucellosis-free status of the State of Montana.

Major elements are cooperation, management of diseased risk, increasing tolerance of bison outside the park, acquisition of grazing rights, management of disease risk, increasing tolerance outside the Park when and where feasible, and significantly emphasis on the development of tools such as effective vaccines and remote

delivery mechanisms that can provide for the eventual elimination of brucellosis from Yellowstone bison in a fashion that is fully protective of this national treasure.

All sides in this issue voice concerns about this plan. Progress is being made in some areas certainly faster than others. For example, it has been difficult for the National Park Service to participate when bison are sent to slaughter in harsh winters when many bison leave the Park. Nevertheless, Yellowstone National Park has participated responsibly in carrying out this plan with confidence that the Yellowstone bison population remains robust.

The Department of the Interior remains convinced that these lethal actions can be adaptively minimized through greater opportunities for spacial and temporal separation of cattle and bison and eventually rendered unnecessary. With the development of proper tools that is underway, it may be possible to then plan for the eventual elimination of this nonnative disease and the risk of its transmission without compromising the nature and future of the Yellowstone bison.

Mr. Chairman, that concludes my remarks. Superintendent Lewis and I will be pleased to respond to the Subcommittee's questions. Thank you.

[The prepared statement of Mr. Soukup follows:]

Statement of Michael Soukup, Associate Director, Natural Resource Stewardship and Science, National Park Service, U.S. Department of the Interior

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to appear before you today to present the Department of the Interior's views on Yellowstone National Park Bison. Accompanying me today is Suzanne Lewis, Superintendent of Yellowstone National Park.

In December 2000, after nearly a decade of negotiation and planning, the Secretaries of Agriculture and Interior, and the Governor of Montana signed Records of Decision to implement the Interagency Bison Management Plan (IBMP) for the State of Montana and Yellowstone National Park. The IBMP directs the National Park Service (NPS), Gallatin National Forest, and the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) to cooperate with the State of Montana in implementing management operations to preserve the largest wild, free-ranging population of bison while minimizing the risk of brucellosis disease transmission between bison and cattle. Brucellosis is a contagious bacterial disease that can infect domestic animals, wildlife, and humans. Brucellosis was first found in the Yellowstone bison herd in 1917 and was most likely acquired from domestic cattle. Potential transmission of brucellosis back to cattle from bison has been a concern of the cattle industry, and the Montana cattle industry has worked hard to maintain brucellosis-free status for its cattle herds.

Through various adaptive management techniques, the IBMP is designed to progress through a series of management steps that initially allow only bison that test negative for brucellosis on winter range areas outside the national park, but will eventually allow limited numbers of any bison on public land within management areas covered by the IBMP during winter when cattle are not present.

The agency partners conducted reviews of the IBMP in 2005, 2006, and 2007. These reviews have identified and implemented several adaptive management adjustments to the IBMP including increased tolerance for bull bison outside the park, and increased flexibility of bison hazing. Additionally, a bison vaccination program has been initiated for captured bison.

The NPS is currently developing an Environmental Impact Statement for comprehensive remote bison vaccination that will not require capture of bison. Spatial and temporal separation of bison and cattle has been strengthened by improved interagency cooperation during hazing and capture operations. The State of Montana is collaborating with APHIS to develop protocols for certifying some Yellowstone bison as brucellosis free so they can be used to improve the genetics in other federal and State bison populations. In 2005, Montana reauthorized a public hunt of Yellowstone bison on lands adjacent to the park.

When the IBMP went into effect in 2000, the bison population was approximately 2,500 animals. Currently, the bison population is estimated at approximately 3,600 animals. During winter 2005-2006, the bison population was reduced from 4,900 to 3,400 when, after the park conducted numerous non-lethal hazing operations along the northern boundary, and when hazing became infeasible and unsafe to prevent bison from leaving the park's northern boundary and entering private lands occupied by cattle, the park captured 1,249 bison. Of these, 87 were provided for approved research, 305 were released back into the park, 849 were consigned to slaughter, and there were 8 mortalities inside the capture facility. As happens every winter, many additional bison die of natural causes including predation. Sending so many bison to slaughter under the IBMP was difficult for the Park Service, but capture of these bison was necessary to prevent commingling and probable disease transmission to cattle grazing on lands adjacent to parks.

In an effort to progress to the later, more flexible bison management stages established under the IBMP, the NPS continues to support the leadership of the State of Montana to conduct negotiations that could lead to acquisition of cattle grazing rights on lands adjacent to the park and thus provide additional habitat for bison outside the park. The Royal Teton Ranch (RTR), USDA Forest Service, and the Montana Department of Fish, Wildlife and Parks are currently in renewed discussions about new opportunities for grazing rights acquisitions on part or all of RTR lands. While the NPS is not a principal party in these negotiations, at the request of the State of Montana, park staff participated in discussions about the potential value of all or part of these lands as bison habitat. The RTR retains grazing rights, where they currently graze approximately 120 head of cattle, on their private property adjacent to Yellowstone National Park as provided for under the 1999 land acquisition and conservation easement agreement.

The NPS continues to meet with IBMP partners, private landowners, and the State of Montana to seek opportunities to advance these discussions, and to identify and implement progressive and more bison-friendly adaptive management approaches.

Bison management actions under the IBMP have not had an adverse impact on long-term bison population viability. This bison population exhibits a robust, long-term population growth of 8-13 percent per year. The IBMP includes bison population management objectives that are intended to ensure long-term conservation of this unique bison population and their significant genetic variation. A decision by the NPS to capture bison only arises when all other options are exhausted. Any subsequent decision to consign captured bison to slaughter is very difficult, and is influenced by an interest in minimizing captivity and human-dependence of these wild bison as well as the requirements of the IBMP. Despite the periodic capture and removal of some bison, the NPS believes that the IBMP is a successful long-term strategy for safeguarding and protecting the Yellowstone bison population.

Mr. Chairman, this concludes my prepared remarks. We would be pleased to answer any questions you or other members of the Subcommittee may have.

Mr. GRIJALVA. Thank you, sir. With that, Deputy Administrator Clifford please.

STATEMENT OF JOHN CLIFFORD, DVM, DEPUTY ADMINISTRATOR, ANIMAL AND PLANET HEALTH INSPECTION SERVICE

Mr. CLIFFORD. Thank you, Mr. Chairman. My name is Dr. John Clifford, and I am the Deputy Administrator for Veterinary Services with the Department of Agriculture's Animal and Plant Health Inspection Service. I also serve as the Department's chief veterinary officer for animal health. My agency's role in the management of Yellowstone National Park's bison herd is to prevent the transmission of brucellosis, a serious bacterial disease of animals and a threat to the health of livestock in the greater Yellowstone area.

USDA has been working for many years with the state and industry cooperators to eradicate brucellosis from domestic cattle and bison herds. Our cooperative efforts have been highly successful. Only two states, Idaho and Texas, are not classified as free of the

disease in domestic cattle and bison herds. The greater Yellowstone area is the last known reservoir of brucellosis in wild elk and bison in the United States. Surveillance testing of wild bison from the Yellowstone herd indicates approximately 50 percent of the bison in the Park have been exposed to and are potentially infected with the disease.

This disease reservoir poses a risk to cattle that graze on lands adjacent to the Park. There have been published reports and scientifically documented cases of bison transmitting brucellosis to cattle under both range and experimental conditions. Transmission can occur through direct contact between infected bison and non-infected cattle and if they are allowed to commingle on lands adjacent to the Park.

APHIS works with the states around the GYA, and the cattle industry, the Department of Interior's National Park Service, and Fish and Wildlife Services, to address the risks of brucellosis transmission from wildlife leaving the Park to cattle that graze in surrounding areas. Our sister agency within USDA, the U.S. Forest Service, also plays a key role in managing the public lands on the Gallatin National Forest adjacent to Yellowstone National Park in Montana.

The current interagency bison management plan carefully balances the need to preserve the Yellowstone bison herd with the need to prevent the spread of brucellosis from bison to cattle. The plan relies on spacial and temporal separation of bison from cattle that graze in areas surrounding the Park. As bison leave the Park, management zones are used to monitor their movement and ensure that the bison and cattle do not commingle.

Depending on the bison population size, there is an array of risk management options to prevent transmission from brucellosis from bison to cattle during the winter. USDA and the Department of Interior believe the next step is develop a long-term plan for the elimination of brucellosis from GYA. We are in the early stages of this process but fully acknowledge that any disease elimination plan must maintain the wild and free-roaming bison and elk herds in the Park.

We intend for this plan to be developed by disease and wildlife management experts and to include public input. Once brucellosis is eliminated from the GYA, bison and elk can roam more freely without the need for brucellosis intervention strategies. USDA and DOI will soon send a letter to our GYABC partners enclosing a copy of an updated memorandum of understanding for signature that commits the partners to working together to develop this disease elimination plan for GYA.

In the near term, management of the risk of disease transmission from wildlife to livestock is a prudent approach to maintaining the brucellosis-free status of the GYA states, and the long-term elimination of brucellosis from GYA wildlife along with the protection of elk and bison populations will be our goal. Thank you for the opportunity to testify this morning, and joining me at the table will be Ms. Becky Heath, Forest Supervisor for the Gallatin National Forest in Montana. We would be pleased to answer your questions.

[The prepared statement of Mr. Clifford follows:]

Statement of Dr. John Clifford, Deputy Administrator for Veterinary Services, Animal & Plant Health Inspection Service (APHIS), U.S. Department of Agriculture

Thank you for the opportunity to be here this morning. My name is Dr. John Clifford, and I am Deputy Administrator for Veterinary Services with the Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS). In this position, I also serve as USDA's Chief Veterinary Officer.

My Agency's role in the management of Yellowstone National Park's bison herd is to prevent the transmission of brucellosis, a serious bacterial disease of animals, and a threat to the health of livestock in the Greater Yellowstone area. I'd like to begin my testimony by providing information on the disease and the longstanding efforts of USDA, States, industry, and other cooperators to eliminate it from cattle in the United States.

Background on Brucellosis and the Cooperative State-Federal Eradication Program

USDA has been working with State and industry cooperators to eradicate brucellosis for many years. The disease affects many species of animals, including humans, and is caused by the bacteria Brucella abortus. Cattle, bison, and elk are especially susceptible to the disease.

The Brucellosis Eradication Program was launched on a national scale in 1934, and a cooperative effort among the Federal Government, States, and livestock producers began in 1954. All States participate in APHIS' Cooperative State-Federal Brucellosis Eradication Program and are assigned a brucellosis classification by APHIS. These classifications—Class Free, Class A, Class B, and Class C—are based on herd prevalence rates for the disease and require various levels of movement restrictions and surveillance activities. Most importantly to cattle producers, restrictions on moving cattle interstate become less stringent as a State approaches or achieves Class Free classification.

The program, which is predicated on cattle slaughter surveillance and milk ring test surveillance, has been highly effective. In 1956, 124,000 affected herds were found in the United States as a result of testing. By 1992, this number had dropped to 700, and as of March 13, 2007, no known affected domestic cattle or bison herds remained in the entire United States

Annual brucellosis-related losses due to aborted fetuses, reduced breeding efficiency, and lowered milk production have decreased from more than $400 million in 1952 to almost zero today. Currently 48 States, Puerto Rico, and the U.S. Virgin Islands are free of brucellosis. Idaho and Texas—with herd infection rates of less than 0.1 percent in each State—both hold Class A classification. States with Class A classification must demonstrate there are no infected herds within a two year period to obtain Free classification status. Idaho and Texas are currently in the qualifying stage for Free classification. USDA is hopeful the Cooperative State-Federal Brucellosis Eradication Program will achieve the goal of nationwide elimination of this disease from domestic cattle and domestic bison within the next year.

Brucellosis in the Greater Yellowstone Area (GYA)

In 2004, Wyoming lost its brucellosis Class-free classification due to the detection of four brucellosis-affected cattle herds that were most likely infected by elk from the GYA. After additional surveillance testing and epidemiological investigation, APHIS approved Wyoming's Class Free classification in September 2006.

In November 2005, two cattle herds in Idaho were found infected with brucellosis and the State subsequently lost its Class Free classification. Again, these infections are also most likely linked epidemiologically to brucellosis-infected elk from the GYA. Idaho will be eligible to regain Class Free classification after completing a 12-consecutive month period of finding no additional brucellosis-affected herds, provided all other brucellosis Class Free requirements have been met.

Clearly, these recent situations involving brucellosis in Wyoming and Idaho illustrate that the GYA is the last known reservoir of brucellosis in wild elk and/or wild bison in the United States. Surveillance testing of wild bison from the Yellowstone National Park herd indicates that approximately 50 percent of the bison in the Park have been exposed to and are potentially infected with the disease. Also, all elk (100,000) and bison (5,000) across the 20,000,000 acre GYA are know to be exposed at variable levels to brucellosis. There have also been published reports and scientifically documented cases of bison transmitting brucellosis to cattle under both range and experimental conditions. It is generally accepted that transmission can occur through direct contact between infected bison and non-infected cattle if they are allowed to co-mingle on lands adjacent to the Park. Transmission could also occur if

susceptible animals come into contact with aborted fetuses and afterbirth that carry the disease.

Addressing Brucellosis in the GYA

As the Agency responsible for protecting the U.S. cattle industry from serious diseases like brucellosis, APHIS is responsible for working with the GYA States, the cattle industry, and the National Park Service to address the risk of brucellosis transmission from wildlife leaving the Park to cattle that graze in surrounding areas. Our sister agency within USDA, the U.S. Forest Service, also plays a key role in managing the public lands on the Gallatin National Forest, adjacent to Yellowstone National Park in Montana.

We acknowledge that this is a complex issue on a number of fronts. For our part in the Greater Yellowstone Interagency Brucellosis Committee (GYIBC), USDA has pledged its full cooperation to protect the economic viability of the livestock industry by eliminating brucellosis while sustaining populations of free-ranging wild elk and bison in the GYA.

The only way we can accomplish these dual goals is to continue cooperating with Federal and State agencies in the management of the livestock and wild bison and elk in the GYA. We recognize the risk this disease poses to livestock and wildlife, as well as the financial hardship it has caused producers. Eliminating brucellosis in the GYA is of vitally important to achieving our ultimate, shared goal—eradicating the disease throughout the entire United States.

Current Interagency Bison Management Plan

The current Interagency Bison Management Plan (IBMP) that the cooperating partners operate under carefully balances the need to preserve the Yellowstone bison herd with the need to prevent the spread of brucellosis from bison to cattle that graze on lands surrounding the Park.

The bison management plan relies on the spatial and temporal separation of bison from cattle that graze in areas surrounding the Park. As bison leave the Park, management zones are used to monitor the movement of bison and ensure that bison and cattle do not commingle. Depending on the bison population size, there is an array of risk management options to prevent transmission of brucellosis from bison to cattle during the winter, including non-lethal hazing, shooting, capture, testing, and shipment to slaughter.

Any bison that remain outside the Park's boundaries in the spring are hazed back into the Park, captured or removed. As an additional disease safeguard, cattle are not allowed to graze on public land outside the Park until a sufficient amount of time has passed after the bison leave to ensure that the brucellosis bacteria is no longer viable in the environment. However, at this time, the Gallatin National Forest has vacated all grazing allotments located in the bison Management Zone next to the Park.

While it is unfortunate that National Park Service employees must sometimes remove bison that have left Yellowstone National Park, we must emphasize that these operations are targeted and only one component of a much larger effort to preserve the health and viability of the entire bison herd. In this regard, all of the Federal bison management actions are in accordance with the provisions of the bison management plan and the requirements of Federal law; the management plan also includes a commitment to treating bison in a humane fashion during hazing, capture, and other handling.

The Roles of the U.S. Forest Service Under the Interagency Bison Management Plan

As a full partner in the Interagency Bison Management Plan, USDA's Forest Service provides these main functions:

- Management of wildlife habitat on National Forest System lands (NFS) outside of the Park in Montana;
- Law enforcement support to the counties and the State of Montana during bison management operations outside the Park; and
- Administration of a special use permit for the State's (Department of Livestock) bison capture facility located in the Horse Butte area, west of the Park.

Under federal laws and the Land Management Plan, the Gallatin National Forest lands are managed for multiple use purposes which include livestock grazing. Federal grazing permits are issued to private producers. However, given the Forest Service management emphasis to provide for wildlife habitat, all Gallatin National Forest cattle grazing allotments located in the Bison Management Zone next to the Park have been held vacant for 3-10 years. Holding these allotments vacant from cattle grazing fulfills one of the objectives in the Interagency Bison Management Plan, which calls for creating spatial and temporal separation of bison and cattle.

Outside of Yellowstone Park, but within the Bison Management Zone closest to the Park, domestic cattle graze on approximately 6,000 acres of private ranch lands on the west and north sides of the Park; outside of this Zone there are numerous private cattle ranches as well as several active grazing allotments on NFS lands.

Royal Teton Ranch Land Conservation Project

The 12,000-acre Royal Teton Ranch ("RTR") owned by the Church Universal and Triumphant, is located north of Yellowstone National Park but within the Gallatin National Forest proclamation boundary. This property provides critical wildlife migration and winter range habitat for numerous species, including grizzly bear, Yellowstone cutthroat trout, elk, bighorn sheep, antelope, bison and mule deer.

In 1997, the Forest Service partnered with the Rocky Mountain Elk Foundation to develop a multi-component agreement with the Church that included fee purchases, conservation easements and a long-term right of first refusal for potential acquisition of the remaining RTR lands.

The stated purposes of the 1997 RTR project were to:

- Conserve critical wildlife habitat north of Yellowstone Park for numerous wildlife species.
- Improve public access for recreational opportunities, and
- Protect the geothermal resources on the RTR lands.

The Rocky Mountain Elk Foundation, Forest Service, and Department of the Interior (DOI) successfully completed the RTR fee and easement purchases in 1999 using $6.7 million in LWCF funds appropriated to the Forest Service and $6.3 million in LWCF funds appropriated to DOI. In the project, about 5,300 acres of RTR lands were acquired by fee purchases and another 1,500 acres were protected through a conservation easement. In addition, the Church granted a conservation easement prohibiting development of geothermal resources on the entire ranch. All the acquired RTR lands and easements are held and managed by the Forest Service.

All cattle grazing allotments located on the lands acquired by the United States in this purchase are held vacant. The Church waived their federal grazing permit back to the Gallatin National Forest in 2004, and this land is also held vacant.

From the project onset (1999), the Forest Service, the Rocky Mountain Elk Foundation and conservation partners all clearly recognized that the RTR project would be a positive step for wildlife conservation, but that it would not, by itself, fully resolve the bison management issues in that area. Acquisition of the RTR lands and conservation easements do, in fact, protect some of the historic migratory and winter range habitat for bison, and have kept future options open. However, nearly half of the RTR ranch remains private land, and the Church has elected to continue to graze its cattle on those remaining private lands.

New Draft Memorandum of Understanding Among the GYIBC Partners

As I mentioned a moment ago, the current bison management plan is a tool for preventing the spread of brucellosis from bison to cattle on grazing lands in Montana adjacent to Yellowstone National Park. USDA and the Department of the Interior (DOI) believe the next step is to develop a long-term plan for the elimination of brucellosis from the GYA. We are in the initial stages of this process, but fully acknowledge that any disease elimination plan must maintain the wild and free-roaming bison and elk herds in the Park.

Our concept is for this plan to be developed by disease and wildlife management experts and to include public input. Once brucellosis is eliminated from the Greater Yellowstone Area, bison and elk can roam more freely without the need for brucellosis intervention strategies. The animals may also be moved to other parks and tribal lands as desired by wildlife managers and other interested parties.

In this regard, USDA and the U.S. Department of the Interior (DOI) agreed upon a revised GYIBC memorandum of understanding (MOU) after the previous MOU expired. In May 2005, the Federal agencies presented the draft to Montana, Idaho, and Wyoming for consideration. Finalizing the updated version of the MOU originally presented in 2005 (the updated version reflects Idaho's loss of brucellosis Class-Free status earlier this year, as well as Wyoming's September 2006 upgrade to Class-Free status) is a priority for USDA. To that end, USDA and DOI will soon send out a letter enclosing a copy of the updated version of the MOU and urging participating States to sign the document.

The draft we will soon share with our State partners apprises the Governors that we will take into account their views, as well as the input of all our stakeholders, as we move forward with finalizing the MOU. I'd like to note, however, that we strongly believe that we need to develop a disease elimination plan that also contains effective means of managing the bison herd. In the near term, management of the risk of disease transmission from wildlife to livestock is a prudent approach to maintaining the brucellosis-free status of the GYA states. In the long term, elimi-

nation of brucellosis from GYA wildlife concurrent with protection of the elk and bison populations will require continued development and implementation of best management practices, vaccines, vaccine delivery systems, and diagnostic techniques.

We know that finalizing this MOU is an important priority for all parties. Implementing the final MOU—in full cooperation with our Federal and State partners—is an integral part of our efforts to eliminate brucellosis from elk and bison herds in the GYA and to prevent reintroduction of this destructive disease into cattle herds in surrounding States.

Conclusion

Mr. Chairman, while eliminating brucellosis from elk and bison herds in the GYA—and preventing reintroduction of the disease into those herds—is challenging, it is not an impossible task. It will require the use of a number of innovative and time-proven disease elimination and management tools and the cooperation of our State, Federal, and industry partners.

As I indicated previously, this is a goal we are striving very hard to achieve. I believe finalization of a new GYIBC MOU, one that reflects the need for all parties to come together to develop a long-term plan for eliminating brucellosis from the GYA ecosystem, is the most important step we can take in the short-term to help accomplish our goals. Thank you again for the opportunity to testify this morning, and I am happy to answer any questions you may have.

Mr. GRIJALVA. Thank you, sir. Let me now call on Ms. Robin Nazzaro for your testimony, comments.

STATEMENT OF ROBIN NAZZARO, DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, GOVERNMENT ACCOUNTABILITY OFFICE

Ms. NAZZARO. Thank you, Mr. Chairman and members of the Committee. My name is Robin Nazzaro, Director, National Resources and Environment with the Government Accountability Office. I am pleased to be here today to discuss the management of bison in the Yellowstone National Park area. To facilitate my discussion, I will use a series of maps that will be displayed on the monitors and have been made available to you in a supplemental package with my statement.

The first map shows the location of Yellowstone National Park overlapping three states—Idaho, Montana and Wyoming. As we have heard, this is home to a herd of about 3,600 free-roaming bison, some of which routinely attempt to migrate out of the Park in the winter, particularly on the northern and western boundaries as depicted by the red arrows on the map. Livestock owners and public officials in the states bordering the Park have concerns about the bison leaving the Park because many are infected with brucellosis.

The State of Montana and its livestock industry in particular have been active in protecting the state's brucellosis-free status by advocating for limits on bison migration. These efforts have been opposed by advocacy groups working to expand bison habitat and protect the free, wild roaming character of the bison and who assert that there has never been a documented case of brucellosis transmission from bison to cattle in the wild.

The many years of public controversy over the management of the bison in the area have ensued and has resulted in competing concerns. In an effort to address these concerns, as we heard, the agencies in December 2000 developed a three-step plan for managing the bison on the northern and western sides of the Park.

The stated purpose of this interagency bison management plan is to maintain the wild, free-ranging population of bison and address the risk of brucellosis transmission to protect the economic interest and viability of the livestock industry in Montana.

My testimony summarizes GAO's preliminary observations on the progress made in implementing this plan and the extent to which bison have access to lands north of the Park acquired with $13 million in Federal funds. This work was requested by the Chairman of the House Committee on Natural Resources and Congressman Maurice Hinchey. More than six years after approving the plan, the five Federal and state partner agencies remain in step one of the plan because cattle continue to graze on certain private lands in the area represented on the map by the grey box.

