Alaska Board of Game
Agenda Change Request Policy

Because of the volume of proposed regulatory changes, time constraints, and budget considerations, the boards must limit their agendas. The boards attempt to give as much advance notice as possible on what schedule subjects will be open for proposals. Following are the regulations under which the Board of Game considers agenda change requests (5 AAC 92.005):

BOARD OF GAME

5 AAC 92.005. The Board of Game may change its agenda for consideration of proposed regulatory changes in accordance with the following guidelines:

(1) A request for a change must state in writing the change proposed and the reason it should be considered out of sequence;

(2) a request must be sent to the executive director of the Boards Support Section at least 45 days before a scheduled meeting unless the board allows an exception to the deadline because of an emergency;

(3) the executive director shall attempt to obtain comments on the request from as many board members as can reasonably be contacted; and

(4) if a majority of the board members contacted approve the request, the executive director shall notify the public and the department of the agenda change.

5 AAC 96.625. JOINT BOARD PETITION POLICY

(a) Under AS 44.62.220, an interested person may petition an agency, including the Boards of Fisheries and Game, for the adoption, amendment, or repeal of a regulation. The petition must clearly and concisely state the substance or nature of the regulation, amendment, or repeal requested, the reason for the request, and must reference the agency's authority to take the requested action. Within 30 days after receiving a petition, a board will deny the petition in writing, or schedule the matter for public hearing under AS 44.62.190--44.62.210, which require that any agency publish legal notice describing the proposed change and solicit comment for 30 days before taking action. AS 44.62.230 also provides that if the petition is for an emergency regulation, and the agency finds that an emergency exists, the agency may submit the regulation to the lieutenant governor immediately after making the finding of emergency and putting the regulation into proper form.

(b) Fish and game regulations are adopted by the Alaska Board of Fisheries and the Alaska Board of Game. At least twice annually, the boards solicit regulation changes. Several hundred proposed changes are usually submitted to each board annually. The Department of Fish and Game compiles the proposals and mails them to all fish and game advisory committees, regional fish and game councils, and to over 500 other interested individuals.

(c) Copies of all proposals are available at local Department of Fish and Game offices. When the proposal books are available, the advisory committees and regional councils then hold public meetings in the communities and regions they represent, to gather local comment on the proposed changes. Finally, the boards convene public meetings, which have lasted as long as six weeks, taking department staff reports, public comment, and advisory committee and regional councils reports before voting in public session on the proposed changes.

(d) The public has come to rely on this regularly scheduled participatory process as the basis for changing fish and game regulations. Commercial fishermen, processors, guides, trappers, hunters, sport fishermen, subsistence fishermen, and others plan business and recreational ventures around the outcome of these public meetings.

(e) The Boards of Fisheries and Game recognize the importance of public participation in developing management regulations, and recognize that public reliance on the predictability of the normal board process is a critical element in regulatory changes. The boards find that petitions can detrimentally circumvent this process and that an adequate and more reasonable opportunity for public participation is provided by regularly scheduled meetings.

(f) The Boards of Fisheries and Game recognize that in rare instances circumstances may require regulatory changes outside the process described in (b) - (d) of this section. Except for petitions dealing with subsistence hunting or fishing, which will be evaluated on a case-by-case basis under the criteria in 5 AAC 96.615(a), it is the policy of the boards that a petition will be denied and not schedule for hearing unless the problem outlined in the petition justifies a finding of emergency. In accordance with state policy expressed in AS 44.62.270, emergencies will be held to a minimum and are rarely found to exist. In this section, an emergency is an unforeseen, unexpected event that either threatens a fish or game resource, or an unforeseen, unexpected resource situation where a biologically allowable resource harvest would be precluded by delayed regulatory action and such delay would be significantly burdensome to the petitioners because the resource would be unavailable in the future. (Eff. 9/22/85, Register 95; am 8/17/91, Register 119; readopt 5/15/93, Register 126)

Authority: AS 16.05.251, AS 16.05.255, AS 16.05.258

Kristy Tibbles
Executive Director
Board of Game
Juneau

February 3, 2012

EMERGENCY PETITION FOR AGENDA CHANGE REQUEST

Issue:

5AAC 98.005 Areas of Jurisdiction for Antlerless Moose Seasons
For the purpose of implementing AS 16.05.780, antlerless moose seasons require approval by a majority of the active advisory committee's located in. or the majority of whose members reside in, the affected unit or subunit. For the purpose of this section, an "active advisory committee" is a committee that holds a meeting and acts on the proposal.

Reason for Request:

Recently 5AAC