These lands are owned by the Church Universal and Triumphant. A key condition for the partner agencies progressing further under the plan requires that cattle no longer graze in the winter on these lands to minimize the risk of brucellosis transmission from bison to cattle.

The agencies had anticipated meeting this condition by the winter of 2002, 2003. While a prior attempt by Interior to acquire grazing rights on some of these lands was unsuccessful, Montana's Department of Fish, Wildlife and Parks is currently negotiating with the Church to acquire the grazing rights. Until this condition is met, bison will not be allowed to roam freely beyond the Park's northern border, west of the Yellowstone River.

Concurrent with the development of the bison management strategy in the late 1990s, the Forest Service was pursuing the acquisition of certain lands and conservation easements from the Church to expand critical habitat for a variety of wildlife species, to protect geothermal resources and improve recreational access. Map number two, an enlargement of the grey box I referred to earlier, shows the land ownership prior to the Forest Service's land conservation project acquisitions. The Forest Service lands are shaded green. Park lands are yellow. The grey areas are owned by the Church, and the white areas are other privately owned lands.

The land acquisition occurred in two phases. Map three depicts the first phase in which the Forest Service spent $6.5 million to purchase 3,107 acres, most of which appears on the map in dark green with diagonal lines. A 640 acre portion located further north and west does not appear on the map. Map four depicts the phase two purchase of an additional 2,156 acres shown in dark green, and a 1,508 acre conservation easement shown as the darker grey dotted area. Under the easement, numerous development activities such as the construction of commercial facilities and roads are prohibited.

However, the owners specifically retained the right to graze domestic cattle, except between October 15 and June 1 of each calendar year, the time of the year that bison would typically be migrating through the area. The owner currently grazes cattle throughout the year on portions of its remaining 6,000 acres which can be seen on map five in the grey areas. Map five shows the current land ownership north of the Park.

While the Forest Service viewed this project as a logical extension of past conservation efforts, the value of this acquisition for

the Yellowstone bison herd is minimal because no bison will be allowed to access these private lands, including those covered by the conservation easement, until cattle no longer graze there. Mr. Chairman, this concludes my statement. I would be pleased to answer any questions that you or members of the Subcommittee may have.

[The prepared statement of Ms. Nazzaro follows:]

Statement of Robin M. Nazzaro, Director, Natural Resources and Environment, U.S. Government Accountability Office

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss our preliminary work on issues related to managing bison in the Yellowstone National Park area. Bison lived in this area long before the park was established in 1872, and have been under some form of human management since the early 1900s. In 1901, after years of hunting and poaching, the Yellowstone herd had been reduced to about 25 bison. For nearly the next six decades, bison management in the park emphasized reestablishing the bison herd and controlling the size of the population. Through a policy of natural regulation adopted by the park in the 1960s, the bison population has increased, and about 3,600 bison roam the park and surrounding areas today.

Brucellosis—a contagious bacterial disease that can infect domestic animals, wildlife, and humans—was first found in the Yellowstone bison herd in 1917 and is believed to have been transmitted from livestock. Livestock owners and public officials in the states bordering the park are concerned about brucellosis in the bison herd because of the risk of bison transmitting the disease back to cattle and the economic impact such an occurrence could have on the livestock industry. The state of Montana and its livestock industry, in particular, have been active in protecting the brucellosis-free status that the state has held since 1985 by advocating for limits on bison migration. These efforts have been opposed by advocacy groups working to expand bison habitat and protect the wild free-roaming character of the bison, and who assert that there has never been a documented case of brucellosis transmission from bison to cattle in the wild. Many years of public controversy over the management of bison in the Yellowstone National Park area have ensued as a result of these competing concerns.

In an effort to address these concerns in the early 1990s, the Department of the Interior's (Interior's) National Park Service, the Department of Agriculture's (USDA's) Animal and Plant Health Inspection Service and Forest Service, and Montana's Departments of Livestock and Fish, Wildlife and Parks agreed to develop a joint long-term bison management strategy. This joint planning effort ultimately resulted in a three-step, Interagency Bison Management Plan (IBMP) that was agreed upon by the five federal and state partner agencies in December 2000. Concurrent with the development of a bison management strategy, the Forest Service was also pursuing the acquisition of certain private lands and conservation easements near the northern boundary of the park to expand critical migration and winter range habitat for a variety of wildlife species, protect geothermal resources, and improve recreational access.

My testimony today summarizes work performed to date that GAO began in mid-January 2007 at the request of the Chairman of the House Committee on Natural Resources and Congressman Maurice D. Hinchey. GAO previously reported on the bison management issue and development of the IBMP in the 1990s. A list of related GAO products is provided in appendix I. Our current work is focused on determining: (1) the progress that has been made in implementing the IBMP and the associated costs and challenges; (2) what lands and easements north of Yellowstone National Park, acquired for $13 million in federal funds, have been made available to bison and other wildlife; and (3) what advances have been made in developing a brucellosis vaccine and remote delivery method for bison. To begin addressing these objectives, we visited the Yellowstone National Park area to attend an interagency sponsored public meeting on the IBMP, tour the bison management areas near Yellowstone National Park, interview federal and state agency officials as well as members of interested stakeholder groups, and review relevant documentation. We have conducted our work to date in accordance with generally accepted government auditing standards.

Over the next several weeks, we will continue to collect and analyze information to refine our approach for completing the review. To date, our efforts have focused

mostly on the first two broad objectives. Thus, my remarks today will provide our preliminary findings on the first two objectives.

Summary

In summary, more than 6 years after approving the IBMP, the five federal and state partnering agencies remain in step one of the three-step plan because cattle continue to graze on certain private lands. A key condition for the partner agencies progressing further under the plan requires that cattle no longer graze in the winter on certain private lands adjacent to the north boundary of Yellowstone National Park and west of the Yellowstone River to minimize the risk of brucellosis transmission from bison to cattle. The agencies anticipated meeting this condition by the winter of 2002/2003. Until this condition is met, bison will not be allowed to roam freely beyond the park's northern border, west of the Yellowstone River. The Forest Service has been successful in purchasing certain private lands and continues its vacancy of national forest grazing allotments in the area; however, the partner agencies have yet to acquire cattle grazing rights on other private lands adjacent to the north boundary of Yellowstone National Park and west of the Yellowstone River. While a prior attempt by Interior was unsuccessful, Montana's Department of Fish, Wildlife and Parks is currently negotiating with the private land owner to acquire these grazing rights.

Yellowstone bison have limited access to the lands and conservation easement that federal agencies acquired north of the park. In 1998 and 1999, as part of a larger conservation effort to provide habitat for a variety of wildlife species, protect geothermal resources, and improve recreational access, federal agencies spent nearly $13 million to acquire 5,263 acres and a conservation easement on 1,508 acres of private lands north of the park's border, lands towards which bison frequently attempt to migrate for suitable winter range. While the conservation easement prohibits development, such as the construction of commercial facilities and roads, on the private land, the land owner retained cattle grazing rights. The Yellowstone bison's access to these lands will remain limited until cattle no longer graze on the easement and other private lands in the area.

Background

Yellowstone National Park is at the center of about 20 million acres of publicly and privately owned land, overlapping three states—Idaho, Montana, and Wyoming. This area is commonly called the greater Yellowstone area or ecosystem and is home to numerous species of wildlife, including the largest concentration of free-roaming bison in the United States. Bison are considered an essential component of this ecosystem because they contribute to the biological, ecological, cultural, and aesthetic purposes of the park. However, because the bison are naturally migratory animals, they seasonally attempt to migrate out of the park in search of suitable winter range.

The rate of exposure to brucellosis in Yellowstone bison is currently estimated at about 50 percent. Transmission of brucellosis from bison to cattle has been documented under experimental conditions, but not in the wild. Scientists and researchers disagree about the factors that influence the risk of wild bison transmitting brucellosis to domestic cattle and are unable to quantify the risk. Consequently, the IBMP partner agencies are working to identify risk factors that affect the likelihood of transmission, such as the persistence of the brucellosis-causing bacteria in the environment and the proximity of bison to cattle, and are attempting to limit these risk factors using various management actions.

The National Park Service first proposed a program to control bison at the boundary of Yellowstone National Park in response to livestock industry concerns over the potential transmission of brucellosis to cattle in 1968. Over the next two decades, concerns continued over bison leaving the park boundaries, particularly after Montana's livestock industry was certified brucellosis-free in 1985. In July 1990, the National Park Service, Forest Service, and Montana's Department of Fish, Wildlife and Parks formed an interagency team to examine various alternatives for the long-term management of the Yellowstone bison herd. Later, the interagency team was expanded to include USDA's Animal and Plant Health Inspection Service and the Montana Department of Livestock. In 1998, USDA and Interior jointly released a draft environmental impact statement (EIS) analyzing several proposed alternatives for long-term bison management and issued a final EIS in August 2000. In December 2000, the interagency team agreed upon federal and state records of decision detailing the long-term management approach for the Yellowstone bison herd, commonly referred to as the IBMP.

The IBMP is a three-step plan for managing bison on the northern and western sides of Yellowstone National Park, areas to which bison typically attempt to migrate for suitable winter range. The stated purpose of the IBMP is to:

> "maintain a wild, free-ranging population of bison and address the risk of brucellosis transmission to protect the economic interest and viability of the livestock industry in Montana."

Although managing the risk of brucellosis transmission from bison to cattle is at the heart of the IBMP, the plan does not seek to eliminate brucellosis in bison. The plan instead aims to create and maintain a spatial and temporal separation between bison and cattle sufficient to minimize the risk of brucellosis transmission. In addition, the plan allows for the partner agencies to make adaptive management changes as better information becomes available through scientific research and operational experience.

Under step one of the plan, bison are generally restricted to areas within or just beyond the park's northern and western boundaries. Bison attempting to leave the park are herded back to the park. When attempts to herd the bison back to the park are repeatedly unsuccessful, the bison are captured or lethally removed. Generally, captured bison are tested for brucellosis exposure.[1] Those that test positive are sent to slaughter, and eligible bison—calves and yearlings that test negative for brucellosis exposure—are vaccinated. Regardless of vaccination-eligibility, partner agency officials may take a variety of actions with captured bison that test negative including, temporarily holding them in the capture facility for release back into the park or removing them for research. In order to progress to step two, cattle can no longer graze in the winter on certain private lands north of Yellowstone National Park and west of the Yellowstone River. Step two, which the partner agencies expected to reach by the winter of 2002/2003, would use the same management methods on bison attempting to leave the park as in step one, with one exception—a limited number of bison, up to a maximum of 100, that test negative for brucellosis exposure would be allowed to roam in specific areas outside the park. Finally, step three would allow a limited number of untested bison, up to a maximum of 100, to roam in specific areas outside the park when certain conditions are met. These conditions include determining an adequate temporal separation period, gaining sufficient experience in managing bison in the bison management areas, and initiating an effective vaccination program using a remote delivery system for eligible bison inside the park. The partner agencies anticipated reaching this step on the northern boundary in the winter of 2005/2006 and the western boundary in the winter of 2003/2004.

In 1997, as part of a larger land conservation effort in the greater Yellowstone area, the Forest Service partnered with the Rocky Mountain Elk Foundation—a nonprofit organization dedicated to ensuring the future of elk, other wildlife and their habitat—to develop a Royal Teton Ranch (RTR) land conservation project. The ranch is owned by and serves as the international headquarters for the Church Universal and Triumphant, Inc. (the Church)—a multi-faceted spiritual organization. It is adjacent to the northern boundary of Yellowstone National Park and is almost completely surrounded by Gallatin National Forest lands. The overall purpose of the conservation project was to preserve critical wildlife migration and winter range habitat for a variety of species, protect geothermal resources, and improve recreational access. The project included several acquisitions from the Church, including the purchase of land and a wildlife conservation easement, a land-for-land exchange, and other special provisions such as a long-term right of first refusal for the Rocky Mountain Elk Foundation to purchase remaining RTR lands. The project was funded using fiscal years 1998 and 1999 Land and Water Conservation Fund appropriations totaling $13 million.[2]

Implementation of the IBMP Remains in Step One Because Cattle Continue to Graze on RTR Lands

Implementation of the IBMP remains in step one because cattle continue to graze on RTR lands north of Yellowstone National Park and west of the Yellowstone River. All Forest Service cattle grazing allotments on its lands near the park are held vacant, and neither these lands nor those acquired from the Church are occupied by cattle. The one remaining step to achieve the condition of cattle no longer grazing in this area is for the partner agencies to acquire livestock grazing rights on the remaining private RTR lands. Until cattle no longer graze on these lands, no bison will be allowed to roam beyond the park's northern border, and the agencies will not be able to proceed further under the IBMP.

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[1] If the Yellowstone bison herd exceeds a target population size of 3,000 bison as set forth in the IBMP, other management actions, such as removing the captured bison to quarantine or slaughter, may be taken to reduce the size of the herd.

[2] The Land and Water Conservation Fund Act of 1965 was enacted to help preserve, develop, and assure access to outdoor recreation resources. Among other purposes, appropriations from the fund may be used for federal acquisition of land and waters and interests therein. Pub. L. No. 88-578, 78 Stat. 897. 16 U.S.C. § 460l-4, et seq.

Although unsuccessful, Interior attempted to acquire livestock grazing rights on the remaining RTR lands in August 1999. The Church and Interior had signed an agreement giving Interior the option to purchase the livestock grazing rights, contingent upon a federally approved appraisal of the value of the grazing rights and fair compensation to the Church for forfeiture of this right. The appraisal was completed and submitted for federal review in November 1999. In a March 2000 letter to the Church, Interior stated that the federal process for reviewing the appraisal was incomplete and terminated the option to purchase the rights. As a result, the Church continues to exercise its right to graze cattle on the RTR lands adjacent to the north boundary of the park, and the agencies continue operating under step one of the IBMP.

More recently, the Montana Department of Fish, Wildlife and Parks has re-engaged Church officials in discussions regarding a lease arrangement for Church-owned livestock grazing rights on the private RTR lands. Given the confidential and evolving nature of these negotiations, specific details about funding sources or the provisions being discussed, including the length of the lease and other potential conditions related to bison management, are not yet available.

Although the agencies continue to operate under step one of the plan, they reported several accomplishments in their September 2005 Status Review of Adaptive Management Elements for 2000-2005. These accomplishments included updating interagency field operating procedures, vacating national forest cattle allotments within the bison management areas, and conducting initial scientific studies regarding the persistence of the brucellosis-causing bacteria in the environment.

Federal Land and Easement Acquisitions Sought to Provide Critical Habitat for Many Species, But Bison Access to These Lands Remains Limited

The lands and conservation easement acquired by the federal government through the RTR land conservation project sought to provide critical habitat for a variety of wildlife species including bighorn sheep, antelope, elk, mule deer, bison, grizzly bear, and Yellowstone cutthroat trout; however, the value of this acquisition for the Yellowstone bison herd is minimal because bison access to these lands remains limited. The Forest Service viewed the land conservation project as a logical extension of past wildlife habitat acquisitions in the northern Yellowstone region. While the Forest Service recognized bison as one of the migrating species that might use the habitat and noted that these acquisitions could improve the flexibility of future bison management, the project was not principally directed at addressing bison management issues.

Through the RTR land conservation project, the federal government acquired from the Church a total of 5,263 acres of land and a 1,508-acre conservation easement using $13 million in Land and Water Conservation Fund appropriations.[3] As funding became available and as detailed agreements could be reached with the Church, the following two phases were completed. In Phase I, the Forest Service used $6.5 million of its Fiscal Year 1999 Land and Water Conservation Fund appropriation to purchase Church-owned lands totaling 3,107 acres in June and December 1998 and February 1999. Of these lands, 2,316 acres were RTR lands, 640 acres were lands that provided strategic public access to other Gallatin National Forest lands, and 151 acres were an in-holding in the Absaroka Beartooth Wilderness area.

In Phase II, BLM provided $6.3 million of its Fiscal Year 1998 Land and Water Conservation Fund appropriations for the purchase of an additional 2,156 acres of RTR lands and a 1,508-acre conservation easement on the Devil's Slide area of the RTR property in August 1999. In a December 1998 letter to the Secretary of the Interior from the Chairs and Ranking Minority Members of the House and Senate Committees on Appropriations, certain conditions were placed on the use of these funds. The letter stated that "the funds for phase two should only be allocated by the agencies when the records of decision for the 'Environmental Impact Statement for the Interagency Bison Management Plan for the State of Montana and Yellowstone National Park' are signed and implemented." The letter also stated that the Forest Service and Interior were to continue to consult with and gain the written approval of the governor of Montana regarding the terms of the conservation easement. Under the easement, numerous development activities, including the construction of commercial facilities and road, are prohibited. However, the Church specifically retained the right to graze domestic cattle in accordance with a grazing management plan that was to be reviewed and approved by the Church and the Forest Service. The Church's grazing management plan was completed in December

[3] The Forest Service and the Church chose not to complete the land-for-land exchanges proposed in the conservation project.

2002, and the Forest Service determined in February 2003 that it was consistent with the terms of the conservation easement. The Church currently grazes cattle throughout the year on portions of its remaining 6,000 acres; however, as stipulated in the conservation easement and incorporated in the grazing management plan, no livestock can use any of the 1,508 acres covered by the easement between October 15 and June 1 of each calendar year, the time of year that bison would typically be migrating through the area.

While purchased for wildlife habitat, geothermal resources, and recreational access purposes, the federally acquired lands and conservation easement have been of limited benefit to the Yellowstone bison. As previously noted, under the IBMP, until cattle no longer graze on private RTR lands north of the park and west of the Yellowstone River, no bison are allowed to migrate onto these private lands and the partner agencies are responsible for assuring that the bison remain within the park boundary.

Mr. Chairman, this concludes my prepared statement. Because we are in the very early stages of our work, we have no conclusions to offer at this time regarding these bison management issues. We will continue our review and plan to issue a report near the end of this year. I would be pleased to answer any questions that you or other Members of the Subcommittee may have at this time.

GAO Contacts and Staff Acknowledgments

For further information on this testimony, please contact me at (202) 512-3841 or nazzaror@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. David P. Bixler, Assistant Director; Sandra Kerr; Diane Lund; and Jamie Meuwissen made key contributions to this statement.

Related GAO Products

Wildlife Management: Negotiations on a Long-Term Plan for Managing Yellowstone Bison Still Ongoing. GAO/RCED-00-7. Washington, D.C.: November 1999.

Wildlife Management: Issues Concerning the Management of Bison and Elk Herds in Yellowstone National Park. GAO/T-RCED-97-200. Washington, D.C.: July 1997.

Wildlife Management: Many Issues Unresolved in Yellowstone Bison-Cattle Brucellosis Conflict. GAO/RCED-93-2. Washington, D.C.: October 1992.

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Mr. GRIJALVA. Thank you. Mr. Soukup and Dr. Clifford, if the people you indicated want to join you at the table, this would be the appropriate time to do so. While that is occurring, let me begin with a question that the Governor referenced in his comments, and that is the question is what is the current status of negotiations between the state and the owners of the Royal Teton Ranch and

the other part of that question is, has the Federal government through the appropriate agencies been participating in those discussions? Governor?

Governor SCHWEITZER. As has been suggested, there is an ongoing negotiation with the Royal Teton Ranch. Almost all real estate deals start with about six or eight no's before you get to a yes. We are probably in the fourth or fifth no right now on our way to a yes. So until you have a yes, until you have a deal there is really nothing to talk about but I am confident that there is a willingness on both sides to move toward a permanent easement that would remove cattle, sheep and goats from that property so that if bison do leave—and they do leave during the tough winters—that there would be a temporal space where we would not have cattle and bison occupying the same space.

This is only a beginning. They are the largest cattle raiser in the area. They are one of the few ranches that keep cattle during an entire 12-month period. If you look at the map in the west Yellowstone area, there are no cattle that stay there through the winter months. The snow is just too deep. They take too much snow. There are a couple of other operators in the RTR area but they are the predominant operator.

Mr. GRIJALVA. Thank you, Governor. Let me just a quick question for Dr. Clifford. We heard as part of the testimony that the implementation of the management plan there is an attendant cost of about a million dollars a year that was discussed, and in terms of the inspection service, what is the yearly cost of working and implementing that management plan agreement? Do you have a figure?

Mr. CLIFFORD. We actually through Congress and actually through earmarks in 2006 provided $277,000 to the State of Idaho, $980,800 to the State of Montana and $277,000 to the State of Wyoming.

Mr. GRIJALVA. That is that yearly allocation?

Mr. CLIFFORD. That was in 2006. In 2007, our line item was reduced by that amount from 2006 of a total of $10.3 million to $8.9 million.

Mr. GRIJALVA. Thank you very much. Ms. Nazzaro, when do you estimate that the review would be completed and what point are we in that review process just as a general point of information?

Ms. NAZZARO. At this point, we have not negotiated a final product or the issuance date of that product. The original request letter from Mr. Rahall and Mr. Hinchey asked us to look at the progress in implementing the plan, the interagency bison management plan, as well as associated costs and challenges, to identify the lands that were acquired for the $13 million in Federal funds, and what advances had been made in developing the brucellosis vaccine and remote delivery method.

To date, we have focused primarily on the progress in implementing the plan and what was acquired for the Federal funds. At this point, we toured the bison management area in Yellowstone. We attended an interagency meeting sponsored by the joint agencies and have interviewed a number of state and Federal officials as well as interested stakeholder groups and obtained relevant information.

We are in what we call the design phase. So we are trying to determine what information is available, how difficult is it to obtain, and what we will do then at that point is negotiate with the staff on a timeframe and a product.

Mr. GRIJALVA. Thank you very much. And one last question for Mr. Soukup and Superintendent Lewis if appropriate. It is a general question. Why do bison leave the Park? The written testimony by Dr. Kay, who will be testifying later, argues that they leave because the Park is overgrazed. First of all, is that why they leave? And if that were true, would they not leave all year round as opposed to just in the winter if it is overgrazed? General response to that.

Ms. LEWIS. Thank you very much. The bison leave the Park, as they have for centuries, in search of food outside the Park because their winter range inside the Park is covered with snow. So they are doing what they have done for centuries. They move to lower elevation during the winter months where there is a greater opportunity for forage for them but it is not because the Park is overgrazed. It is because it is winter, and the ground is covered with snow, and in many locations it is covered with deep snow.

Mr. GRIJALVA. Any comments, Mr. Soukup?

Mr. SOUKUP. I would just add to that that there is fairly good science available that indicates that the bison herd is nowhere near the carrying capacity of the range. Numbers in the literature, over five to 7,500. So we do not believe it is overgrazing but it is a long-held migration that bison do in response to the conditions in the winter.

Mr. GRIJALVA. Governor, did you want to make a comment?

Governor SCHWEITZER. Well I think there is an interaction. It is true the tougher the winter the more bison leave the Park. That is clear. But it is also true that the more bison we have in the Park the more likely they are to leave during the winter. They will scratch around and get to some feed, and they hang out around the hot pots.

Any of you that would like to go in and watch the buffalo during the winter, if you go to some of the hot spots in the Park, it kind of looks like a feedlot because they hang around those warm areas, and they graze right around those areas. The question is how many bison would we have to reduce the number to that they would stay in the Park five out of six years? There is probably no number, even down to 50 head, that would keep them in the park every winter but how about a five out of six? A six out of seven?

I hear up to 7,000 head in the Park. I am a rancher. I go down to the Park every once in awhile, and I know that if you do not push them up into the high country, move them around like—I wanted to call you Denny—but it is Congressman Rehberg back here, right? Like he said, if you do not have some way of moving them around, they are going to hang around where it is easy, and so it might be theoretically that 7,000 could run there but I can tell you with 3,600 and the number of elk that we have sharing the space with them you do not have to drive around much in the Park to see that it is grazed a little bit more than most of the ranches in Montana.

Mr. GRIJALVA. Thank you for your responses to the questions. With that, let me turn to Ranking Member Mr. Bishop for any questions he might have.

Mr. BISHOP. Thank you again. It may be Denny for you. He makes me call him sir. Director Soukup, if I could ask you a couple of questions. I understand that the brucellosis in Idaho and Wyoming was not caused by buffalo. It was caused by elk. Is the elk herd in the Park, Yellowstone Park, brucellosis-free? Whomever wants to answer.

Mr. SOUKUP. It is my understanding that there is brucellosis at a very small incidence rate in the Park. The incidence rate for elk are enormously high in those areas around the feedlots, and especially I think in Idaho and Wyoming feedlots. It is where the highest ratio is.

Mr. BISHOP. Was I accurate in my original assumption that Idaho and Wyoming lost—and Wyoming regained—their brucellosis-free based on contact with elk and not with bison?

Mr. SOUKUP. Yes, that is correct.

Mr. BISHOP. All right. And the Governor made a couple of really good points there. If the issue, Director Soukup, was a free-range for bison or a brucellosis-free herd, which is the higher value? Brucellosis-free herd or range for bison, which would be a higher value?

Mr. SOUKUP. I believe it would be our position that the free-roaming herd can be made brucellosis-free over time with the appropriate——

Mr. BISHOP. That is not what I asked. Which is the higher value?

Mr. SOUKUP. We believe maintaining the free-roaming herd is the higher value.

Mr. BISHOP. Over having a herd that is brucellosis-free?

Mr. SOUKUP. Yes.

Mr. BISHOP. OK. Can I ask you what you consider to be the ultimate size of the herd that should be in Yellowstone Park?

Mr. SOUKUP. We believe that the herd will be regulated by natural conditions that until it gets up to 7,500 we do not think there is even an issue about reaching the carrying capacity.

Mr. BISHOP. Has there ever been a historic time in the Park where it has been as high as 7,500?

Mr. SOUKUP. No.

Mr. BISHOP. And if they are going to self-regulate, you assume that the wolf and other predators are going to regulate that size?

Mr. SOUKUP. Well the primary regulator that we have seen in the past has been the harsh winters. We know that the wolf is starting to be a factor in that some of the packs are feeding and a couple of them are feeding solely on bison. So there will be some impact from the wolf reintroduction but we believe that the harsh winters are a major factor.

Mr. BISHOP. I guess what you ought to do is convince the wolves that you know bison is a leaner meat than the cows around there, and therefore their cholesterol would go down if they attack more. I do have a problem in realizing or thinking that either a wolf devouring a bison or starvation of a bison is the most humane way of managing a herd, but if that is your position that is your position. In 1934, the Federal government had a brucellosis eradication

program that was successful. What were the techniques that were used in that program?

Ms. LEWIS. You are referring to a program in Yellowstone National Park?

Mr. BISHOP. Yes.

Ms. LEWIS. OK. At that time it was test and slaughter.

Mr. BISHOP. And it worked.

Ms. LEWIS. No.

Mr. BISHOP. Let me get the next question. In 1932, the Park had a boundary adjustment. How many acres were added in that time to the boundary?

Ms. LEWIS. I am going to estimate that I think that it was around 8,000 acres, and you are referring to the north end of the Park, outside the north end around today what is the community of Gardner, Montana.

Mr. BISHOP. All right. I thank you because I did not know exactly where that was. I appreciate that. Can I ask that Dr. Clifford from APHIS? As I understand it, brucellosis vaccines that we have right now are around 75 percent effective in their rate of controlling the disease. Is that an accurate statement?

Mr. CLIFFORD. I think you have to look at the particular species that you are referring to. With the particular vaccine that we use today and we are doing research to try to develop better vaccines, you can reduce the amount of abortions in bison but you do not really reduce that much maternal transmission. So the cows would still get the disease but you certainly can reduce the amount of abortion which will therefore reduce the amount of the bacteria in the environment, and therefore reduce the possibility of spread.

Mr. BISHOP. What I think you are telling me is that we do not have a vaccine that is 100 percent yet.

Mr. CLIFFORD. No, sir.

Mr. BISHOP. We have to use some other mechanism.

Mr. CLIFFORD. We do not have a vaccine that is 100 percent.

Mr. BISHOP. But I am assuming we are working to try and develop that?

Mr. CLIFFORD. We are trying to develop a better vaccine.

Mr. BISHOP. I have 12 seconds to do this. Ms. Nazzaro, when you come out with your report—which you have not done yet—are you going to consider the issue of elk as well as bison in your report?

Ms. NAZZARO. What issue? As far as the transmission of brucellosis?

Mr. BISHOP. Yes, you have it.

Ms. NAZZARO. That had not been originally covered under the scope.

Mr. BISHOP. If we were to do——

Ms. NAZZARO. I am not quite sure what the issue would be.

Mr. BISHOP. Considering what happened in Wyoming and Idaho out of elk, if we were to do a report that did not consider both elk and bison as far as the transfer of brucellosis, that is really kind of a halfway approach to it or a halfway report, is it not?

Ms. NAZZARO. I think we could certainly mention the fact that you know that there has been transmission. I know in our testimony we are mentioning that there has not been transmission from the bison to the cattle in the wild. You know we did not go that

far in the testimony but I would think we would want to give that context that you mentioned certainly.

Mr. BISHOP. I think it would be wise. I apologize for going over my time.

Mr. GRIJALVA. Thank you, Mr. Bishop. Let me turn for any questions that Chairman Rahall may have.

Mr. RAHALL. Thank you, Mr. Chairman. Governor, let me ask you the first question, and I would certainly agree with you that the existing regime or the status quo does not bode well for keeping Montana cattle disease-free while at the same time maintaining the integrity of the Yellowstone bison herd, and you mentioned in your testimony or rather I guess yes, you did, that on average the National Park Service is spending a million dollars annually, is that correct?

Governor SCHWEITZER. That is my understanding, and I think we heard from Dr. Clifford that in 2006 nearly another million bucks was spent by APHIS.

Mr. RAHALL. That is what I was going to add. So we are taking it up to well over $2.4 million as a cost to the Federal government currently. So I guess I would ask you a further question. What would you estimate the buyouts to be that you discussed as one of the tools that you would need to properly protect your cattle?

Governor SCHWEITZER. Well maybe four or five times that annual investment. In other words, it could be in a range from $5 to $10 million, depending on how much we negotiated, on how much of that private land, and what the actual cost would be. Bottom line is you have nailed it, Mr. Chairman. It is much cheaper to take the long goal, get a permanent solution, than it is to pay a couple of million dollars a year to slaughter bison, to round them up, to use snowmobiles and helicopters, to chase them back and forth.

We do not have a long-term solution. The Federal government is just throwing a bunch of money away in the greater Yellowstone area with the plan that we have right now. The plan is not working. It is not mitigating the management of brucellosis. We need to be realistic and find a solution that ends with Montana not losing our brucellosis-free status as has occurred with our neighbors.

Mr. RAHALL. And saving the taxpayers money as well.

Governor SCHWEITZER. Well we always like it when Congress sends a few more dollars to Montana but in this particular case I think it would be better to leave the dollars in Washington, D.C. and have a permanent solution for bison management that does not end with Montana losing its brucellosis-free status.

Mr. RAHALL. Thank you. Any of the other panel which to comment on that?

Ms. NAZZARO. Well we have not pulled together all of the cost figures yet but I think you do need to realize that there will be ongoing monitoring so there will still need to be some cost associated with the bison management. That will be an ongoing program you know regardless of whether you move forward in acquiring additional lands for the bison.

Mr. RAHALL. And will those costs be a part of your upcoming report?

Ms. NAZZARO. Yes.

Mr. RAHALL. I appreciate it. Appreciate each of you for the job you do, and Ms. Nazzaro, it is good to see you again before our Committee.

Ms. NAZZARO. Thank you, sir.

Mr. RAHALL. Thank you, Mr. Chairman.

Mr. GRIJALVA. Thank you, Mr. Rahall. Let me turn for any questions to Mr. Heller.

Mr. HELLER. Thank you, Mr. Chairman. Governor, it is good to see you again. Glad to have you back. I guess I am a little confused on your testimony, and maybe you can clarify. I am trying to figure out whether you are for active management of brucellosis or you are actually for expanding the size of the Park. What is the long-term answer to this in your opinion?

Governor SCHWEITZER. The former, not the latter. I have not advocated increasing the size of the Park nor am I advocating for increasing the size of the land that the bison occupy when they leave the Park. What I am advocating for is number one and the best solution would be for Congress to give the tools to Yellowstone National Park to actively manage the bison to eradicate brucellosis. Now I want to be honest with you here.

There are some folks that when it comes right down to it that are in the livestock business in Montana that would not necessarily appreciate that solution because you see if the bison population in Montana were brucellosis-free, then they would become a free-ranging, wild game species. They would work their way down the Madison and the Yellowstone. They would run down the streets of Bozeman. They would be standing in the middle of the interstate. They would be stopping trains.

They would be running through fences across eastern Montana, and so you see there will be some folks who tell you that the most important thing we need to do is eradicate brucellosis but when it comes right down to having the tools to eradicate brucellosis, they know that ultimately if the wild, free-ranging herd has brucellosis eradicated then there will be virtually no limitations other than hunting to the size of the population of the bison herd in Montana.

Mr. HELLER. Just one follow-up. Do you not have a current problem with the elk herds? In other words, are they not then able to—they are free-roaming—they have the same issues?

Governor SCHWEITZER. In Wyoming in particular, they winter feed. They feed hay to their elk population. They congregate them, and their herd of elk have brucellosis incidence of some 30, 40 percent. Idaho has a limited amount of winter feeding, and I am proud to say in Montana we do not winter feed our elk. The number of elk that we have survive because they have the skills to find their own grass and make their way around.

Our incidence of brucellosis is around 1.8 percent in the elk herd in the greater Yellowstone area. So by not congregating the elk in a wild management system in Montana, to this point, we have managed to check the growth of brucellosis. Thank you.

Mr. HELLER. Thank you, Governor. I yield back my time.

Mr. GRIJALVA. Thank you. Let me turn to Mr. Kind for any questions.

Mr. KIND. Thank you, Mr. Chairman. I appreciate a chance to have this important hearing today, and I want to welcome Super-

intendent Lewis back to the Committee here in Washington. I had the pleasure to go out and visit beautiful Yellowstone last August and received an excellent briefing from her and her staff on a whole host of issues, including this one, and I would really commend the people at Yellowstone Park for their management of this issue, trying to be a good neighbor, while at the same time trying to be the proper steward of this incredibly important resource that we have which is attacking us as we speak apparently. We have a free-roaming herd behind the witnesses today.

But I want to thank all the witnesses for your testimony. Governor, you too. I think you have shed some light on some various aspects of this issue that I think the Committee will have to seriously consider, and we would like to follow up with you in regards to the outreach you are doing with the private landowners in regards to a possible buyout program, what it would take, whether there is interest even in going down that path, because it certainly seems one way of being able to contain what I think is a very manageable issue at this point.

And I understand in your testimony today that you really have not been able to calculate an approximate cost as far as a buyout plan, is that correct? You have not reached that level of detail yet?

Governor SCHWEITZER. Well I can give you the background math. In the west Yellowstone area, the area that is represented on this map in this area, since there is not a single operator who owns the land and raises cattle, we had one operator that was from Idaho that sold his land, then it is just a question of finances for these folks. They are private landowners.

Mr. KIND. Right.

Governor SCHWEITZER. There are cattle that are brought in for a few months during the summer. The total numbers are around 500, 600 head for a three or four-month period. They pay about 20 to $25 per cow and calf per month. You can do the math. We give them a little more than that and tell them they can raise horses and mules. So you can do that math. And in the Gardner area, the numbers are probably about 250 to 300 that are there permanently, times 12 months, times that 20, 25 bucks. There is your math.

There will be those in the livestock industry who say, well this is just the nose under the camel's tent. These are people who are just trying to push livestock people off of their land. No, I am a rancher. I have made a living in the livestock business. I can tell you this though, we will not allow a footprint the size of New York City on the map of the United States, this small area, to put our entire billion dollar livestock industry at risk in Montana. It makes sense for us to be proactive, to work with these private landowners, to compensate them a market value, and allow them to continue to raise horses and mules.

Mr. KIND. Right. Now it is my understanding in part of the briefing I received last summer is that a lot of the movement of the buffalo is dependent on winter conditions. In some winters you are going to have a large exodus or a larger exodus, and I think this most recent winter the numbers have been relatively low, is that correct?

Ms. LEWIS. We have had bison move this winter but not in large numbers. We have not captured any bison this winter but we probably had more than 500 events where we are hazing every two days, every three days. Approximately about 150 head of bison were moving around the north boundary of the Park. As of last night, there were no bison on the boundary on the west side of the Park, no bison on the boundary of the north side of the Park. We have been experiencing very warm temperatures over the last two weeks. Green up is starting a little bit earlier, and again the bison turn and begin to move back into the Park.

Mr. KIND. Ms. Nazzaro, I think I was walking in, in the middle of your response, but is it my understanding, based on your testimony, that GAO does not have purview of looking at the possibility of a buyout plan given the audit that you are doing now with the bison management plan? You are not looking into a buyout proposal?

Ms. NAZZARO. We are looking at the various costs associated with the current operations but no, we are not looking at what this additional buyout could cost. That is possibly something if we talk options down the road as to we would want to include the cost of those various options. So I could see us getting into it. It is not specifically prescribed, if you will, and that is why I say when we are in the design phase we try to go in and try to ascertain what are the issues, what are some potential solutions, and then we go back and talk with our clients and suggest possibly expanding the audit. Of course it always depends on their timeframes and you know the resources we have available.

Mr. KIND. Governor, one final question. What would be the economic impact on your state if you lose brucellosis-free status?

Governor SCHWEITZER. Montana has some of the greatest numbers of purebred cattle of any state in the union, whether that be Angus or Limousin or Charolais or the business that I have been in, the simmental business. We export semen and frozen embryos and cattle all over the world. You can go to Argentina, go to a ranch and ask them you know tell me about the genetics of your angus cattle, and they will start ticking off names of bulls that were bred in Montana.

So we have a billion dollar cattle industry in Montana but the limitation of moving our cattle around, moving to feedlot, is only a fraction of the cost that would be borne by those in the purebred industry that would lose their opportunities to export Montana beef genetics all over the world. It is hundreds of millions of dollars.

Mr. KIND. OK. Thank you, Mr. Chairman.

Governor SCHWEITZER. Per year.

Mr. KIND. I appreciate it.

Mr. GRIJALVA. Thank you. Mr. Rehberg, any questions?

Mr. REHBERG. Thank you, Mr. Chairman. I will not abuse the privilege of sitting up here. I thank you for giving me this quick opportunity. The GAO, during their investigation, did they look at what Ms. Lewis had suggested, the purchase of property I believe in 1932 was an expansion of the Park clearly to the north? Clearly that did not solve the issue.

So as you look at the memorandum or the interagency agreement, do you put any kind of a value on whether that is the trend

or do you only look at that was the agreement that we are going to try and change the migration pattern of the bison out of the Park? Ultimately where do you come down? Do you do a cost benefit analysis on one answer versus the other? And more simply, will you make a determination is it better to vaccinate and clean up the herd or buy more easements or property to solve the bison and migration issue?

Ms. NAZZARO. I could see us certainly providing a number of options. We would look at—if I understand the first part of your question—from a historical perspective what has been tried in the past and how successful or unsuccessful that has been. That would be factored in but we would do kind of a cost benefit analysis. We would talk about the pros and cons. What you would get. What the various costs would be and probably lay it out more as options to the Congress.

Mr. REHBERG. One of the concerns I have heard from the ranging community in Montana is their nervousness that they have not been contacted as far as getting public input. Is that part of your study? Do you have people actually go out and talk to somebody that knows something about grazing or is this all done internally among the various Federal agencies?

Ms. NAZZARO. No. We definitely contact stakeholders during the course of our review. In fact, we did attend the interagency sponsored public meeting that was held by the various Federal agencies and state agencies. There were a number of ranchers there as well as other interested parties. We were contacted specifically by a rancher who wanted to meet with my staff, and they met with him on a Sunday afternoon to discuss his concerns.

Mr. REHBERG. So if they contact you, you are perfectly willing and able to?

Ms. NAZZARO. We would, and just under the course of our review we would try. I mean we pride ourselves as far as our independence and our balance that we give to an effort. So we would contact all stakeholders in this case.

Mr. REHBERG. Suzanne, if I could ask you a question, and as you know or I mentioned I was down in Yellowstone Park snowmobiling and looking at the bison just literally two weeks ago. I would agree with the Governor. It is overgrazed in the areas that are open. That is part of the difficulty is the pattern of grazing within the Park, and I know they are free-roaming but sometimes they need to be guided to their free-roaming areas.

Because one of the things I saw was a lot of wildlife biologists out there. There were airplanes flying all over the place taking pictures or counting. There were people on snowmobiles out there. Wildlife biologists counting. Do you in fact map the migration of the bison so that if you were to put the map of the one that is over there with the yellow park, could you tell me exactly where the 3,600 head are? Because my simple math is you get 2.2 million acres. You have 3,600 animals. You have about 700 acres per bison.

The Governor and I are both in the same business. I have been in the cattle business. I am fifth generation on the same ranch, and I can tell you a bison takes about 50 acres per bison for year-round grazing or 25 acres for six-month grazing if they are going off and eating somewhere else. There is a big difference between 50 acres

or give them 100 acres and the 700 acres, the numbers work out. Do you in fact as the manager of the Park know where those bison are, how well they are distributed, and are they in fact taking full advantage of the grass that is available to them?

Ms. LEWIS. Yes, we do, Congressman. We have extensive monitoring that has been conducted for more than a decade, and we understand where the herds are and how they move year-round throughout the Park. There are several herds, the Mary Mountain herd, the Pelican Valley herd, the Madison herd, the herd on the north end. As you yourself just mentioned, with approximately 3,600 bison that we just finished the late winter count and we have been again like I said hazing maybe about 120 head on the north end, again that tells us that more than 3,400 of the bison are well entrenched in the Park, do not get up and move during the winter months.

They are different herds with different herd behavior, different knowledge that they have about where they go in the winter. As the Governor mentioned, many of them do live in the thermal areas where they are able to feed on small lichen, stay warm throughout the winter. So most of the bison herd does not move during the winter months. The majority of them stay within the Park.

Mr. REHBERG. The troublemakers. Mr. Chairman, would it be appropriate to ask for the mapping of the migration patterns? I think that would be very helpful because in all the years I have served and worked on this Committee, I have never seen that provided to the Committee. I think it would be helpful to show that there are troublemakers around the edge, and rather than continually buying additional property or easements around the Park, let us deal with the troublemakers.

Ms. LEWIS. We would be happy to supply that data and those maps.

Mr. GRIJALVA. Thank you very much. Thank you for helping the Committee identify the troublemakers in this whole process. With that, let me ask Mr. Inslee if he has any questions.

Mr. INSLEE. Thank you, Mr. Chair. Governor, thanks for being here. It always amazes me that you have such a well managed state. You manage to take care of the country too up here in Washington, D.C. We appreciate that. I wanted to ask I read in your testimony—I did not get to hear your testimony—but I read that one idea you had floated is a special zone where you would have 100 percent testing and special zones with the agreement of APHIS that if there was an infection in that special zone it would not affect the whole state. Could you just either elaborate or tell us what APHIS' response has been and where that may end up going?

Governor SCHWEITZER. Well APHIS has a rule that says two strikes and you are out, not three, two. So if two separate herds of Montana or any other state have an animal that tests positive for brucellosis, the whole state loses their brucellosis-free status. But since this mixing zone is such a small footprint in the State of Montana, it is a thumb of the entire map of Montana on a map this size, it does not make any sense to risk all the cattle that are 300 and 400 and 500 miles away from this mixing zone.

And so if we are not capable, if we do not want to actively purchase some conservation easements until we can eradicate brucellosis, another option would be to draw a 50 or 100-mile line around the Park, and the few head of cattle that enter that area in Montana would be held to a higher standard. They would have 100 percent test. They would be tested before they entered. They would be tested when they left.

And if we did have two, three or four herds that showed a positive animal, those herds would lose their brucellosis-free status. They would be quarantined until they cleaned it up but it would not affect the status of the rest of Montana.

Mr. INSLEE. Do you think that would have the support of the industry, that heightened inspection criteria?

Governor SCHWEITZER. It has the support of some of the industry. In Montana we have several livestock groups. There is the Montana Stock Growers Association who have not been particularly warm to any of these ideas, some of which because there is a pride of authorship because they were involved in the negotiation in 2000 which probably ended up with a document that I am not particularly proud of.

The Montana Cattlemen's Association, which is a much larger organization, they have endorsed either one of these ideas that I have proposed today, in addition to eradicating brucellosis in the Park among the bison. So it is like all industries. There are different opinions but ultimately everyone agrees in Montana that is in the livestock industry we do not want to lose our brucellosis-free status, and we think that the Department of Interior ought to work with the Department of Agriculture.

After all, the United States Department of Interior has the responsibility of managing the buffalo, and it is the United States Department of Agriculture that decides whether we lose our brucellosis-free status. So we think that they ought to work together here in Washington D.C. not to dump the problem on us in Montana when the buffalo leave the Park. Thank you.

Mr. INSLEE. What is APHIS' response to that idea?

Mr. CLIFFORD. Basically when you are talking about the issue of zoning, really that is what the Governor is talking about is zoning out, zoning is done when a disease enters that particular area and the state requests it. Then we consider whether zoning or regionalization is appropriate at that particular time not prior to. Our ultimate goal is for the elimination and eradication of brucellosis from the entire U.S., both wildlife and domestic livestock. That goal has been met in 48 states. The State of Idaho and the State of Texas are the only two states that are not recognized free.

The standards that are set for the program are not just set by USDA. It is a cooperative program with the industry and the states, and so all of us together have set these standards nationally for the brucellosis program. So if you start changing those standards, it would require us to go out with our partners, both at the industry and as well with the other states, to consider those changes to the program.

Mr. INSLEE. Is that underway? Should it be underway? Should those discussions take place? I mean is there any reason not to do it prospectively rather than retroactively?

Mr. CLIFFORD. I think there is really no point at this point in time to be changing the program that has been so effective for so many years.

Mr. INSLEE. Sounds like an answer, Governor, that might not be the one you are looking for.

Governor SCHWEITZER. Well, I do not know that it has been so effective for so many years because my neighbors in Wyoming and Idaho do not think that it has been so effective.

Mr. INSLEE. Right.

Governor SCHWEITZER. They believe that the greater Yellowstone area has contributed to their loss of the brucellosis-free status. So to suggest that status quo is working when two out of three have already failed, I do not like to be the third one waiting in line for losing our brucellosis-free status. So we happen to disagree that it is working.

Mr. INSLEE. Is there not an argument, Mr. Clifford, that a prospective inspection protocol right on the boundaries of the Park actually gives consumers a greater level of protection than this sort of retroactive once it happens then we whack the whole state?

Mr. CLIFFORD. We certainly find with the prospective look as far as testing in and out of that the states can require that themselves. The State of Montana, the State of Wyoming, the State of Idaho can make those requirements within the state. They do not need the Federal government to make that determination and put those requirements in place. They can do that themselves, and we certainly support that if that is the direction they want to go with regard to testing.

Mr. INSLEE. Governor?

Governor SCHWEITZER. Well that would be amazing. So the State of Montana decides we are going to test more cattle so we can find the two herds so they can put us out of compliance and lose our brucellosis-free status. If we are going to do that in this small area, we would suggest that every cow in America be tested, and under those testing regimes there would be many more states that would lose their brucellosis-free status, if we tested every single animal.

So unless USDA is prepared to offer us the opportunity—if we do have two, three, four herds that ended up brucellosis positive—not to lose the entire state's brucellosis-free status, of course we would not subject our own herds to a higher standard of testing than the rest of the country.

Mr. INSLEE. Thank you.

Mr. GRIJALVA. Thank you. I have some follow-up questions just to kind of finish up on some questions. Mr. Clifford, does the inspection service have any documentation of the transmission of brucellosis from bison to cattle in the wild?

Mr. CLIFFORD. Not in the wild but certainly captive bison that would not act any differently than wild bison. There is an article in the 1983 proceedings of the U.S. Animal Health Association where transmission occurred from a captive bison herd in the State of North Dakota to cattle.

Mr. GRIJALVA. But my point is——

Mr. CLIFFORD. It is not wild but it is not research either. It was a captive herd of bison but the captive herd of bison is not going to act any differently than wild bison with regards to transmission.

That is why spacial and temporal separation and other activities are so critically important. In addition, in Yellowstone National Park area there have been fetuses found and tested and brucella bordis isolated from those fetuses which is infective to cattle.

Mr. GRIJALVA. But the statement I would consider true that as Chairman Rahall said in the wild there has never been a documented instance of that transmission?

Mr. CLIFFORD. To my knowledge, there has not been a documented case of wild transmission but there has been documented cases of bison to cattle.

Mr. GRIJALVA. Thank you. And just for Mr. Soukup and Superintendent Lewis, are there discussions underway with tribes? Any discussion going on between Park Service or another Federal agency with tribes adjacent to the Park relative to them assuming some herd responsibility on the reservation for the bison? Has any of that discussion occurred?

Ms. LEWIS. Yellowstone enjoys and is very proud of part of its mission which is our relationship with the 26 tribes who are affiliated with the Park. We meet with those tribes on a regular basis. There is an actual intertribal bison committee that gives us a lot of input on how we conduct the interagency bison management plan. So they are part of our routine and ongoing discussions, and I think the Governor had a comment he wanted to offer.

Mr. GRIJALVA. But specifically establishing bison in those reservations.

Ms. LEWIS. Currently the regulations controlling brucellosis through the Animal, Plant and Health Inspection Service prohibit us from transmitting any bison outside of the Yellowstone National Park because of the presence of the disease.

Mr. GRIJALVA. Governor?

Governor SCHWEITZER. But during the course of the last few years, when bison do leave the Park, young females have been captured, and with the idea that perhaps they might be young enough that they would still be brucellosis-free. We test them. If they are negative, we keep them in captivity until they have had their first calf, and the gold standard in this business is if they still do not have an elevated titer by the time they have their first calf, that they are brucellosis-free.

Now that is preparing an opportunity of a repository of these genetics to be in a position to move them out of the greater Yellowstone area and presumably to some of the reservations. In addition, we have had all of the reservations in Montana and the Nez Perce tribe from Idaho involved in our hunts that we have been conducting in Montana. We issue some of the permits. They come. They hunt. They kill animals. They slaughter them. They take them back and feed them to members of their family and community.

So I am hopeful that some of these animals that we have captured, these young females, will be a start of some genetics that we can move out to some of our Indian tribes, and give them an opportunity to raise some of these free-ranging genetics on their own reservations.

Mr. GRIJALVA. Thank you. Last question. Mr. Clifford, does the inspection service have the legal authority to enter Yellowstone

National Park to pursue a program of testing all bison in the Park and slaughtering those which test positive for brucellosis? Do you have that authority?

Mr. CLIFFORD. Our position is that we would work with the Park on that. I do not know that. You know we would have to go back and look at our particular authorities whether we would have that authority to do that or not. I really do not know if that authority exists on the papers. I do know that in time of emergency disease when the Secretary of Agriculture declares an emergency, that gives us very broad authority to take action for diseases like foot-and-mouth disease but in this case I think it would probably take that type of an emergency.

Mr. GRIJALVA. Thank you. If you would, Mr. Clifford, just for the sake of the Committee's full information on that authority question, if you could provide that.

Mr. CLIFFORD. We will do that, sir.

Mr. GRIJALVA. Thank you. Let me ask Mr. Bishop if he has any questions.

Mr. BISHOP. Yes. Let me be brief. I have two quick questions, and then perhaps a simple statement. Let me ask two questions about hunting if I could to Director Soukup again, and the Chairman touched on this. There are Indian tribes that have valid treaty rights allowing them to hunt in the Park. Is that part of your management plan?

Ms. LEWIS. There is no authority by which Native Americans can hunt inside Yellowstone National Park. The hunting that they have been participating in is outside the Park's boundary in the State of Montana by which their treaty rights do apply. They do not apply inside Yellowstone National Park.

Mr. BISHOP. We will look at that one in greater detail. I appreciate that comment. Congressman Mark Udall has introduced legislation that allows sports hunting to harvest elk in the Rocky Mountain National Park under very regulated conditions. If such legislation were introduced in Yellowstone, would your service, the Park Service, be supportive of that?

Mr. SOUKUP. As I understand that legislation, I believe we have that authority already. We have the authority to use authorized agents. How you define that and who they might be is something that in each case we analyze in our public involvement process.

Mr. BISHOP. So I do not want to put words in your mouth. Did you just say you were supportive of that? Would be supportive or would not?

Mr. SOUKUP. I believe we already have that authority.

Mr. BISHOP. Let me try this one more time. I do not want to put words in your mouth. Does that mean you would be supportive of that legislation?

Mr. SOUKUP. I do not believe we would, sir.

Mr. BISHOP. Thank you for the answer. Let me ask two last questions, and once again for GAO. I recognize the report that was requested of you deals with bison only but the issue obviously is brucellosis, otherwise there would be no issue for the report. Any report that does not actively go out and try to add the element of elk which also is the purveyor of brucellosis as part of the equation means the report would basically be woefully inadequate when it

is finished and given to us. I will simply say that as an up-front comment about it.

And finally, Director of the Park Service, I am very much troubled in the one question that I did ask you. You gave me very good answers in many of them but the one question I asked you which would be the higher value, and making a brucellosis-free herd was not your highest value. Greater Yellowstone Park is the only area where brucellosis is still a major problem.

If we are not in active management of that herd to make it a brucellosis-free, we are failing in our responsibility, and if that is not your greatest responsibility and greatest value then there is something deeply wrong with what we are doing in that Park. If we could have this as a brucellosis-free area, in both of those areas, we would solve a whole lot of problems as opposed to trying to get buffer zones, which they would then inhabit. Then you would have to have a different buffer zone and other kind of processes.

Simple logic tells us that should be the highest priority, and when you say that is not the highest priority there is something that is deeply wrong in the Park Service, and we need to talk about that in great detail later on. Thank you. I am done with the question.

Mr. GRIJALVA. Thank you. Mr. Rahall?

Mr. RAHALL. No questions.

Mr. GRIJALVA. No question. Mr. Rehberg?

Mr. REHBERG. No.

Mr. GRIJALVA. Mr. Kind?

Mr. KIND. Thank you, Mr. Chairman. I will be brief. Just to follow-up on a couple of more questions but getting back to what Mr. Bishop was asking you a second ago, Mr. Soukup. What concerns would the Park have in regards to issuing limited hunting permits for this purpose? Do you see a management problem or——

Mr. SOUKUP. I am sorry. I am not clear on what purpose your are referring.

Mr. KIND. Well he was referencing Mr. Udall's legislation as far as Rocky Mountain National Park and issuing limited hunting rights for culling the elk heard there, and you indicated the Park may not be so inclined to embrace such a policy inside Yellowstone?

Mr. SOUKUP. Well we have the authority to make reductions and to manage wildlife when we understand that there is a necessity to do that. Within that authority is the authority to use authorized agents. So——

Mr. KIND. Bring in some sharpshooters in other words?

Mr. SOUKUP. We often use the APHIS division that is very professional at this. They are very capable of doing this in a very clean, concise, quick way. We use them quite a bit. There is the possibility to use authorized agents that could be perhaps the——

Mr. KIND. But just to pin you down a little bit. I think this is what Mr. Bishop was trying to get at is there is some concern about issuing some permits to private hunters inside the Park. What is the concern?

Mr. SOUKUP. Well we have a long, very long tradition, and it is very clear in our legislation and all of our policies since 1872 that there is no hunting allowed in Yellowstone National Park.

Mr. KIND. So just tradition mainly?

Mr. SOUKUP. Well it is legal. It is in the enabling legislation.

Mr. KIND. It is in the enabling act. Yes. Mr. Clifford, let me ask you briefly are we getting better at developing an accurate, nonlethal form of testing for brucellosis or is the most accurate test after you have killed the animal?

Mr. CLIFFORD. Actually there is very accurate tests with regards to blood tests that can be done. You do not have to kill an animal to diagnosis brucella.

Mr. KIND. So you can do a pretty good calculation as far as the pure herds in Yellowstone right now if we had the resources to——

Mr. CLIFFORD. Well you have to capture the animal to be able to draw the blood.

Mr. KIND. Right. Right. Governor, you seem willing to share some information with us.

Governor SCHWEITZER. It is the doggonedest thing. When the buffalo leaves the Park, then the State of Montana is responsible to chase them around, to round them up or have a hunt. We have been hunting them for the last couple of years. We had 12 years. We went three consecutive administrations before me where we were not of the resolve to have a hunt.

So we have been hunting them when they leave the Park but we have to wait until their nose crosses a line, and then we can shoot them. So the State of Montana has to fix the problem that the Department of Interior and the Department of Agriculture have created, in part in hunting them. So I would suggest if we could hunt them on one side of the line we ought to be able to hunt them on the other side of the line and open up the entire basin for hunting.

We can control numbers. We have been controlling numbers of elk and antelope and moose and other game species in Montana. We have the largest, healthiest group of wild game in Montana. We have for 75 years, and we manage those numbers with a hunt. I do not know why the Federal government cannot follow the lead of the State of Montana. Thank you.

Mr. KIND. Well let me ask you in regards to the buyout proposal that you were suggesting today, from your experience in some of the negotiations that are ongoing, are the private landowners receptive to this idea? Are they open to it?

Governor SCHWEITZER. To some extent. The largest landowner is RTR. They are in negotiation. There are others that are discussing it with us. We have met with landowner groups in the area, and there are varying levels of acceptance but there are varying levels of offers in terms of financial contribution that can be brought to bear.

Mr. KIND. But it may be more complicated though, as you suggested too, is whenever you have free-roaming animals of this nature, transportation systems, rail system, things like that, that we would have to have a plan for as well.

Governor SCHWEITZER. Well understand that there would still be what I call a drop dead zone. Even if we purchased easement rights just adjacent to the Park, those 10,000 acres and much less of it would be private land, there would be some choke points along both the Madison River and the Yellowstone River where the canyons are very narrow. Beyond that, we would not accept a single one of those buffalo into Montana until they are brucellosis-free.

So we will not expand the area that the bison are moving in and out of. We would just allow for cattle not to be in the area where those bison are moving in and out so that we would not have cattle and bison occupying the same space. Thank you.

Mr. KIND. Is anyone working on an elk management plan comparable? Is this not the problem that Wyoming and Idaho got into as far as the spread of brucellosis, Mr. Clifford?

Mr. CLIFFORD. In my testimony what we were talking about is developing management plans for all of the elk and bison in the entire GYA. That is the direction we would like to have is an MOU with all of the parties involved to develop an elimination plan for all of the bison and elk in the greater Yellowstone. We recognize that that is a long-term effort but we believe it is the best effort with regards to moving this issue forward.

Mr. KIND. OK. Thank you. Thank you, Mr. Chairman.

Mr. GRIJALVA. Mr. Heller?

Mr. HELLER. Thank you, Mr. Chairman. Dr. Clifford, I just have a couple of questions. What is the status of say Nevada and Utah as far as the brucellosis disease is concerned?

Mr. CLIFFORD. All the states in the U.S. are free with the exception of Idaho and Texas.

Mr. HELLER. And the reason I ask you know I apply for tags, elk tags, deer tags in Utah. In fact, I think there is even a bison herd in Utah, is that correct?

Governor SCHWEITZER. Yes, and they have a hunt.

Mr. HELLER. They do have a hunt?

Governor SCHWEITZER. You bet.

Mr. HELLER. That is what I thought.

Governor SCHWEITZER. You bet.

Mr. HELLER. Because every time I apply for a tag in Utah I see bison on the form, never applied for a bison tag, but interesting that it is there. What is the status of that herd there?

Mr. CLIFFORD. Those herds are free of brucella.

Mr. HELLER. Then explain to me why the disease is so more acute in Yellowstone Park as opposed to a herd in Utah.

Mr. CLIFFORD. Well I do not know that it is an issue of being acute. I think it is an issue of the fact that the disease has been present there for a long period of time. I think it was first diagnosed in the Yellowstone bison I believe it was in 1917, and the disease really to my knowledge has never been eradicated from that population of animals, even during that entire period of time, and now it is in the elk population as well, and it is a bigger issue.

Mr. HELLER. You are saying it is not in the elk population though in Nevada or Utah that you are aware of?

Mr. CLIFFORD. Not that I am aware of.

Mr. HELLER. Thank you. Thank you, Mr. Chairman.

Mr. KIND. [Presiding.] Thank you. Mr. Rahall, any further questions?

Mr. RAHALL. No.

Mr. KIND. Mr. Bishop?

Mr. BISHOP. No.

Mr. KIND. I want to thank all of the panelists here and your testimony was very helpful, very enlightening, and obviously we have some work to do. So thank you for your testimony here today.

[Recess.]

Mr. KIND. OK. I think we are going to keep this going. We have some votes starting shortly. So we want to get to the next panel of witnesses as soon as possible, and we have with us for the third panel Mr. Josh Osher with the Buffalo Field Campaign. Thank you for joining us. Tim Stevens, Yellowstone Project Manager, National Parks Conservation Association. Wayne Pacelle, who is the CEO of the Humane Society. Good to see you again, Wayne. Jim Hagenbarth, Montana Stock Growers Association and Dr. Charles Kay from the Utah State University.

I believe all or some of you have submitted written statements that will be made a part of the record but let us start with Mr. Osher for your testimony. Thank you for being here.

STATEMENT OF JOSH OSHER, BUFFALO FIELD CAMPAIGN

Mr. OSHER. Thank you. It is a pleasure to be here. Mr. Chairman, members of the Committee, again my name is Josh Osher, and I am a coordinator with the Buffalo Field Campaign. The Buffalo Field Campaign is the only group working in the field every day documenting the harassment and slaughter of Yellowstone's wild bison herd. Buffalo of Yellowstone National Park cannot be here today to defend themselves to this committee and to represent themselves, and we do not pretend to speak for them but we are their advocates, and that is why we are here today.

I would also like to recognize that with me today is Darrell Geist, a Buffalo Field Campaign associate, who has researched extensively the grazing program in the Gallatin National Forest and D. J. Shubert from the Animal Welfare Institute with 20 years plus experience on this issue as a wildlife biologist.

Twenty-five to 40 million buffalo once roamed the North American continent. Their range expanded from Canada to Mexico and across the United States. They were an incredibly significant feature of the lives of many Native American tribes living in the plains region. The buffalo were so important to the Native Americans in this area that they considered them their relatives.

But a directed policy in the late 1800s led to the extermination of nearly all of the buffalo from their native range. In less than 50 years, the millions were down to just a handful of animals that survived in Yellowstone National Park's Pelican Valley. The buffalo of Yellowstone today are the only living link in this country to the great herds of millions that once roamed freely throughout the plains. They are genetically pure, not hybridized with cattle. Their significance is strong with the American people as well as they are—as was pointed out earlier—a symbol of the Department of Interior and the National Park Service.

They are truly a treasure. However, these agencies have advocated their responsibility toward the buffalo in recent years. In 2000, as has been mentioned, the interagency bison management plan was developed through court-ordered mediation. The management plan is a product of politics, not of sound science. It was even recognized by the agencies that there was large disagreement and the plan would be an adaptive management plan.

However, the plan has focused solely on eliminating buffalo from the range that they are trying to access outside of the Park. The

agencies use techniques called hazing where they use horses, ATVs, helicopters and snowmobiles, as the Governor described. In one instance last year, 14 bison fell through the thin ice of Hebgen Lake as they were chased by snowmobiles. Two drowned, and then within several months later all 40 or so of those bison were rounded up and sent to slaughter anyway, without even preliminary brucellosis testing.

When the buffalo are deemed unhazeable, they are captured, and these facilities that you are seeing here, these are designed for domestic livestock. This is the product of years of an eradication program for livestock. Wild buffalo are not domestic livestock. They cannot be treated the same way. In these facilities the buffalo are often injured, some of them are even mortally wounded in these facilities, never even making it to the testing chutes or eventually to the slaughterhouse.

Oftentimes when buffalo are captured, they may be tested for brucellosis exposure, and the testing procedures are themselves quite a brutal experience for these buffalo. These procedures were designed for domestic cattle. The tests used were designed for domestic cattle. They are not accurate in the buffalo. Less than 20 percent of the buffalo that test positive for antibodies to brucellosis actually test positive when their tissues are cultured for the bacteria. So most of the animals that are being slaughtered do not in fact have brucellosis. What they have is the resistance to brucellosis.

In the last six years of the interagency plan, over 2,000 wild buffalo have been killed by the agencies, 1,500 by the National Park Service alone, 850 of those just last year as they try and leave the Park. If this was not enough, the agencies have moved onto a program the Governor spoke about quarantine. Bison quarantine is a program where these calves are taken from their families. They are placed in a facility north of the Park. They are held captive for four years. They are fed hay. They are fed water. They are ear tagged. They are moved around. They are kept in small pastures and small corrals.

These are our Yellowstone buffalo with ear tags being treated like domestic cattle. Is this the future we really want to see for the wild buffalo of Yellowstone? So that what you have seen here are the tools of brucellosis eradication: Testing, slaughtering, vaccination. The vaccine just simply does not work in the buffalo. Some studies have indicated it has not efficacy. Some other studies have put that up to around 40, 50 percent. But the truth is, these are buffalo. They are not cattle. The vaccines and the tools and the tests for cattle do not work on buffalo.

What the buffalo really need is winter range habitat, and it is available. There is a large landscape in Montana, and we can make this land available for wild buffalo. The Gallatin National Forest can create a wild bison recovery zone where they make multiple use decisions based on the concept that this land is prioritized for habitat for wild buffalo. It is their principal role in the interagency management plan to provide habitat.

APHIS can do what the Governor said: Create a zone management system for domestic cattle in the greater Yellowstone area to protect Montana's brucellosis-free status. They can provide service

to the livestock industry which is their charge rather than funding the slaughter of wild buffalo.

Yellowstone has to return to its original charter, to conserve the scenery and the natural and historic objects and the wildlife therein and leave them unimpaired for the enjoyment of future generations. It took an Act of Congress, signed by the President, enforced by the U.S. Army to stop the near extinction of Yellowstone's wild buffalo before. It is going to take an Act of Congress now to ensure their survival and restoration as a native wildlife species in the American west. Thank you for your time.

[The prepared statement of Mr. Osher follows:]

Statement of Joshua Osher, Coordinator, Buffalo Field Campaign

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to address the subcommittee on this issue of great importance to the American people.

A Brief History of the Yellowstone Herd

The bison of Yellowstone National Park are unique among herds in the United States, being members of the country's only continuously wild herd. Bison once ranged from the northeastern United States to Oregon and California and from northern Mexico and Florida to northern Canada. Freely migrating in response to natural conditions, North America's bison comprised the largest concentration of mammals ever known to exist. While no one will ever know exactly how many bison the continent once supported, scientific estimates place the figure between twenty-five and forty million animals.

North America's native bison gave rise to and supported diverse Native American cultures. For many tribes of the Great Plains and surrounding regions, the bison was essential to life. John Fire Lame Deer eloquently expresses the depth of the connection between the Lakota Nation and the Buffalo Nation: "The buffalo was part of us, his flesh and blood being absorbed by us until it became our own flesh and blood. Our clothing, our tipis, everything we needed for life came from the buffalo's body. It was hard to say where the animal ended and the man began." John Fire Lame Deer and Richard Erdoes, Lame Deer: Seeker of Visions, Simon and Schuster, New York, 1972, p244

The mass eradication of wild bison from the plains, an episode in our history with which we are all familiar, forever altered the balance of life in North America. By the early 20th century all but one of the wild herds had been killed and virtually every Native American tribe had been eradicated or forced into a sedentary lifestyle on a reservation. When the last great bison herds were decimated in the West, a few hearty individuals holed up in Yellowstone's Pelican Valley, one of the country's coldest and most snowy valleys, barely avoiding extinction.

Fearing that the wild herd would die off, park managers purchased 18 captive cow bison from Montana's Flathead Valley and three bulls from the Texas Panhandle to establish a herd on Yellowstone's northern range. Over time, members of the Lamar herd mingled with members of Yellowstone's indigenous Pelican Valley herd. While the extent of interbreeding isn't known, the bison we see today in Yellowstone National Park are directly descended from these herds. Members of the only herd in America never confined by a fence, these bison carry a direct genetic link to Yellowstone's original population.

Yellowstone's approach to bison management in the 20th century tended toward the heavy-handed. Animals were sometimes ear-tagged and branded, confined in pens as tourist attractions, and fed at cattle-like feed-lines. Bison calves from the wild Pelican Valley herd were captured and nursed on domestic cow's milk, a practice that likely resulted in the Yellowstone bison becoming infected with the livestock disease brucellosis. The Department of Agriculture and the Montana and Wyoming livestock industries, fearing a transmission back to cattle, pressured Yellowstone officials to capture, test, vaccinate, and slaughter Yellowstone bison within the park, which they did periodically between the 1920s and 1967, when Yellowstone adopted a more hands off "natural regulation" approach to wildlife management. The bison were largely left alone inside the park between the late 1960s and the early 1980s, a result of this new management paradigm and a period of mild winters in which bison stayed deep within the park.

Harsh winters are another story. Snow and ice obscure the grass in the park and hunger pushes the bison to lower elevations, which happen to lie across the Mon-

tana border. When they cross this invisible line, bison change political jurisdictions and step into a conflict zone. Montana held a hunt for migrating Yellowstone bison between 1982 and 1989, when a national public outcry forced the state to call it off. Montana game wardens took up where the hunters left off, shooting any bison that left the park. In 1995 the Montana legislature turned bison management authority over to the Department of Livestock (DOL), an agency mandated with protecting the interests of the state's livestock industry, where it remains to this day.

Although there has never been a documented case of brucellosis being transmitted from wild bison to livestock, the DOL and, in recent years the NPS, use the disease to justify the harassment and slaughter of bison when they leave or approach the boundary of the park. Since 1985 the DOL and Yellowstone National Park have killed more than 5,000 Yellowstone bison. While elk and other wildlife also carry the disease, only bison are routinely hazed, captured, and slaughtered, indicating that the agencies are more concerned with controlling bison than with controlling brucellosis.

More bison were killed during the winter of 1996-1997 than in any single year since the 19th century. That winter and spring the National Park Service and the State of Montana killed 1,084 Yellowstone bison. Starvation was common as well, as early winter rains turned the snowpack to mush. Record freezing temperatures locked the grass away beneath a thick slab of ice, and heavy snows followed. Bison, braced against blizzard, nuzzled heavy snow aside only to scrape their noses on diamond-hard ice. Between the human slaughter and natural deaths, over two thousand animals, more than half the herd, were killed in a matter of months.

Under the Interagency Bison Management Plan (IBMP), an agreement forced upon Montana and the U.S. Government by court order, America's only continuously wild bison are still not tolerated in Montana. Chased with snowmobiles, helicopters, and ATVs; trapped and confined in cattle pens and quarantine facilities; and shot on their native habitat, Yellowstone bison are in serious trouble. The National Park Service and the Montana Department of Livestock killed more than 1,000 Yellowstone bison in 2006. The Park Service alone was responsible for the death of more than 900 animals, the most killed by the agency in its 90-year history.

Today's Yellowstone herd faces a situation perilously similar to that of its ancestors of a century ago. Wild bison are considered ecologically extinct everywhere outside Yellowstone. If history continues on its present course, the Yellowstone herd will become just another intensively managed, domesticated herd, and the thin thread so tenuously linking our present century to the wild and fertile past will be forever severed.

In 1872 the U.S. Congress played an instrumental role in the creation of Yellowstone National Park and the protection of the American bison from hunters and poachers. In 2007 Congress can play an equally important role in the protection of the Yellowstone bison from state and federal agencies operating under an inherently flawed management plan.

What is the Interagency Bison Management Plan (IBMP)?

The IBMP, and the Modified Preferred Alternative of the Final Environmental Impact Statement (FEIS) that it represents is the product of court ordered mediation resulting from a Federal lawsuit. 95 percent of the public comments on the FEIS were opposed to the agencies' Preferred Alternative, yet the Plan was approved in the state and federal Records of Decision in December, 2000.

The IBMP's stated purpose of action is, "to maintain a wild, free-ranging population of bison and address that risk of brucellosis transmission to protect the economic interest and viability of the livestock industry in the state of Montana." FEIS, Vol. 1, p. 14. The FEIS continues to state in the "Need for Action" section, "Bison are an essential component of Yellowstone National Park and the Gallatin National Forest because they contribute to the biological, ecological, cultural, and aesthetic purposes of the park. However, Yellowstone National Park is not a self-contained ecosystem for bison, and periodic migrations into Montana are natural events." FEIS, Vol 1, p. 14. This analysis continues in the FEIS in the "Objectives In Taking Action" section, "Lower elevation range could provide areas for bison to winter adjacent to the park as well as additional management options ... and the modified preferred alternative already includes acquisition of lands to the north of the Reese Creek boundary on the Royal Teton Ranch." FEIS, Vol. 1, p. 45

Furthermore, the IBMP is designed as an adaptive management plan. "Professionals in the fields of wildlife science, livestock disease, wildlife disease, livestock management, and wildlife management do not agree on the central issues relating to brucellosis in Yellowstone bison. The agencies have agreed to support research on these issues and will update the bison management plan as new information becomes available." FEIS, Vol. 1, p. 45.

Is the IBMP living up to it's stated goals?

In the six-year history of the IBMP, nearly 2000 Yellowstone bison have been killed as a result of agency management actions. The National Park Service alone is responsible for the slaughter of nearly 1,500 bison under the IBMP. The plan was originally developed in three phases. According to the timeline provided in the FEIS, the plan should have entered step 3 during the winter of 2003/4 in the western boundary area and by the winter of 2004/5 in the northern boundary area. However, to date, the plan is still mired in step 1 with no established or updated time line as to when the plan will advance to steps 2 and 3. Under step 3, untested bison would be allowed to utilize habitat outside of Yellowstone National Park.

One primary assumption made in the FEIS that enables progression to steps 2 and 3 in the Northern Boundary area is the elimination of livestock grazing on the Royal Teton Ranch (expected in 2002) and the development of a bison plan for the federally acquired and easement lands north of Reese Creek. As of today, cattle still graze on the Royal Teton Ranch and there is no bison plan for the federally acquired lands. Therefore, bison are still being hazed, captured and slaughtered by the National Park Service for attempting to access this essential winter range habitat. Last winter alone, Yellowstone National Park captured nearly 1,200 bison and sent almost 900 to slaughter.

No transmissions of brucellosis between wild bison and domestic cattle have occurred under the IBMP. Montana still firmly holds its class-free brucellosis status. The viability of Montana's livestock industry has not been compromised in any way by the Yellowstone bison herd. However, there has never been a documented case of brucellosis transmission between wild bison and domestic cattle. Therefore, it is inaccurate to characterize the IBMP as having protected Montana's livestock industry from brucellosis transmission and the loss of class free status. In fact, the implementation of the IBMP's methods for providing temporal and spatial separation between bison and cattle, particularly hazing of bison back into Yellowstone National Park, may add to the risk of infected birthing materials in the environment as pregnant female bison are highly stressed prior to calving. The simple truth is that brucellosis transmission between wild bison and cattle is a highly unlikely event. Sensible risk management practices that incorporate the best available science could easily prevent transmission from occurring without the excessive cost and harsh practices of the current IBMP.

In terms of ensuring a viable, free-ranging population of wild bison, the IBMP is failing in it's stated goals. The bison are unable to access vital winter range habitat outside of park borders. Thousands of bison have been killed for attempting to access lands that were expected to be available several years ago. Additionally, recent research in the genetic makeup of Yellowstone bison indicate a high probability that there are at least two and likely three unique and distinct subpopulations of bison that make up the Yellowstone herd. Natalie Dierschke Halbert, The Utilization of Genetic Markers to Resolve Modern Management Issues in Historic Bison Populations: Implications for Species Conservation, December 2003, pages 137-140. Therefore, management removals of large groups of bison migrating to the boundary areas, as was the case last winter, could have significant detrimental impacts on the genetic viability of one or more subpopulations. The IBMP has not adapted management protocols to reflect these findings, leaving the future of the bison in jeopardy.

How is the IBMP implemented?

Hazing

Spatial and temporal separation of bison and cattle is the primary risk management strategy of the IBMP. This is currently accomplished by "hazing" bison back into Yellowstone National Park. Hazing is the term the agencies use to describe the forced movement of bison. The Montana Department of Livestock, the lead agency on the park's western boundary, uses a variety of means to haze bison. These include helicopters, snowmobiles, ATV's and horses. Oftentimes, bison are chased ten miles or more to the park border or the capture facility. The bison, desiring to access their chosen spring calving grounds on the Gallatin National Forest's Horse Butte Peninsula, will return the next day only to be chased back again. Newborn calves and pregnant females suffer greatly from the stress of these repeated hazing operations.

Hazing operations, by the very nature of the implements used, not only impact the bison, but are highly detrimental to the multitude of other species that occupy this magnificent wildlife migration corridor. Displaced species include bald eagles, trumpeter swans, elk, moose, wolves, grizzly bears and a myriad of other species. This type of hazing is also very costly, requiring large numbers of personnel and expensive equipment.

Capture

The protocols of the IBMP allow the agencies to capture bison that are deemed "unhazeable." The Montana Department of Livestock operates one permanent capture facility within 1/4 mile of the park border at Duck Creek and one temporary capture facility on the Horse Butte Peninsula through a special use permit granted by the Gallatin National Forest. The National Park Service operates one capture facility, Stephens Creek, located within park borders near the northern boundary. These facilities are all modeled after livestock handling facilities. It is important to remember that wild bison are not domestic cattle. The nature of the bison and the facility design create a circumstance where bison are often injured or even killed in the trapping, sorting and transporting process.

Testing

Once captured, the bison may be tested for exposure to brucellosis bacteria. All bison that test positive for exposure on the standard blood test are immediately shipped to slaughter. Bison that test negative may be tagged and released or held for future release. Negative testing bison calves and yearlings may also be shipped to an experimental quarantine facility located near the park's northern border. Often times, tagged bison will be recaptured and retested or sent to slaughter at the discretion of the agency. The process of testing bison at the capture facilities is both cruel and inhumane. The animals are highly stressed, the agency handlers are often aggressive and unforgiving, and the facility design is inappropriate for wild bison.

However, not all captured bison are tested for brucellosis exposure. The IBMP allows for the slaughter of all captured bison without testing if the late winter / early spring population is estimated to be above 3000. Last winter, the National Park Service sent nearly all of the adult bison captured at Stephens Creek to slaughter without prior brucellosis testing. Only the calves were tested with negatives being sent to quarantine. Calves that tested positive were sent to slaughter.

The tests used to determine whether an animal has brucellosis are highly controversial. The standard blood tests (serological tests) only identify long-term antibodies to brucellosis. These tests were designed for cattle, not bison or other wildlife. Other bacterias, particularly yersenia, can cross-react with brucellosis and show a positive test result. Additionally, when compared to culture tests of tissues sampled from slaughtered bison, considered the gold standard in brucellosis testing, studies show that the correlation between seropositive bison and culture positive bison is very weak. Many bison test seropositive simply because they were once exposed to brucellosis bacteria in a strong enough concentration to produce an immune response. These bison may have already cleared the bacteria but still retain antibodies. Essentially, the bison selected for slaughter may, in fact, often be those that have developed resistance to the bacteria.

Slaughter

Since 1985, more than 5,000 wild bison from Yellowstone National Park have been killed through a combination of agency management actions and state-sponsored hunting. The majority of these animals, particularly since the inception of the IBMP, were sent to slaughterhouses throughout the region. Yellowstone bison are wild animals. The procedures involved in sending bison to slaughter include sorting in the capture facility, loading onto trucks, hours of transport to the slaughter facility, and finally the taking of their lives on the slaughterhouse floor. This process sometimes takes days and hundreds of miles of transport. The bison are often not fed or given water during this time. They are highly stressed and often arrive at the slaughterhouse in terrible condition. Some are so badly injured and bruised that the meat and hides are not in usable condition.

Quarantine

The IBMP made provisions for the addition of quarantine as a management tool when such facilities were established. The agencies view quarantine as a management option that would provide more flexibility in handling bison that test negative. Currently, USDA's Animal and Plant Health Inspection Service and the Montana Department of Fish, Wildlife & Parks are conducting a quarantine feasibility study at two facilities located just outside the park's northern border in the heart of a critical wildlife migration corridor. The study is a multi-year program whereby two groups of 100 test-negative bison calves or yearlings will be held for a total of four years, undergo multiple rounds of testing and be bred twice before being released to unnamed public and tribal lands. One half of the bison are slaughtered under the protocol with their tissues being culture tested for the bacteria.

The facilities the agencies chose for quarantine are very small. The young bison are kept behind tall double fencing right along State Highway 89. They are fed hay

and drink water from troughs. They are quickly becoming domestic animals and losing their wild instincts. They no longer have the benefit of experience passed on from their family groups. Each day, they are one step farther from being the wild Yellowstone bison they were before capture.

Vaccination

A key component of the IBMP is the addition of bison vaccination. Subcutaneous vaccination of bison calves and yearlings has already been incorporated into the plan for captured bison on both the north and west boundaries. The National Park Service is still in the process of developing an Environmental Impact Statement for remote delivery of vaccine within the park. The vaccine currently approved for use in bison calves and yearlings is RB51. However, the efficacy of RB51 for bison is highly controversial. A report to the United States Animal Health Association in 2002 on the efficacy of RB51 as a calfhood vaccine concludes, "based on the high number of abortions/weak calves, high percentage of colonized calves, and due to the high number of cow/calf pairs that will still be infected with virulent brucellae, B. abortus RB51 cannot be considered an efficacious calfhood vaccine in bison." Elzer, et. al., 2002. This study, unlike many other vaccine trials, attempted to mimic field conditions in the GYA.

Additionally, RB51 is not considered a safe vaccine for adult bison. Therefore it could only be used on calves and yearlings. One study examining the use of vaccination as an eradication tool concludes that the focus would need to be on adult female bison with a vaccine that is at least 50 percent efficacious. Dobson, unpublished. This type of vaccine simply does not exist. Time and energy would be better spent in the development of a more efficacious vaccine for domestic cattle. Cattle are already regularly vaccinated for many livestock diseases. Additionally, there is a need for a better brucellosis vaccine for cattle throughout the world. RB51 has been widely criticized for it's low efficacy in cattle, particularly in countries where brucellosis is widely present.

Can Brucellosis be Eradicated from Yellowstone Bison?

Eradication of brucellosis as an eventual goal is a concept that is easy to support in theory. If brucellosis were not found in Yellowstone's bison, sound wildlife management might be much easier to develop and implement. However, brucellosis is endemic in the Greater Yellowstone Ecosystem (GYE). Bison are not the only affected species. Tens of thousands of elk in the GYE also potentially carry brucellosis, particularly in Wyoming where elk are fed throughout the winter. Some of these elk also migrate into Yellowstone in the summer months leading to the potential for transmission to bison and other species. Additionally, many other species have been known to carry brucellosis including grizzly bears, black bears, wolves, coyotes, foxes, moose, bighorn sheep, beavers, and even muskrats. Therefore, any efforts that focus specifically on bison without addressing the disease in the ecosystem as a whole will not provide a long-term solution to this issue. Even if brucellosis were eradicated from Yellowstone bison, there is a high probability that they would be reinfected in the future.

The tools of brucellosis eradication are highly limited and would result in the decimation of the Yellowstone bison herd. The primary tool for eradication is test and slaughter. Based on the inaccuracy of the current blood tests, it has been estimated that test and slaughter could reduce the bison herd to as few as 10 animals. Dobson, Unpublished. Test and slaughter would also require handling nearly every bison in Yellowstone. Capture facilities would have to be set up throughout the park and maintained for many years. This type of program was attempted in Yellowstone in the early 1960s, reducing the herd to fewer than 200 animals. In 1967, the National Park Service instituted a policy of "natural regulation" and ended the test and slaughter program. The costs to the bison and to the natural resources of the park were considered too high to continue this program. The tools of eradication have not significantly changed since this time.

Vaccination, as discussed earlier, is another tool of brucellosis eradication. However, vaccination alone, using the currently available vaccines, will not result in the eradication of brucellosis. Neither was vaccination ever a stand alone tool to eradicate brucellosis in domestic cattle. Test and slaughter has always been the primary mechanism because of the limitations of the available vaccines.

Given all of the constraints, particularly the social/cultural consequences of aggressively handling all of the bison inside Yellowstone National Park, eradication of brucellosis utilizing the tools currently available is not a realistic goal. Sensible risk-management policies are a much more effective means of protecting Montana's livestock industry and the viability of Yellowstone bison. Risk management, however, does not preclude efforts to develop alternative methods to eradicate brucellosis in the long run. Research into more effective vaccines for livestock and a poten-

tial cure for brucellosis can be conducted, but in the meantime, habitat-based risk management polices must be instituted to protect the bison and Montana's livestock industry.

Winter Range Habitat

The provision of lower elevation winter range habitat is essential to resolve the current conflicts at the park border regions. Yellowstone National Park simply does not have sufficient winter range habitat for any of the ungulate species within its boundaries. Regardless of the population of bison in the park, animals will always move to the boundary areas in search of better winter habitat. During winters when the snow conditions make it difficult to access food within the park, large migrations are likely. The current management plan does not provide for access beyond park border to winter range habitat. This circumstance has led to the slaughter of thousands of migrating bison throughout the years, underscoring the failure of the IBMP to protect wild, free-roaming bison.

The necessary winter range habitat on the west side of the park lies beyond the current zones of the IBMP. The primary winter range habitat is located in the Madison Valley. This area is comprised mostly of large tracts of private and public land. Some of the landowners in the Madison Valley lease their land for livestock grazing in the summer. However, the climactic conditions of this region preclude winter grazing of cattle. The nearest cattle present in the valley during the winter are more than 35 miles from the park border. Much of the public land is leased for livestock grazing, but the stocking dates are typically not until late June or July. Therefore, most of the valley is cattle-free during the winter months when bison would utilize this area as winter range. The latest research on the disappearance and persistence of brucellosis bacteria suggests that the bacteria would not remain in the environment after early June. If cattle stocking dates are designed to reflect this science, brucellosis transmission between bison and cattle could be easily prevented.

On the north side of the park, the primary winter range occurs outside park boundaries along the Yellowstone River corridor. Much of this land is owned by the Church Universal and Triumphant (CUT). In the late 1990s Congress appropriated $13,000,000 for conservation easements and land exchanges that were supposed to provide winter range habitat for bison. However, these lands are still not available to bison and are the primary factor influencing the Park Service's decisions to capture and slaughter bison that attempt to migrate onto CUT lands.

What can Congress Do?

The primary needs to address the concerns about brucellosis transmission and the long term viability of Yellowstone bison involve the acquisition of winter range habitat for bison and the modification of the classification system for brucellosis in the Greater Yellowstone Area.

Congress can facilitate the resolution of grazing issues associated with the Royal Teton Ranch.

Congress can direct the Animal and Plant Health Inspection Service to develop a brucellosis-management zone whereby livestock producers within the zone will institute brucellosis proof management practices. This might include booster vaccination of cattle, wildlife-proof fencing of cattle feed-lines, individual herd certification for brucellosis, and a reorganization of stocking dates consistent with the best available science about brucellosis persistence and disappearance. The costs of this program could be recovered using the monies saved from the reorganization of the IBMP.

Congress can direct the Gallatin National Forest to establish a wild bison recovery zone within which the needs of habitat for bison and other species are taken as a primary consideration in all multiple use decisions.

NOTE: Attachments and a statement submitted for the record by Darrell Geist, Researcher, Buffalo Field Campaign, have been retained in the Committee's official files.

Mr. GRIJALVA. [Presiding.] Thank you. Mr. Stevens.

STATEMENT OF TIM STEVENS, YELLOWSTONE PROJECT MANAGER, NATIONAL PARKS CONSERVATION ASSOCIATION

Mr. STEVENS. Mr. Chairman and other members of the Subcommittee, thank you for inviting me to testify about the bison that make Yellowstone our first national park home. The National

Parks Conservation Association works to protect and enhance America's National Park System for present and future generations. I am NPCA's Yellowstone program manager based out of Livingston, Montana.

Last year, as was mentioned, over 900 migrating bison were stopped at the Park's border and shipped to slaughter. This is a national travesty and an embarrassment to the National Park System. Ironically with slaughter it takes place at a time when 57 percent of Yellowstone's visitors cite seeing buffalo as their most important task when they come to the Park, and in 2004 wildlife watchers spent $82 million in the region.

Each winter bison move out of Yellowstone's high country to lower, snow-free lands. Some claim that this migration is due to too many bison and lack of forage in the Park. In reality the most recent studies attest that the current population of 3,600 is well below the carrying capacity of 5,500 to 7,500 animals. Scientists tell us that no matter if there is 300 or 3,000 bison, when the snow gets too deep bison will move out of the Park to seek forage. However, the zero tolerance policy toward bison beyond boundaries prevents access to these critical lands.

Seven years and millions of dollars after completion of the interagency bison management plan the plan's goals have yet to be achieved. However, there are solutions to the current dilemma, and with the enactment of the four-point strategy outlined here we can protect the region's livestock industry, while reestablishing a healthy, free-ranging Yellowstone bison population.

Point one, assisting with the completion of the grazing agreement with the Royal Teton Ranch. It is important to note that while details of the agreement are still being worked out it is critical that any agreement allow adequate bison numbers onto these lands, and that the cost of any deal stays within reason but successful completion and funding of this agreement will be an absolute watershed for Yellowstone bison. This agreement would be financed by Federal, state and private funds but it is essential that Congress lead the effort to pay for the grazing agreement.

Point number two, creating a brucellosis classification subregion within greater Yellowstone, and we were encouraged to hear the Governor's words earlier, but some in the livestock industry have rightly questioned the current policy that is in place, and NPCA agrees. Congress can help craft part of the solution by directing the USDA to create the brucellosis subregion or zone in counties surrounding the Park. The subregion that is managed for separation of livestock and bison and also that provides government assistance for fencing and vaccination will be a major step in the right direction.

Point three, instituting a spacial and temporal separation of bison as the primary short-term means for addressing brucellosis. To date management has focused on attempts to eliminate brucellosis. Lost in the debate is the fact that brucellosis is present in many other wildlife species, including bears and elk which are much wider ranging than bison across the landscape. So even if we had 100 percent success rate at eliminating brucellosis from bison, it still would be present in other wildlife. Simply put, eradication of brucellosis in all wildlife is impossible in the short-term.

The Western States Livestock Association recently voiced their support for separation of livestock and bison as the means to address concerns over brucellosis. NPCA agrees. Many creative and viable approaches—other than slaughter of bison—have yet to be tried. By providing dollars and direction necessary to focus on separation as the primary strategy, Congress can help forge a new path away from slaughter and toward long-term solutions.

And my final point is that additional monies are needed to develop safe and effective vaccines that can be broadly administered to wildlife. Equally important is the need for more investment in development of a safe vaccine for livestock. Obviously it would be much more practical to administer a brucellosis vaccine to livestock than to wildlife.

In conclusion, Yellowstone is at a crossroads with its and America's iconic wildlife species. Central to their long-term survival is the protection of bison habitat. We are already seeing what happens when this habitat is lost in and around other parks across the country where the ability to use reasonable wildlife management tools is precluded, leaving only the most inhumane and wasteful alternatives.

We still have a chance in Yellowstone to show that we can make it work for bison but realizing this opportunity requires prompt action. Thank you for considering our views. I would be happy to answer any questions.

[The prepared statement of Mr. Stevens follows:]

Statement of Tim Stevens, Program Manager, National Parks Conservation Association

Mr. Chairman, and other distinguished Members of the Subcommittee, thank you for inviting me to testify about the bison that make Yellowstone—our first national park—their home. Founded in 1919, the National Parks Conservation Association works to protect and enhance America's National Park System for present and future generations. Today, we have 22 regional and field offices across the country, including the Yellowstone Field Office in Livingston, Montana, which I manage. I'm here today on behalf of our more than 325,000 members, who care deeply about our national treasures and want to see them protected.

The History of Bison, and Bison Management, in Yellowstone National Park

Yellowstone National Park remains the only place in the country home to truly wild, genetically pure bison with an unbroken connection to their native habitat. Tens of millions of bison once thundered upon western plains in the mid-19th century. When the buffalo slaughter of the late 1800s ended, only 23 bison remained in the wild, and Yellowstone was their sanctuary. Numbering 3,600 today, Yellowstone's herd has irreplaceable biological, cultural, spiritual and historic value, and is one of our nation's great conservation success stories.

The designer of the famous buffalo nickel, minted between 1913 and 1938, chose the buffalo design because it represented a uniquely American image. Yet, over the past two decades, 5,000 wild Yellowstone bison have been killed by state and federal agencies to keep them from accessing winter habitat in Montana adjacent to the park. Last year alone, more than 900 migrating bison were stopped at the border of Yellowstone and shipped off to slaughter. This is a national travesty and an embarrassment to the National Park System. Ironically, this slaughter takes place at a time when Yellowstone is experiencing a significant growth in visitors who offer wildlife viewing as the primary reason for their visit. Fully 57% of Yellowstone's visitors cite seeing bison as their main reason for visiting the park and wildlife watchers spent $82 million in the Yellowstone gateway region in 2004.

Each winter, bison, like other wildlife, tend to move out of Yellowstone's high country to lower habitat with better forage on lands adjacent to the park. In fact, in 1926 Congress authorized additions to the Absaroka and Gallatin national forests next to Yellowstone, recognizing that wildlife needed to use lower-elevation land beyond park boundaries, especially during winter. Some falsely claim that the reason

bison leave Yellowstone is because there are too many bison in the park and there is not enough forage to sustain them. Instead, the most recent studies attest that there are an estimated 3,600 bison inside the park, well below the most recent estimated carrying capacity of 5,500-7,500 for Yellowstone. In addition, in 2002 the National Research Council, the working arm of the National Academy of Sciences, completed an exhaustive review of science related to the health of Yellowstone's northern range, and found that bison and other ungulates are not destroying Yellowstone's grassland habitat. Scientists tell us that it doesn't matter if there are 3,000 or 300 bison in the park, when the snow gets too deep, they will seek winter habitat and forage outside the park. But in recent years, there has been a policy of zero tolerance for wild bison beyond park boundaries that does not allow these animals access to ancestral lands.

Yellowstone's wild bison are being captured and killed due to a fear that they will transmit brucellosis to cattle. Brucellosis is a disease caused by a bacterium (Brucella abortus) that can infect wild and domestic animals. Brucellosis has little effect on wildlife, including some Yellowstone bison and elk with the disease, but it can initiate premature births in cattle. For this reason, livestock interests have worked hard to eliminate brucellosis from domestic herds. Ironically, Yellowstone bison picked up the brucellosis bacterium from a herd of dairy cattle that were brought to Yellowstone National Park nearly 90 years ago. There has never been a single recorded case of wild bison transmitting brucellosis to cattle in the wild. The risk of transmission between wild bison and cattle was deemed low in a 1992 General Accounting Office report, and again in a 1998 National Research Council study.

Solutions to Protect Bison, and Montana's Livestock Industry

The National Parks Conservation Association (NPCA) believes that the American public now has an unprecedented opportunity to not only greatly advance efforts to restore bison on the landscape, but to also assure security for the region's livestock industry.

Bison are currently managed under the Interagency Bison Management plan (IBMP), whose purpose is:

> **"...to maintain a wild, free-ranging population of bison and address the risk of brucellosis transmission to protect the economic interest and viability of the livestock industry in the state of Montana."**

Seven years and about $21 million dollars after completion of the IBMP, the goals of the plan have yet to be achieved. There is a solution to the current dilemma, however, but it is not being aggressively pursued under the current IBMP. The solution NPCA supports has four components.

Those components are:

1) Completing an agreement with the Royal Teton Ranch (RTR);
2) Establishing a brucellosis classification "sub-region" within the Greater Yellowstone Region;
3) Instituting spatial and temporal separation of cattle and bison; and,
4) Assuring the development of a safe, effective vaccine for livestock and bison.

All four elements are designed to protect the livestock industry while restoring critical bison habitats outside the park, thereby reestablishing a healthy, free ranging Yellowstone bison population. In and around Yellowstone National Park, we still have a chance to restore those habitats before our options close, as they have in so many other national parks across the country.

1) Assist with the completion of a grazing agreement with the Royal Teton Ranch.

Simply put, current bison management isn't working because the habitat currently available to bison is inadequate. Habitat is the key. For years, biologists have told us that the Royal Teton Ranch just north of the park is the lynchpin when it comes to access to key winter habitat.

Under direction from Governor Schweitzer, negotiations are underway to purchase the grazing rights of the Royal Teton Ranch, otherwise known as the Church Universal and Triumphant, and contractually allow bison to cross that private land to access significant public land winter habitat. The final proposition is the lynchpin to success on the bison issue.

The details of the grazing lease are still being worked out. It is critical that any agreement allow for adequate numbers of bison to use RTR lands and that the overall cost of the deal stays within reason, but assuming those two issues can be agreed upon, successful completion and funding of this agreement will be the most significant action to advance the bison issue in many years.

The agreement would be financed by federal, state and private funds. It is essential that sufficient dollars be appropriated by Congress to contribute to completing the grazing agreement.

2) Create in statute direction for establishment of brucellosis classification "sub-regions" within the Greater Yellowstone Region.

The USDA has classified Montana, Idaho, and Wyoming's livestock as "brucellosis free." However, if two cattle herds are found infected with brucellosis in a single small area of the state, the whole state is penalized and loses its "class free" status. This has happened in both Wyoming and Idaho over the past few years and these states have been required to take specific actions in an attempt to regain their class free status.

Some in the livestock industry have rightly questioned why an entire state should lose its status when brucellosis is detected in a small part of the state. NPCA agrees. Lost in the debate about bison is the little acknowledged but important fact that brucellosis resides in most wildlife species, including elk, which range across a much broader geographic landscape than do bison. Put in another context, eradication of brucellosis in all wildlife is simply impossible in the short term. But when it comes to bison, Congress can become a significant part of the solution by directing the USDA to create a brucellosis sub-region, or zone, in counties surrounding Yellowstone National Park.

A subzone that is managed for spatial and temporal separation that provides government assistance for fencing and vaccination of existing cattle herds within the sub-region and that looks to public lands for creative management and preference around wildlife would be a major step towards both protection of Montana's state cattle industry as well as reestablishment of a free-roaming bison herd. With the establishment of this subzone, in the unlikely event that two herds of cattle were found with brucellosis within this zone, all of Montana's cattle outside this zone would not be penalized by losing their brucellosis free status. This is a smart and essential strategy of containment and protection.

3) Institute spatial and temporal separation of cattle and bison as the primary short term means to address brucellosis.

Efforts relative to bison and brucellosis have largely focused on attempts to eliminate brucellosis. The fact is, even if agencies were 100% effective at eliminating the disease from bison, many other wildlife species also have brucellosis.

Recently the Western States Livestock Health Association, an organization of the western state veterinarians, has recently stated that the separation of livestock and bison is an essential component of any long-term solution. Montana's Governor Brian Schweitzer has said he agrees with this, as does NPCA. In the past, this separation was achieved through the slaughter of bison, but that is the most draconian and inflammatory of separation strategies. Many other approaches can be at least as effective. It's also important to preface these strategies with the reality that there are less than 500 cow-calf pairs occupying public lands on the north side of Yellowstone. On public lands adjacent to the park, spatial and temporal separation strategies include:

- Delaying by a few weeks the turnout date for livestock onto public land grazing allotments, which will eliminate any possibility of brucellosis transmission from a bison fetus to livestock;
- Adjusting livestock grazing allotments to accommodate for a steer operation, which would eliminate possibility of transmission;
- Employing creative fencing strategies that keep bison and livestock separated;
- Looking for opportunities to purchase, trade out or eliminate existing leases with willing permittees.

By providing the dollars needed to purchase or transfer grazing rights from willing sellers on these lands, critical winter habitat will be made available for bison through spatial and temporal separation.

4) Assure the development of safe, effective vaccines

Studies have shown that safe and effective vaccines can reduce brucellosis rates in bison. In addition, the implementation of a vaccination program in Yellowstone National Park would eliminate the requirement that all bison be tested for the presence of brucellosis before they leave the park.

We are not there yet when it comes to producing an effective vaccine that can be comprehensively administered to wildlife. Additional dollars are needed for research and science.

Equally important is the need to devote additional resources to develop a safe vaccine that could be administered to livestock. Obviously, it would be much more practical to administer a vaccine to livestock than to wildlife.

Conclusion

In conclusion, Yellowstone, our nation's first national park, is at a crossroads in terms of the long term viability of its, and America's, most iconic wildlife species. Central to their long-term survival is the recognition of and the protection of, habitats essential to free-roaming bison. We are already seeing what happens when such essential habitats are shut down, excluded and compromised in other parks around the country. When critical habitats are lost, the potential to use reasonable, appropriate means of managing wildlife can be vastly curtailed, with only the most unpleasant, inhumane and wasteful means remaining. We have a chance in Yellowstone now to demonstrate that we can realize a fully functioning park for bison, but realizing this opportunity will require prompt action.

Thank you for considering our views. I would be happy to answer any questions.

Mr. GRIJALVA. Thank you. Mr. Pacelle.

STATEMENT OF WAYNE PACELLE, PRESIDENT AND CEO, HUMANE SOCIETY OF THE UNITED STATES

Mr. PACELLE. Thank you, Mr. Chairman and thanks to all the members for being here. I am Wayne Pacelle, President and CEO of the Humane Society of the United States, representing 10 million members and constituents, 1 of every 30 Americans. A lot of people associate our work with domesticated animals and pets but we have a very robust wildlife department of about 20 folks, PhDs and other scientists in our section. We have been involved in this Yellowstone bison issue for two decades. I personally have been involved for that period of time. Our regional office in Billings, Montana has been actively involved.

I really do want to take the opportunity to thank Natural Resource Committee Chairman Nick Rahall for his tremendous leadership on the issue, the Interior appropriations amendments, to try to stop and abuse and mismanagement of the bison, and we are really grateful to you, Mr. Chairman.

You know this species is really the symbol of human's destructive capability. I mean you look at all the species in this country, and you just contemplate the idea 30 to 50 or even 60 million bison brought down in the span of just a few decades—once we developed the transcontinental railroad and the repeating firearm—to just dozens or hundreds of individuals. I mean the destructive capacity is extraordinary. We should not forget that as we delve into this debate and think about this issue.

The mistreatment and mismanagement of bison continues today. You have heard it from the prior two witnesses, and you have heard it from some of the others. This is a special population of animals. They have a special place in the country with Yellowstone as the world's first national park. They are a symbol of the west. They are an icon of western Americana. They are treated like shaggy members of a dispossessed cattle herd that are encroaching on adjacent and occupied cattle ranches.

The authorizing statute for Yellowstone calls for the protection of bison. Very strict protections in the enabling legislation. The lands that they principally move on outside of the Park—and it is just the small areas we heard. I mean the testimony from the Governor I thought was extraordinary. We are talking about just a small number of cattle principally moving onto Federal lands. This is just a small number of bison going onto Federal lands for the most part

with a very limited number of cattle in this areas that we can solve very readily. You heard the prescription here today.

The whole rationale here is brucellosis, and we have heard so much about it. We have heard so many times before that there has never been a documented case of brucellosis transmission from wild bison to cattle. This whole thing has been an exaggeration. It is a canard. This is a land use issue, and it is concern about the bison extending their range. It is not so much about brucellosis. There is a serious concern about brucellosis partly because of the USDA's very strict rules in this area, but we can solve this issue.

Just a couple of examples on this. We have heard that at least in west Yellowstone the cattle are not even there when the bison are there. There is no overlap, and we have just a small number of animals in the northern part of the Park and the northern reaches on forest land where you have year-round grazing. They said 300 was the number that was advanced near Gardner. We know that male bison cannot transmit brucellosis to cattle. Why are we killing the male bison? They do not abort fetuses. They do not leave placental materials. But this policy extends to every bison. Killing every one and not making any distinctions between which bison may pose some infinitesimal risk versus those bison that pose absolutely no risk at all.

We have also heard about inhumane treatment, and yes, those pictures we should really embed in our minds. The primary elements that concern us include animals being run to exhaustion, corralling that does not guard against bison goring each other in a panic, animals driven onto frozen lakes that results in their falling through the ice into frigid waters and freezing to death, mishandling that results in injury and death, overstocking transport trailers and shooting of bison at slaughter plants because the animals were allowed to inadvertently escape their holding areas.

You know we have in this country 100 million cattle. We are talking about 3,600 bison in America's first and most famous national park. The world's most famous national park. A lot of people talk about the economics. Well what about the economics of Yellowstone and this country? How many millions of visitors? This is one of the two or three more visited parks in the United States. Millions of people go there. Hundreds of millions of dollars poured into the economy to see the bison and to see the other native wildlife of Yellowstone National Park. These animals help bring millions to the economy of Montana as well as Idaho and Wyoming.

We can mitigate and correct our behavior. We can exhibit greater tolerance for these animals. We can recognize that these animals deserve a place in Yellowstone. They deserve a place somewhere at least in this country. Is there anywhere where we are not going to subvert the wildlife protection interest to cattle interest? Is there one place? Should it be in this area? A massive 2.2 million acre park where the animals are supposed to be protected with millions of acres of forests outside?

I want to just close by noting I first went to Yellowstone on the bison issue in 1988, and there was a hunt of the bison at that time. It was stopped, as Governor Schweitzer mentioned, and I watched these animals who had been habituated to a nonthreatening

human presence in the Park. People walk up to them and take pictures of them.

I saw them in these huge open areas feeding you know on the grass. They were burrowing in below the snow, and people walked up to these animals and shot them. It was the sorting equivalent of shooting a parked car. It was appalling, and I saw one 14-year-old shot an animal. I do not know why he did not get closer, but he was 200 yards away with his telescopic rifle, and he shot the buffalo, and he hit the buffalo in the spine, and the Boston Globe reporter and I who were there saw this animal try to raise himself more than 30 times.

He would pull himself up just a little. He was obviously paralyzed in the back legs, and he would fall down, and he kept doing it 30 or 35 times, and the Boston Globe reported that. I saw that cruelty, and I was appalled by it, and I think now we have a circumstance in this country where we can make a choice. Is there one place where we can protect these bison? One place in this country?

I thank Chairman Rahall for your leadership on this issue, and I hope we can solve this issue. We have heard constructive solutions today. We want to be part of that solution. They are there for us to realize. Thank you.

[The prepared statement of Mr. Pacelle follows:]

Statement of Wayne Pacelle, President & CEO,
The Humane Society of the United States

Thank you, Mr. Chairman, for the opportunity to testify on the subject of the Yellowstone bison. I am Wayne Pacelle, president and CEO of The Humane Society of the United States, the nation's largest animal protection organization with 10 million members and constituents—one of every 30 Americans. The HSUS has worked since its founding in 1954 to protect both domesticated animals and wildlife. We maintain a 20-person wildlife department with professional scientists and advocates and work on a wide range of wildlife programs.

I want to thank Natural Resources Chairman Nick Rahall for his outstanding leadership on this issue, twice going to the floor with amendments to the Interior Appropriations bills in 2004 and 2005 to mitigate harm to these animals. Further, I wish to acknowledge the leadership and support of Representative Maurice Hinchey, who along with former Representative Charles Bass, co-authored on legislation to diminish conflicts between people and bison and to prevent as much needless killing of Yellowstone bison as possible. I would further commend Representatives Jay Inslee and Corinne Brown, along with Chairman Rahall, for communicating concerns and questions to the National Park Service (NPS) and other agencies as more and more bison were hazed and slaughtered in recent years. Finally, I extend our strong appreciation to Subcommittee Chairman Raúl Grijalva for holding these oversight hearings and placing a spotlight on the tragic mistreatment of these majestic symbols of the West.

Since the early 1980s, The HSUS has been very active in wildlife issues in and around the Greater Yellowstone Ecosystem. We have submitted numerous public comments and provided testimony on behalf of the bison and we actively provide support to other groups locally involved in this issue. I have a long personal history with this issue, having gone to Yellowstone National Park (YNP) in 1988 to videotape the shooting of bison in the first "sport hunt" of bison that the state of Montana had authorized during the century.

Our regional office located in Billings, Mont. has actively participated in the Yellowstone bison issue for over a decade. Our regional director served on the Montana Governor's Humane Bison Handling Task Force in 1997, and our representatives conducted a corral inspection at South Creek in 2003.

Since then, we have continued efforts to provide oversight of bison management and secure more humane treatment of the bison. We have worked with both YNP staff and numerous environmental groups to seek non-lethal solutions to bison management. Most recently we met with Montana Governor's staff and state legislators

in an unsuccessful attempt to convince them that the expansion of a bison "sport hunt" was essentially a state-sponsored canned hunt of tame animals.

There is ample documentation that the treatment of bison in and around YNP is inhumane and unacceptable. The primary elements that concern us include animals being run to exhaustion, corralling that does not guard against bison goring each other in a panic, animals driven onto frozen lakes that results in their falling through the ice and into frigid waters, mishandling that results in injury and death, overstocking transport trailers, and shooting of bison at a slaughter plant because the animals were allowed to inadvertently escape their holding areas.

This deplorable set of circumstances reveals the clumsy and unprofessional handling of the animals by the state and the federal government. In short, these animals are handled like livestock rather than extremely powerful wild animals. There has been no government agency with central authority to take charge of this situation and eliminate the litany of problems associated with the mistreatment of these animals

History of Bison in Yellowstone

The history of America's treatment of the bison in the West is a painful and sad story of unbridled sport and market killing of these animals, and it provides a powerful case example of how destructive attitudes and technology can conspire to wipe out species thought to be super-abundant and inexhaustible. This species once roamed across much of the continental United States, from northern New York state to the Deep South in the east and as far west as Washington state north to Alaska and south into northern Mexico. There are even historical records of bison in the New Orleans area from the 1600s and early 1700s (Lowery 1981).

The estimated historic population of bison in the United States was 40—60 million animals. Due to market hunting and overexploitation for meat and hides in the 18th and 19th centuries, bison populations plummeted, particularly in the latter part of the 19th century. By the late 1800s, remnant populations were scattered across the country, most in captivity, consisting of perhaps just 1,000 animals. A handful of wild bison remained in YNP. The superintendent of Yellowstone in 1902 estimated that there were about 22 bison left in the remote Pelican Valley of the park.

Attempts were made to lure these remaining animals into enclosures using bait, but this failed. Amid growing fears that the last remaining bison in the Park would be lost due to weather, disease, or poaching, the park superintendent established an enclosed population from 21 animals purchased from herds maintained in Texas and Montana. This imported herd remained separate from the native Yellowstone herd until 1932 when the herds were allowed to intermingle. All of the bison in Yellowstone today are derived from that original founder population of 43 animals from Yellowstone, Montana, and Texas (Gates et al. 2005).

Bison in Yellowstone Today

Presently, the three bison populations inhabiting Yellowstone are maintained at a total population level between 3,000—4,000 animals. Yellowstone National Park is not an island of habitat, and it constitutes just 10 percent of the Greater Yellowstone Ecosystem (GYE). The GYE covers an area of 10.8 million hectares and represents the southernmost area in North America that sustains a full complement of native predators, including wolves that were recently reintroduced and have thrived in the park. This includes 2 national parks (Yellowstone and Grant Teton) that make up about 9.5% of this area while another 14.8% is designated wilderness areas. A total of 36% of the GYE is private land while 64% is public land (Noss et al. 2002).

Unfortunately, bison are not aware of the arbitrary human boundaries that separate YNP from the rest of ecosystem. Bison are obligate grazers and as such need access to forage throughout the year. Although animals may survive on fat stores during times of deep snow fall, bison cannot survive the winter and spring without access to range without enormously deep snow cover. During or after harsh winters bison will wander to lower elevation, sometimes across the park boundaries, in search of food and milder weather conditions (Meagher 1989).

Under current regulations, bison that cross the park boundary are either hazed back into the park or shot. This policy has resulted in nearly 5,000 animals being killed in the last 12 years, with more than 1,000 slaughtered in the winter and spring of 2005—2006 alone (Buffalo Field Campaign 2007). The primary reason given for this killing is the threat of disease transmission between bison and cattle, particularly the bacterial infection brucellosis.

Brucellosis, bison, cattle, and elk

Brucellosis is caused by a bacterial zoonosis whose symptoms have known to medicine since the 3rd century BC (Cutler et al. 2005). Various strains of brucellosis may infect a wide range of mammals including humans, rodent, marine mammals, ungulates, goats, sheep, and pigs. Pathology in humans includes a suite of flu-like symptoms that may persist for years or even decades. These symptoms may be so severe that the bacterium that causes brucellosis in pigs (Brucella suis) was developed as a biological warfare agent by the United States (Greenfield et al. 2002).

The species that infects cattle and other ungulates is Brucella abortus. While humans may contract this disease through the consumption of unpasteurized dairy products from infected cattle or goats, or inhalation of the bacterium or contact with infected tissues including the consumption of raw meat, concerns with bison and brucellosis are centered on possible transmission to cattle, not humans.

Brucellosis infection in ungulates may cause the abortion of fetuses, temporary sterility, and occasionally calf mortality (Reynolds et al. 2003). Before considering the factors that make brucellosis transmission from bison to cattle extremely unlikely, we must consider how bison came to be infected with this pathogen in the first place.

As mentioned, the symptoms of brucellosis in humans have been known for millennia and were recorded in ancient Greece; hence it is obvious that this disease was known in the Old World. An examination of the evolutionary history of bison and B. abortus in addition to this disease's animal hosts, genetics, and biochemistry has revealed that this pathogen was introduced to the New World as an infection of domesticated cattle. Further examination of historic documents also revealed that ranched bison in Yellowstone most likely contracted the disease from cattle being kept in the park by employees sometime around 1917, when the first recorded abortions of bison occurred (Meagher and Meyer 1994). This disease and its symptoms in bison were never recorded or mentioned by Native Americans or European Americans anywhere on the continent before the incidents in 1917. In the analysis cited (Meagher and Meyer 1994), they analyzed the possibility of disease transfer through cattle fostering of bison calves yet concluded this means of disease transfer to be unlikely because the milk feedings occurred about 13 years before brucellosis was ever detected in bison.

While transmission of brucellosis from bison to cattle can occur, as proven under controlled, experimental conditions (Davis et al. 1990), the chance of this actually happening under natural conditions is remote indeed, and there has never been a documented case of brucellosis transmission from bison to cattle in the wild. In fact, the origins of this disease in bison appear to be a result of forced proximity to cattle.

Under unmanaged conditions, bison and cattle are generally separated spatially and temporally and thus are unlikely to come into contact with each other, especially during the period of time when female bison are giving birth or when livestock may otherwise come into contact with potentially infectious materials. In fact, existing cattle grazing allotments bordering the Park are not utilized at a time when elk or bison are calving and thus may potentially abort. Hence, cattle are not present at an appropriate time or place for exposure to brucellosis from bison or elk (Thorne and Kreeger 2002).

Although the USDA may claim that bison are more likely to pass brucellosis to cattle than are elk due to their gregarious nature, this argument does not apply in the area around Yellowstone where elk are artificially concentrated over food. In fact, this feeding practice is recognized as the primary reason that elk can successfully serve as a reservoir for B. abortus (Godfroid 2002). In fact, elk that had been congregated around feeding stations have been implicated in the most recent transmission of brucellosis to cattle from wildlife in Idaho (USDA website). As of this winter, nearly 7,000 elk were counted in the northern region of the Park and across the border on adjacent lands (Yellowstone National Park 2007). The park estimates that at least 15,000 elk winter within the park with nearly 30,000 present within its borders during the summer (YNP website).

Considering that the vast majority of cattle in the GYA area are vaccinated against brucellosis as calves and the chance of transmission from bison is highly improbable, the policy to test and vaccinate wild, free-ranging bison simply does not make sense. It is a severe overreaction by state and federal authorities who disregard the public's interest in balancing concern for livestock production with the imperative to protect wildlife in the America's first and most famous national park. Such actions can be equated to combating rabies in pet populations by attempting to test and vaccinate free-ranging bats, foxes, skunks, and raccoons. In both of these cases, the financial and logistical costs of such actions, in addition to the excessive stress caused to these animals, far outweighs the infinitesimal risk of actual disease transmission. It is a radical overreach, and it should be discontinued.

Current Treatment of Bison in Yellowstone

The NPS, USDA and its Animal and Plant Health Inspection Service (APHIS), the U.S. Forest Service, and the State of Montana completed an Environmental Impact Statement for the Interagency Bison Management Plan for the State of Montana and Yellowstone National Park in November 2000. Under this plan, animals within the park boundaries are subject to capture, testing, and vaccination for brucellosis. If animals test positive, they are shipped to slaughter. If animals leave the park, efforts are made to haze them back into the park. If these efforts fail, the state allows hunters to shoot the animals.

The Yellowstone bison roam a unique ecosystem and are one of the few remaining bison herds that is not known to have ever been interbred with cattle. Moreover, these are large, powerful wild animals that are not accustomed to close human contact and hence will make all efforts to avoid capture. Forcing these creatures into pens and into restraints is excessively stressful and may jeopardize the survival of young animals subject to unnecessary handling.

As mentioned, the bison that cross the park boundary are subject to hazing and killing. The animals that venture outside of YNP are not in any real danger of coming into contact with cattle. Additionally, federal and state authorities do not just target females, but also male bison, despite the fact that these animals pose absolutely no risk of transmitting brucellosis to cattle. They do not have placental material, and therefore pose no risk of transmitting brucellosis to cattle. In contrast, the elk that roam throughout Forest Service grazing allotments outside of Yellowstone are not subject to such a severe no-migration policy even though they are known to carry brucellosis. This inconsistency is very difficult to reconcile—one wildlife species that does demonstrate an exposure to brucellosis is allowed to range freely outside of YNP, and the other species with brucellosis exposure is subject to a strict no-migration policy.

The livestock industry would just as soon see no large ungulate populations, or wolves, outside of the park, since any ungulates competes for grass during a small portion of the year with cattle. That is the subtext for this controversy. But the elk have a stronger political lobby of hunters and wildlife watchers and the task of eliminating them from Forest Service lands would be a very difficult political and logistical exercise. They have instead chosen to draw the line with bison and do not want to see any competition from this species. The brucellosis issue is at worst a red herring, and at best an overblown overreaction by the livestock industry.

What should be done

Bison are large roaming ungulates that require vast tracks of land with suitable forage to exist and flourish. While there are an estimated 200,000 to 300,000 bison living in North America today, the vast majority of them are in a semi-captive state. Best-guess estimates conclude that there are only about 12,000-15,000 free-roaming bison left on the continent. In comparison, according to the National Agricultural Statistics Service, there are nearly 100 million cattle living in the United Stats at present a number which meets or exceeds the historic numbers of bison estimated to have inhabited the whole of the North American continent.

The Yellowstone bison draw to tourists from around the world that seek to experience the wild character of the unique GYE landscape and its robust complement of native wildlife species. Is there one place in our nation where we can allow them to roam, or must we subvert bison protection to cattle interests in every single ecosystem in the United States?

Bison should be permitted to traverse the borders of Yellowstone in search of food in the winter and early spring. There is no biological, ecological, or even economic reason why these animals must be corralled in Yellowstone National Park and treated like a group of shaggy, unowned cattle. The animals roam principally on America's public lands, and they deserve protection.

Thank you for the opportunity to testify

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NOTE: Additional information submitted for the record by Mr. Pacelle have been retained in the Committee's official files.

Mr. GRIJALVA. Thank you. Mr. Hagenbarth.

STATEMENT OF JIM HAGENBARTH,
MONTANA STOCKGROWERS ASSOCIATION

Mr. HAGENBARTH. Mr. Chairman and members of this Subcommittee, my name is Jim Hagenbarth. As a representative of my family and of the families of the Montana Stock Growers, I thank you for this opportunity to testify in regard to the disease and landscape issues that impact Yellowstone National Park, the greater Yellowstone wildlife populations and especially the landscape.

The testimony I submit today is taken from years of livestock experience and generations of resource management. Our family's history in this region began in the 1860s with gold fever and progressed to livestock production in the 1880s. Today my brother, my son and myself take pride in managing portions of this same landscape. Hopefully my testimony will provide insight to this committee on facilitating responsible management of the resources in this area under your control.

Brucellosis is an intercellular bacterial disease affecting animals and humans. It has taken 50 years and a $3 billion battle for APHIS and the livestock industry to eradicate brucellosis from the cattle herds of America. By using a marginal vaccine and an iron will, a will that was tempered by setbacks due to the enormity of the task and the resilience of this disease, the nation's cattle herd has become brucellosis-free.

The lessons learned from this experience and the emotional scars left by the losses incurred has led to the tenacity displayed by APHIS and the livestock industry in attempting to manage diseased wildlife in the greater Yellowstone area. It is understandable that the general public and possibly this committee does not comprehend the seriousness of our dilemma in Yellowstone.

Brucellosis in Yellowstone was first recorded in bison in 1917 and in elk in 1935. This disease was controlled in the Park until a nature regulation policy was adapted in 1967. Under this policy the brucellosis exposed populations of wildlife in the greater Yellowstone area have increased to the point that this area's livestock industry is in jeopardy. It is unimaginable that a policy in Yellowstone has enhanced an exotic disease that has held bison captive to either starve in the Park or leave and be slaughtered.

Montana has received a black eye because we accept our obligation to society to be a responsible resource and wildlife manager. In the west ranchers' ability to harbor open space is much more important to society than the production of food and fiber. Brucellosis in wildlife in the greater Yellowstone area has the potential to drive economically viable ranching interests out of business. We must design a long-term plan to meet this challenge.

Time is running short yet science is developing new tools that will give us different alternatives in eradicating disease. We need to gather all the involved interests in order to reach our goal. If we fail, if we fail, the GYA will be fragmented beyond recognition because as we lose the rancher the last crop planted will be a subdivision. Thank you.

[The prepared statement of Mr. Hagenbarth follows:]

Statement of James F. Hagenbarth,
Representing the Montana Stockgrowers Association

My name is Jim Hagenbarth. I am thankful to the Committee for the opportunity to testify on behalf of my family and the Montana Stockgrowers Association, one of the oldest livestock associations in the United States and offer you insight into the issues that involve the "Yellowstone National Park Bison". My brother, son and I own and manage a livestock operation in southwestern Montana and southeastern Idaho. This business was put together from scratch in the late 1930's by my Father after he completed the dispersal of my Grandfather's failed livestock holdings in the same area in the early 1930's. Our family's history in the Greater Yellowstone Area (GYA) began in the 1860's in the goldfields of southwestern Montana and southeastern Idaho. As the gold disappeared, development of a livestock enterprise began in the early 1880's and we still manage portions of the same land resource. In 1904 my grandfather, Frank Hagenbarth, had a survey made of the Targhee Forest and sponsored this area as a National Forest to President Theodore Roosevelt and the President promptly set aside the Targhee as a National Forest. The majority of the Targhee lies in the GYA and borders the west boundary of Yellowstone Park. We take great personal pride in the land resource that we manage and hopefully my testimony will provide insight to this committee on facilitating responsible management of the resources in this area under their control.

The geographic location of our livestock operation requires movement of cattle across state lines. This movement subjects our herd to the animal health requirements of both Montana and Idaho and at times the federal regulatory authority of the United States Department of Agriculture's Animal Plant Health Inspection Service (APHIS), depending upon the livestock disease status of both states. I have been actively involved in the development of these regulations due to their potential impact on our business. This participation placed me on the Montana Board of Livestock from 1985 to 1997. During this time the brucellosis exposed bison from Yellowstone Park were migrating into Montana during the winter and the foundation was being laid for the development of the Interagency Bison Management Plan (IBMP). Due to the devastating impacts brucellosis exposure could have on our operation and interstate movement of our livestock, I studied every aspect of this disease and it's far reaching implications. The information I have assimilated over the years and the experiences of being involved are the sources from which my testimony is drawn.

Yellowstone National Park (YNP) was established in 1872 and wide-spread hunting occurred until 1883. The earliest population estimates were 600 bison in 1880 and 300 in 1892. I am not sure if bison were native to the Park or if these remnant populations were forced there by hunting pressure on the plains. In 1902 Congress

appropriated funds to save YNP bison from extermination. Fewer than 50 wild bison remained in the Park and the herd was augmented with 21 bison from semi-domesticated herds in Montana and Texas. These introduced bison were maintained in enclosures initially at Mammoth and then at the Buffalo Ranch in the Lamar Valley until 1952. Periodically there were some wild calves added to the ranch herd and some ranch herd bison released to the wild. In 1917 tests indicated brucellosis infection in bison at the Lamar Buffalo Ranch. From 1925-1967 bison management emphasized restoring bison to previous ranges in the park and population control with a range-based carrying capacity of 425 bison. Periodic culling occurred either through capture and shipment or shooting. During this period more than 9000 bison were removed by management actions. The largest population of 1,477 head occurred in 1954. In 1967 YNP began a policy of natural regulation for bison and the actual count was 397. From 1967 until the IBMP was finalized in December of 2000 a series of federal, state and joint management plans were used to control the winter migration of brucellosis exposed bison from the Park. Some of the removal was accomplished through hunts authorized by the Montana legislature. In 1985 Montana's cattle herd became brucellosis free. In 1991 the Fund for Animals asked the U.S. District Court for injunctive relief to stop the harvesting of bison outside park boundaries. Injunctive relief was denied. In 1994 several states required additional testing requirements for exported Montana cattle due to the disease risk of disease exposed and seropositive bison outside YNP. In January of 1995 Montana filed a complaint in the U.S. District Court against the federal government, related to Department of Interior policies that caused diseased and diseased-exposed bison to enter into Montana and Department of Agriculture policies that might revoke Montana's brucellosis-free certification based on the mere presence of diseased wild bison in the State. In November of 1995 the U.S. District Court accepted the settlement agreement submitted by Montana, the federal government and the Royal Teton Ranch. Among the provisions of the settlement was a schedule for completion of a long-term management plan and Environmental Impact Statement (EIS); and, concurrence that bison management, according to the provisions of the settlement, is consistent with Montana's brucellosis-free status. In December of 2000 the IBMP was completed and dictates how bison are to be handled as they leave YNP. The plan manages the risk of brucellosis transmission from bison to cattle through area-specific strategies to maintain temporal and spatial separation between bison and cattle. This plan includes vaccination protocols appropriate for both bison and cattle. This plan is very specific as to areas (zones) where specific numbers of bison can be outside the park. This plan is adaptive and changes can be made where sound scientific research indicates that the risk of transmission is acceptable to the Montana State Veterinarian in consultation with APHIS. Provisions are made in this plan that outlines the consequences of parties not living up to their commitments. In March of 2006 the Western States Livestock Health Association (an association of state veterinarians) passed a resolution reminding the GYA states of Idaho, Montana, and Wyoming that temporal and spatial separation must be maintained between infected elk/bison and cattle. Future communications to the states clarified that compliance with the IBMP will allow the states to retain their status, but failure to do so may require the western states to consider additional requirements and sanctions upon the GYA states. In the last couple of years Wyoming and Idaho have had cattle exposed and infected with brucellosis through contact with infected elk, not bison. Both states lost their brucellosis free status and had to go through testing procedures and re-certification by APHIS. Wyoming has since regained brucellosis free status and Idaho is under review.

When eradicating brucellosis from YNP bison was being discussed in the early 1980's, it was the general consensus that if the bison became disease free, brucellosis would not sustain itself in the wild elk herds. This does not seem to be the case now. Eighty percent of the elk population in Wyoming is dependent upon winter feed grounds. These elk are being fed to either give them subsistence because of lack of native winter range to sustain the current numbers or keep the elk from using livestock feed lines and exposing cattle to brucellosis. There are twenty plus feed grounds in Wyoming and the incidence of disease vary between areas, but it can be as high as twenty percent seropositivity. Congregating elk on winter feed grounds exposes large numbers of animals to disease due to abortions of infected females. The aborted fetus and birthing fluids and membranes pose the greatest risk of infection with this disease. Some feeding of elk in southeastern Idaho occurs because of loss of winter range to development, elk populations wintering in non traditional areas, and strategic feeding to keep separation between elk and livestock. Feeding of elk by any entity other than the Fish and Game department is illegal. In Montana feeding of wildlife is illegal. Due to displacement of some elk by development and large numbers, wintering herds are growing and concentrating on win-

ter ranges in southwestern Montana valleys. This is causing concern because the concentration of elk during this period exposes more numbers of the herd to disease. Predation and harassment of elk by wolves has impact on the behavior of elk. In Wyoming wolves are moving elk off feed grounds into nontraditional poor winter ranges or close to cattle feed lines. In Montana wolves are concentrating elk into large herds and often close to the valley floors where livestock reside. Management of these herds is becoming more difficult and brucellosis will sustain itself in these populations, regardless of the brucellosis in the bison. Consequently, brucellosis eradication in the GYA includes YNP bison and many of the elk herds in the GYA states that are exposed. The brucellosis infection of cattle from elk in Wyoming and Idaho is testimony that elk are a real threat and need to be dealt with. The fact that cattle have not been infected by infected park bison relates to the efficacy of the IBMP.

Brucellosis is an infectious and contagious intracellular parasitic bacterial disease of animals and humans. It was first recognized in the Mediterranean area and was at first thought to be an exotic form of typhoid fever. In 1886 a British surgeon, Sir David Bruce, first isolated the bacteria from the spleen of a human fatal case. In 1887 Bernard Bangs, a Danish physician, found cattle to be reservoirs of undulant fever which was causing abortion in dairy cattle. Brucellosis was undoubtedly introduced to America via livestock brought by the early explorers and settlements. Brucella abortus, the species most commonly associated with brucellosis in cattle in the U.S., causes abortion, dead or weak calves, reduced milk yield, lower weaning weight, and lowered fertility. In humans, Brucella abortus causes undulant fever, a disease characterized by intermittent fever, headaches, fatigue, joint and bone pain, psychotic disturbances and other symptoms. It is contracted through exposure to infected animals and their products. Livestock and slaughter industry workers and consumers of non pasteurized milk products have typically been at highest risk of contracting the disease. Cases have decreased as brucellosis eradication in domestic livestock has progressed and dairy products were pasteurized. Two of the last cases in Montana involved hunters that contracted brucellosis from dressing cow elk during a late season elk hunt northwest of YNP in the Ennis, Montana area.

Since the cooperative State-Federal program was begun in 1951, approximately $3.5 billion in State, Federal and Industry funds have been spent on brucellosis eradication. Using surveillance, vaccination, quarantine, herd management, and herd depopulation with indemnity payment, the program has been successful in reducing the number of known infected herds from 124,000 in 1957 to 0 at this time. Texas and Idaho are in the process of applying to APHIS for reinstatement of their class free status classification. After 50 plus years of experience in eradicating this disease in cattle and the availability of a vaccine that is only 70% efficacious, APHIS and producers have recognized that whole herd eradication is the preferred method for domestic livestock. The nature of the disease and the poor immune response of its host to vaccination render mitigation through risk management a dangerous alternative to depopulation. Latent infections have often caused major setbacks in eradication efforts. Most producers who have not dealt directly with eradication efforts and practically all other publics do not understand the tenacity displayed by APHIS and state veterinarians when asked to allow risk management strategies other than depopulation and total eradication. Only with the development of more efficacious vaccines that can be delivered orally or injected, will brucellosis be eradicated from the elk and bison that are infected in the GYA.

In a brucellosis class free state, contracting brucellosis in any domestic livestock herd will automatically require depopulation. If two herds are found infected in a state, the state loses its class free status and must meet APHIS testing protocols of large populations of test eligible animals to regain their status, not to mention the testing of all test eligible cattle that are exported out of state. It took 30 years of testing and 33 million dollars for Montana to achieve its brucellosis free status in 1985. In the early 1990's a wildlife outbreak in Wyoming cost the Parker Ranch 1.1 million dollars for loss of cattle, out-of-pocket costs and loss of future earnings. Since 1970 our business has spent over 260 thousand dollars vaccinating and testing for brucellosis and we have never had the disease. The Market Cattle Identification (MCI) trace back program requires every sexually intact female over two years of age that is processed at a federally inspected packing plant to be tested. This program is an excellent surveillance tool to identify any outbreak of brucellosis that may occur nationally. APHIS and the livestock industry have expended millions of dollars and have exerted tremendous effort while enduring much pain and agony eradicating brucellosis from our domestic cattle herds. The livestock producers in the GYA that are being exposed to infected elk and to YNP bison, if the IBMP is not adhered too, are very apprehensive that we can withstand the challenge that brucellosis infected wildlife presents. We need help from the scientific and research

community to develop more efficacious vaccines that will eradicate this disease from the wildlife in the GYA and effectively protect our domestic livestock herds. There must be population control through hunting and or other methods (birth control) if brucellosis is to be contained and eventually eradicated from the elk in the GYA and the bison in YNP. For the Secretary of the Interior to not allow population control of bison in YNP and the Park Service to use a natural regulation policy to hide behind in managing a bison herd that is infected with an exotic zoonotic disease that serves as the host for infection of elk and livestock in the GYA, is irresponsible and unimaginable. By not accepting their responsibility of population and disease management, the Department of Interior (DOI) and YNP are sentencing the YNP bison to the option of starving to death in the park or facing harassment, testing, and slaughter because they carry a disease that threatens other wildlife, livestock and the integrity of the landscape in the GYA. Due to geography and how the bison migrate, the current and past Governors of Montana, the Montana Stockgrowers Association, the Montana Board of Livestock, and APHIS have taken a stand against this disease and have gotten a black eye because we recognize the impacts this disease can have. If we cannot eradicate this disease, the livestock production from the GYA states will be discounted by those states and countries we export to, severely impacting our industry. This could also become a trade issue and used as leverage against us in the international market place for our healthy and wholesome cattle and beef products.

The landscape in the GYA is changing. Urban America has fallen in love with the open spaces of the rural west. The ranching and farming community accepted the challenge of the Homestead Act and other legislation that allowed us to settle the west and develop the infrastructure that supports what we now have. This job must have been well done because everyone is seeking the open space we nurtured. It is quickly becoming apparent that the livestock industry's value to society is the preservation of open space, rather than the production of food and fiber. The private land that was homesteaded has some of the best water and soils and provides some of the most productive wildlife habitat in the GYA. The cumulative effects of the abuse of the Endangered Species Act (ESA) to change land use, bureaucratic nightmares involving government programs along with air and water quality laws, planning and zoning, estate taxes and just the challenge of managing a private business in America today is about to take its toll. The inability of the current players involved to find solutions to the disease and population issues in the bison and elk in the GYA may very well be lead to the demise of the ranching community in the GYA. One must recognize that the last crop harvested by a rancher in the GYA will be a subdivision. This development in the GYA will fragment the landscape and destroy the wildlife habitat that makes this area important to society today and tomorrow. We must not venture down this path. Just visit Jackson Hole, Wyoming, or the Teton Basin in Idaho or the Madison Valley in Montana and you will get a feeling for what is coming if we lose the working ranch community.

I have served on three consensus groups in the last fifteen years dealing with resource and watershed issues. In these groups all interests are represented and their concerns are understood. In every instance we have been able to find a solution that enhances the resource or species of concern and satisfies all interests. This process is time consuming and difficult, but once one begins listening to and trusting each other, positive solutions are produced. In talking with the scientific community, great strides are being made in disease control and tools are becoming available that will help us achieve brucellosis eradication the GYA elk and bison herds. We need all the interested parties to join together to design a long term plan with solid intermittent steps to achieve the eradication goal. The stakes are too high to proceed down the path we are going. The loss of the livestock on our western ranges is insignificant compared to the loss of the men and women who own and manage these ranches and have the knowledge, fortitude and love of the land to keep it productive, sustainable and open. If we lose this culture, the GYA and its wildlife habitat and openness will be fragmented beyond recognition. The bison has become a symbol of the American west. How appropriate it would be to start with the YNP Bison in finding solutions that will stop this disease that is threatening to take all that we have worked for. This can be done and must be done and we need the help of our new neighbors and friends that have come west to seek the same values and opportunities that lured our predecessors out of the nest. It is time to go to work.

Mr. GRIJALVA. Thank you. Dr. Kay.

STATEMENT OF DR. CHARLES KAY, UTAH STATE UNIVERSITY

Mr. KAY. I would first like to thank the Chairman and the Subcommittee for inviting me to testify here today. My PhD is in wildlife ecology, and I am presently associated with the political science department at Utah State University. I spent more than 20 years studying in Yellowstone National Park. I have also done extensive research for Parks Canada in the southern Canadian Rockies.

Yellowstone is presently managed under what is termed natural regulation. This though is more than simply letting nature take its course for it entails a specific view of how nature operates. According to the Park Service, predation is an assisting but nonessential adjunct to the regulation of bison and elk populations. Instead, ungulates are limited by their available food supply, termed resource or food limited. The Park Service contends that ungulated populations well self-regulate without overgrazing the range.

This means that wolves and other predators only kill the animals slated by nature to die from other causes and thus predation has no effect on elk or bison numbers. Under natural regulation the Park Service claims that thousands of bison and elk have always inhabited Yellowstone. The Park Service also contends that present conditions in Yellowstone are similar to those in the past. Now if this were true then earlier explorers should have found Yellowstone teaming with wildlife and the range should be as overgrazed in the past as it is today.

Historical data however paint an entirely different picture. As part of my research I have conducted a continuous time analysis of all first person historical accounts of Yellowstone exploration. Between 1835 and 1876, there were 20 different expeditions. They spent 765 days in the ecosystem on foot or horseback. They saw bison only three times, none were in the present confines of Yellowstone Park.

Today there are approximately 4,000 bison within the Park as well as an estimated 100,000 elk in the ecosystem yet those same explorers reported seeing elk only once every 18 days, and their journal contained 45 references to a lack of game or shortage of food. In addition, none of the early explorers—and I emphasize none—reported seeing or killing a single wolf, another indication that ungulates were rare and present conditions are entirely outside the range of historical variability. Similarly, archeological data indicate there are more bison and elk in Yellowstone today than any point in the last 10,000 years.

Why are bison leaving the Park? According to the Park Service, bison are leaving the Park today are simply following historic migration routes down the Madison River Valley to the west and Yellowstone River Valley to the north.

Interestingly, however, that is not what the Park Service said in 1973 when the agency formulated its natural regulation program, and I would refer the committee members to attachment eight of my testimony. This is from the Park Service scientific monogram in 1973 that laid out the whole natural regulation paradigm for bison. You will see there is no bison movements either to the north, down the Yellowstone River Valley or to the west, down the Madison River Valley.

In that document as well as other earlier documents the Park Service said that Yellowstone's bison population would naturally regulate at 1,000 to 2,000 animals. As we all know that has not proven to be the case. The Park Service has since suggested that the reason the bison population has grown beyond the numbers the agency predicted was because the Park roads have improved to facilitate over-the-snow vehicles during winter, and this is what started the whole snow machine debate.

It has been hypothesis that the use of snowpacked roads reduced the energetic cost of bison moving through deep snow and opened new areas to bison foraging which in term allowed bison numbers to increase. Recent research, however, has shown that hypothesis to be false, and the National Academy of Science has concluded that grooming Park roads has had nothing to do with the increase of bison above earlier predictions.

As bison numbers have grown, the animals have steadily overgrazed the range. It should come as no surprise then that bison are simply leaving Yellowstone Park and the animal is looking for something to eat. As explained in a recent book called Yellowstone's Destabilized Ecosystem, this is the latest word on whether the Park is grazed or overgrazed, published by Oxford University Press, one of the leading publishers of the scientific book. It is a synthesis of all the research that has been done in Yellowstone Park. Not only is it seriously overgrazed but natural regulation is a failed management philosophy.

Not only has Yellowstone's bison population not self-regulated as earlier predicted by the Park Service, no ungulate population anywhere in the world has self-regulated without first causing extensive resource damage. Instead, the natural state of the Yellowstone ecosystem included native hunters who kept bison and other populations at very low levels and actually promoted biodiversity. Native people, not wolves, were the system's keystone predator, and it was not until native populations were decimated by European introduced diseases and the survivor was banished from Yellowstone with the second superintendent Norris that bison elk populations erupted to unnatural levels.

So what then is the solution to the bison overpopulation problem? I suggest that Congress revisit the treaties of 1851 and 1868 which predate the establishment of Yellowstone Park and under which various tribes already claim hunting rights in Yellowstone. The previous Park Service witness said that they had no hunting rights in the Park. My understanding is that is not what the native people think and Congress may want to revisit that issue.

Thus one way to reduce overgrazing and to keep bison from leaving the Park would be to honor the United States' previous commitment to Yellowstone's original owners and allow them to hunt in the Park. After all, aboriginal hunting has been a natural ecosystem process for more than 12,000 years, and as such is in keeping with the Park Organic Act and subregulations to maintain natural conditions.

For how this might be accomplished, I suggest we look to our northern neighbors. Parks Canada has the most stringent environmental protective statutes of any park service in the world for they added an amendment to their organic act which says that ecologi-

cal integrity shall be given first priority in all management tools. Shall not will or may. Shall mandates compliance. There is no wiggle room for the government bureaucrats.

So based on extensive archeological research, Parks Canada has developed ecological integrity standards that include both native hunting and native burning. First Nations are already allowed to hunt in various Canadian national parks and are the bison restoration program that I have been involved in in Banff National Park, First Nations will be allowed to hunt bison in the park to maintain ecological integrity. Native hunting will be used to prevent bison from leaving the park as well as to prevent overgrazing.

Parks Canada is also working out a directive to allow First Nations to hunt elk and other animals in national parks to prevent resource damage from unnaturally high ungulate populations. Again, we must remember that parks with native hunting are natural and parks without native hunting like Yellowstone are entirely unnatural and totally outside the range of historical variability.

Would not giving bison additional land outside Yellowstone solve the problem? Unfortunately inadequate land has never been the problem. Instead the present situation is a direct route of natural regulation management under which the Park Service assumes that bison will self-regulate, and that predation including that by native people is unimportant to limit the ungulate numbers.

No matter where the line is drawn under natural regulation, bison will continue to increase until they are forced by overgrazing and starvation to again cross that line. In fact, giving the bison more land will only make situation worse. OK. For the sake of argument, say that bison are given all the last west of Yellowstone Park and the Madison drainage down to Quake Lake or however far you want to go down. OK.

While to the north bison are given all the land down the Yellowstone River down to the Yankee Jim Canyon or maybe halfway to Livingston, if that is your view. Would not that solve the bison problem? It might for a few years. OK. But during some future winter instead of 5,000 bison coming out of the Park, we would have 10,000 or 15,000 bison heading for Ennis, Livingston and Helena, and the bison would still be infected with brucellosis. This would mean killing even larger numbers of bison or never ending calls for additional land.

Moreover, this option has already been tried, and it has been a dismal failure. In 1932 land was added to Yellowstone Park in an attempt to solve the elk over population problem. This is called the boundary line addition, and is now one of the most overgrazed areas in the Park. It did not work then, and it will not work now.

It is also likely that bison will start summering on any new range as has happened in other bison population build-ups. I mean if you do not harass those bison off those areas, they are going to just move to them.

Mr. GRIJALVA. Dr. Kay, if you could wrap it up.

Mr. KAY. Yes.

Mr. GRIJALVA. The grace period that other people had has already passed.

Mr. KAY. After all, once bison summer on the northern great plains, there is no biological reason for them to move back into Yellowstone. Thank you very much.

[The prepared statement of Mr. Kay follows:]

Statement of Charles E. Kay, Institute of Political Economy, Utah State University, Logan, UT 84322-0725

I would first like to thank the Chairman and the Subcommittee for inviting me to testify here today. I have a B.S. in Wildlife Biology and a M.S. in Environmental Studies both from the University of Montana, and a Ph.D. in Wildlife Ecology from Utah State University. I am presently an Adjunct Associate Professor in the Department of Political Science and a Senior Research Scientist at that University's Institute of Political Economy. I am the only independently funded scientist to have conducted a detailed evaluation of Yellowstone Park's "natural regulation" program. Not only have I conducted scientific research on the overgrazing question, but I have also studied the bison problem, wolf recovery, grizzly bear management, and other key issues in that ecosystem. I have also traveled widely throughout the West and am familiar with similar resource management problems in other national parks. For instance, I have conducted extensive research in the southern Canadian Rockies for Parks Canada. This included work in Banff National Park on bison reintroduction. I am also one of the leading experts on aboriginal influences and the original state of nature.

My research in Yellowstone and Canada has been widely published in books and scientific journals and I have submitted copies of those papers to the committee's staff. I have previously testified before this Subcommittee on "Science and Resource Management in the National Park System" and I have testified before the House Subcommittee on Forests and Forest Health on "The Decline of Aspen in the Western United States."

Yellowstone is a great national treasure, but as the Subcommittee that oversees national parks, you face many difficult issues—such as, Why are bison leaving Yellowstone Park? Will giving bison additional land outside Yellowstone solve the problem? and, Is there a solution to the brucellosis issue? I will address each of these, in turn, but first some background information.

Yellowstone is presently managed under what is termed "natural regulation." This, though, is more than simply letting nature take its course for it entails a specific view of how nature operates. According to the Park Service, predation is an assisting but nonessential adjunct to the regulation of bison and elk populations. Instead, ungulates are limited by their available forage supply-termed resource or food-limited. The Park Service contends that ungulate populations will self-regulate without overgrazing the range. This means that wolves and other predators only kill animals slated by nature to die from other causes and thus, predation has no effect on bison or elk numbers. In the debate over reintroducing wolves, the Park Service has denied that wolves are needed to control elk or bison populations in Yellowstone Park. Moreover in the current effort to remove wolves from the Endangered Species List, the Park Service and the U.S. Fish and Wildlife Service deny that wolves have had or are having any major impact on ungulate populations anywhere in the West, including Yellowstone. Thus, if you think predators limit ungulate numbers, then by definition, you do not believe in "natural regulation."

Under "natural regulation", the Park Service claims that thousands of bison and elk have always inhabited Yellowstone. The Park Service also contends that present conditions in Yellowstone are similar to those in the past. Now if this was true, then early explorers should have found Yellowstone teeming with wildlife, and the range should have been as overgrazed in the past as it is today. Historical data, however, paint an entirely different picture.

As part of my research, I have conducted the only systematic, continuous-time analysis of first-person journal accounts of Yellowstone exploration. Between 1835 and 1876, 20 different expeditions spent a total of 765 days in the Yellowstone ecosystem on foot or horseback, but they reported seeing bison only three times, none of which were in Yellowstone Park itself. Today there are over 4,000 bison in the park, as well as an estimated 100,000 elk in the ecosystem. Yet those same explorers reported seeing elk only once every 18 days and their journals contain 45 references to a lack of game or shortage of food. In addition, none of the early explorers reported seeing or killing a single wolf—another indication that ungulates were rare and that present conditions are entirely outside the range of historical variability. Similarly, archeological data indicate that there are more bison and elk in Yellowstone today then at any point in the last 10,000 years.

Why are bison leaving Yellowstone Park?

According to the Park Service, bison that leave the park today are simply following historic migration routes down the Madison River to the west and the Yellowstone River Valley to the north. Interestingly, however, that is not what the Park Service said in 1973 when the agency formulated its "natural regulation" program. Instead, after reviewing the historical evidence, the Park Service concluded that bison had not historically left Yellowstone Park to the west or north—I refer the Subcommittee to Figure 11 in the Park Service's Scientific Monograph on "The Bison of Yellowstone National Park"—see Attachment A. No new, first-person historical journals have been discovered since the Park Service conducted its original analysis. In early documents, the Park Service also stated that Yellowstone's bison population would "naturally regulate" at 1,000 to 2,000 animals. And as we all know, that has not proven to be the case.

The Park Service has since suggested that the reason the bison population has grown beyond the numbers the agency originally predicted was because park roads have been groomed to facilitate use by over-the-snow vehicles during winter. It has been hypothesized that use of snow-packed roads reduced the energetic cost of moving through deep snow and opened new areas to bison foraging during winter, which in turn, allowed bison numbers to increase. Recent research, however, has shown that hypothesis to be false and the National Academy of Sciences has concluded that grooming park roads has had nothing to do with the increase of bison above earlier predictions.

As bison numbers have grown, the animals have steadily overgrazed the range. It should come as no surprise then that bison are simply leaving Yellowstone because the animals are looking for something to eat. The Park Service has admitted that bison are at what is termed "ecological carrying capacity." By definition this means the animals are short of food and that grazing has altered the park's vegetation. As explained in a recent book, "Yellowstone's Destabilized Ecosystem" published by Oxford University Press, Yellowstone is seriously overgrazed and "natural regulation" is a failed management philosophy.

My own research has shown that Yellowstone contains some of the worst overgrazed riparian areas in the West. Early photographs show that historically Yellowstone's aspen and willow communities were ungrazed. Based on 120 repeat photosets that I have made, dating to as early as 1871, tall willows and aspen have declined by more than 95%, since Yellowstone National Park was established, due to excessive ungulate browsing by unnatural concentrations of elk and bison. Not only has Yellowstone's bison population not self-regulated, as originally predicted by the Park Service, but no ungulate population anywhere in the world has been shown to self-regulate without first causing extensive resource damage.

Instead, the natural state of the Yellowstone ecosystem included native hunters, who kept bison and other ungulate populations at very low levels, and thus maintained biodiversity. Native people, not wolves, were the system's keystone predator. It was not until native populations were decimated by European-introduced diseases and the survivors banished from Yellowstone that bison and elk populations irrupted to unnatural levels. It is important to remember that after the Nez Perce incident in 1877, Yellowstone's second superintendent had the park's original inhabitants forcefully removed and then created the myth that native people never lived in the park—all in the name of promoting tourism. Unfortunately, the Park Service has done nothing in the last 90 years to correct that situation.

So what then is the solution to the bison over-population problem? I suggest that Congress and the Park Service revisit the Treaties of 1851 and 1868, which predate the establishment of Yellowstone National Park, and under which various tribes already claim hunting rights in Yellowstone. Thus, one way to reduce overgrazing and to keep bison from leaving the park would be to honor the United States' previous commitment to Yellowstone's original owners and allow them to hunt in the park. After all, aboriginal hunting has been a natural ecosystem process for more than 12,000 years and as such is in keeping with the Park Organic Art and subsequent regulations to maintain natural conditions. For how this might be accomplished, I suggest we look to our northern neighbors.

Parks Canada has the most stringent environmental protection statutes of any Park Service in the world for they added an amendment to their Organic Act which says that ecological integrity shall be given first priority in all management decisions—shall, unlike will or may, mandates compliance. So based on extensive archival and ecological research, including my Parks Canada publication on "Long-term Ecosystem States and Processes in the Central Canadian Rockies," Parks Canada has developed ecological integrity standards that include both native hunting and native burning. First Nations already are allowed to hunt in various Canadian National Parks and under the bison restoration program that is being planned for

Banff National Park, First Nations will be allowed to hunt bison in the park to maintain ecological integrity. Native hunting will be used to prevent bison from leaving the park, as well as to prevent overgrazing. Parks Canada is also working on a directive to allow First Nations to hunt elk and other animals in national parks to prevent resource damage from unnaturally high ungulate populations. Again, we must remember that parks with native hunting are natural, while parks without native hunting, like Yellowstone, are entirely unnatural and totally outside the range of historical variability.

Wouldn't giving bison additional land outside Yellowstone solve the problem?

Unfortunately, inadequate land has never been the problem. Instead, the present situation is a direct result of "natural regulation" management under which the Park Service assumes that bison will self-regulate, and that predation, including that by native people, is unimportant in limiting ungulate numbers. No matter where the line is drawn, under "natural regulation" bison will continue to increase until they are forced by overgrazing and starvation to again cross that line. In fact, giving the bison more land will only make the situation worse.

For the sake of argument say that bison are given all the land west of Yellowstone Park in the Madison drainage from the Continental Divide down to Quake Lake. While to the north, bison are given all the land along the Yellowstone River down to Yankee Jim Canyon. Would that not solve the bison problem? It might for a few years but during some future winter, instead of 5,000 bison coming out of the park, we would have 10,000 or 15,000 bison heading for Ennis, Livingston, and Helena—bison that would still be infected with brucellosis. This would mean killing even larger numbers of bison or never ending calls for additional land.

Moreover, this option has already been tried and has been a dismal failure. In 1932, land was added to Yellowstone Park in an attempt to solve the elk over-population problem. This is called the Boundary Line Addition, or BLA, and is now one of the most overgrazed areas in the park. It did not work then, and it will not work now. It is also likely that bison will start summering on any new range, as has happened in other bison population build-ups. After all, bison once summered on the northern Great Plains, so there is no biological reason for them to move back into Yellowstone. Ecologically, it would be much better and more natural to simply let Native Americans hunt bison in Yellowstone National Park.

Is there a solution to the brucellosis issue?

First, it is important to note that bison in Yellowstone Park are heavily infected, while the elk in the northern part of the park are not. That is to say, the disease can be maintained in free-ranging bison but apparently not in free-ranging elk. This is why elk migrating north of the park are not a problem. Second, there is a separate bison herd south of the park in Jackson Hole, which also is heavily infected with brucellosis. In addition, elk on the one federal and 22 state feedgrounds in northwest Wyoming are infected with brucellosis. So we have two infected bison herds and one larger infected elk population, but only where elk are artificially fed during winter south of the park—some of those elk, though, do summer in Yellowstone.

Based on the available scientific literature, the only proven way to eliminate brucellosis from an ungulate population is test and slaughter. It must be remembered that the elimination of brucellosis from the United States is national policy. Thus, the only known way to comply with this national directive is test and slaughter. In fact, the State of Wyoming is now running an experimental test and slaughter program on one of its elk feedgrounds because previous attempts at vaccinating elk have not eliminated the disease. In the coming years, Wyoming plans to extend its test and slaughter program to two additional elk feedgrounds. Test and slaughter have also been successfully used to eliminate brucellosis from bison in various other national and state parks, including Elk Island in Alberta and Custer in South Dakota. Test and slaughter were also used to eliminate brucellosis from the National Bison Range in Montana.

If test and slaughter had been instituted in Yellowstone 20 years ago, we now most likely would have disease-free bison and elk herds—and the problem would be solved. Instead, the problem has gotten worse, while millions of tax dollars have been wasted. I suggest it is time to stop squandering the public's money and solve the problem. The solution has been known for many years, only the will has been lacking.

In closing, I thank the Chairman and Subcommittee for your time and consideration.

Attachment A—Figure 11 from Meagher, M.M. 1973. The bison of Yellowstone National Park. National Park Service Scientific Monograph Series Number One. 161 pp.

Attachment B—Kay, C. E. 1998. Ar ecosystems structured from the top-down or the bottom-up: A new look at an old debate. Wildlife Society Bulletin 26:484-498.

NOTE: Attachments to Dr. Kay's statement have been retained in the Committee's official files.

Mr. GRIJALVA. Thank you, sir. Let me just ask some quick questions, and I think they are going to call us for a vote, and we would like to get some information. Let me ask Mr. Osher, does the Buffalo Field Campaign support—because that has been part of the discussion—to support the continuation of the management plan that exists now? Let us say if there was to be some progress—I know we are still caught or trapped in phase one—but some progress toward phase two, phase three, or do you feel that that plan just needs to be abandoned and deal with something else?

Mr. OSHER. No. We do not support the continuation of the current interagency plan. We believe that the plan is not the product of sound science. That it was created as an adaptive management plan but the agencies have not been able to adapt the plan based on the new knowledge and information, including specifically genetic information that suggests that there are the three distinct subpopulations of bison in the Park. It is not in the management scenario to manage to make sure those populations remain viable. We need a new plan.

Mr. GRIJALVA. Thank you. Mr. Pacelle, I grew up until I was about five, six, seven, I grew upon a cattle ranch in southern Arizona, and although my memory is limited but I remember my father's discussions about the three most important things. First for the cattle was control of the disease, and the other was of equal—if not more important value—is the grazing space that cattle need and then control of predators was the other one. It brings back the point you made that maybe the concern over the disease is secondary to the space required for grazing for cattle. Could you expand on that if you would?

Mr. PACELLE. Well let me just say on the matter of disease I mean we do not like to see any animal contract a disease. I mean this one the main impact is on the pregnancy for the animal but you know the test is basically measuring antibodies. It is measuring exposure, and if you or I had a measles you know at some point in our life, we would have some of the antibodies.

I think the point that I was making about the spacing and that others have made is that we are talking about an ecosystem with relatively few cattle. It is very cold you know. Yellowstone is at a high elevation. They do not over-winter cattle there for the most part. So we really have an ideal set of circumstances to allow bison to range freely, at least to some limit. Most of the cattle herds are not even within 45 miles of the Yellowstone border when the bison leave the Park, and they just go you know to small areas outside of the Park.

So I think that the space management issue is crucial. I understand the Governor's concern about brucellosis-free status. I think we really need to ask USDA some hard questions about why it is

so rigid in its definitions and why there cannot be you know a subregion there that they select.

Mr. GRIJALVA. I appreciate that. Mr. Hagenbarth, let me pose a what if. In your opinion, could the Royal Teton Ranch move to a steer only operation? Would such a transition be difficult, expensive? That is part of the question. But the other part of the question, would not moving cows off the ranch solve the problem?

Mr. HAGENBARTH. To solve the problem you have to solve the disease. You could use steers because they are not susceptible to brucellosis. Whether or not you could run them there economically is another question because on running steers are different than running cows because you need a lot more infrastructure to keep them there, and if you run steers in an open country—like we did in our Forest Service allotment although we had spayed heifers—it cost us six-tenths of a pound a day. Over a 100-day grazing period, it is 60 bucks a head.

But the real issue is disease. Disease is what is causing the bison, which causes us to manage the bison the way we are. But it is the elk that are causing the problems. The elk are all over the greater Yellowstone area.

There is 20 million acres there, 20 million acres, and those acres are open, and if we destroy the infrastructure of the ranching community and they sell out—and I will guarantee you those folks are just waiting with the money. You will destroy that 20 million acres. We cannot make that sacrifice. We have to lift up our eyes, open our ears, get a sharper vision to see what the real issue is.

Mr. GRIJALVA. Thank you.

Mr. PACELLE. Can I just say something with the elk very briefly, Mr. Chairman? You know I agree with Mr. Hagenbarth to a degree. I mean we are not talking about bison as the only theoretical transmitters of this disease. There are more than 15,000 elk. Even if they have a lower incidence rate the absolute numbers of infected animals may be comparable, and why are we allowing this no movement policy for bison yet elk range throughout the ecosystem?

And I think the reason is that there is a stronger constituency for the elk. There are hunting guides and outfitters and lots of Montana hunters who want to have the elk there.

Mr. GRIJALVA. My time is up. Mr. Bishop.

Mr. BISHOP. Yes, I will try and be quick and let you have another shot at these guys again. I appreciate you all being here, and I appreciate your testimony.

Mr. Hagenbarth, you established a unique picture. That is something that we do not all visualize sometimes, and I assume you are very serious when you say that if indeed the ranching industry fails in this particular area it will sell out not to other kinds of open space but it will sell out to housing developments, it will sell out to cabins and those types of situations. So when you talk about how you actually are the last link of an open space in this particular area, I think it is a compelling argument that we do not hear that often.

Dr. Kay, can I ask you a couple of simple questions that I tried to get from the Forest Service? Is there in your studies a historic high or historic size of the buffalo herd that traditionally was in the Park and Park area? Like pre 1900s.

Mr. KAY. Well there are early estimates of two to 300 bison when the Park was first established on it but I mean there is more bison in there now than there has ever been, and this is all after the natural regulation thing because up until 1968 the Park Service was concerned about overgrazing. They controlled the numbers of bison in the Park.

Mr. BISHOP. Let me quit being cute with these questions.

Mr. KAY. OK.

Mr. BISHOP. I think I read in some other stuff you had done in other places that in the 1920s there were about 400, 500 head of bison there. In the 1800s there was as many as 600 head. But certainly you know when the Director said there should be 7,500—and I saw the Governor start to gag over there——

Mr. KAY. Yes.

Mr. BISHOP.—that is 10 times higher than I think we have ever talked about the number of bison that this particular piece of property can adequately maintain.

Mr. KAY. That is certainly true. I have not actually ever seen that number. In this book here, when you calculate out when the reproductive rate falls to zero, it is about 6,000 bison. OK. But what happens and there is some physiological data on the condition of bison, they can take this by testing the urine for protein catabolism where they start using their muscle mass and everything, when it gets about 3,000 bison the bison are in bad shape, and they start leaving the Park. OK.

Mr. BISHOP. In the Canadian Parks when they developed a bison reintroduction plan——

Mr. KAY. Yes. They are still working on that. They have not——

Mr. BISHOP. If there were like two or three things we could take from their experience that we could probably transpose and use in Yellowstone that would be effective, what would you say those would be?

Mr. KAY. Well the main thing is their different views on what structured the ecosystem. What were the important players in the ecosystem, and it turns out to be it was native hunting and native burning. It turns out lightning fires are basically unnatural. All the burning in this country for the last 12,000 years has been native burning. Depending upon which ecosystems you were, it was anywhere from 270 times to 35,000 times more frequent than known lightning fire ignition rates.

So Parks Canada has looked at these various data sets. They have talked to anthropologists and archaeologists, and because they have a stronger native presence up there in that country, I mean they call them First Nations that is the politically correct thing to do when you talk about native people in Canada. You know they are a lot more open to the ideas of you know letting native people hunt in the park to control the animal numbers.

Mr. BISHOP. They have more active management style of management plan up there in Canada?

Mr. KAY. That is right. What they have done is develop ecological integrity standards. Unfortunately like natural regulation, I mean how do you ever hold the government bureaucrats accountable? There is no standards you know it goes to this many bison or that many bison or this many elk, and they just say it is all natural.

So what they have done is based on the archeological record, the first person historical journals, and all the other data sets they can find, pollen records and everything else, come up with we in this country would call a range of historical variability, and you also have to understand what are the main processes that drive the ecosystem.

Mr. BISHOP. I am sorry.

Mr. KAY. That is fine.

Mr. BISHOP. No. I appreciate——

Mr. KAY. It is an entirely different approach than down here in the United States, and unlike our Park Service that has never asked me to take them on a field trip in Yellowstone, the chief scientist from Parks Canada has come down and gone with two Yellowstone field trips with me, and of course he also goes out and looks at the Yellowstone people. But they are not doing natural regulation in their parks. OK.

Mr. BISHOP. I appreciate that. I appreciate also your comments on the boundary line addition of 1932 and the impact that that actually had. I think that historical input is significant. Did you do any study with the brucellosis eradication program starting in 1934?

Mr. KAY. Well I have not done any studies. I mean there was some part of my written testimony which I did not have time to get to had to do with the only known way of eradicating brucellosis, and that is test and slaughter, and that as been accomplished in various state and national parks.

Mr. BISHOP. Right.

Mr. KAY. To remove brucellosis from bison. And previous witnesses have already alluded to that fact. Everybody is sort of looking for a silver bullet which is this vaccine that has not been developed.

Mr. BISHOP. That was probably the wrong term to use when you are talking about this issue. I have about 10 seconds left, and I knew we have a few that is coming up. Let me yield back but I appreciate the panel, and I appreciate your responses, and I am sorry we did not have more time to ask more questions.

Mr. GRIJALVA. Thank you very much, Mr. Bishop. With that, I would just like to inform the panelists there were some follow-up questions, and we will be submitting those in writing to you, and appreciate your responses so they can be part of the record, and be distributed to the other members of the Committee as well.

Last closing comment. There is no doubt that there are more bison in the Park now because it is a protected area, and as a consequence of that there are more bison, and if you put it in the historical context the bison used to roam from Canada to Mexico, I think that is not a good comparison. Anyway, thank you very much. The meeting is adjourned.

[Whereupon, at 12:23 p.m., the Subcommittee was adjourned.]

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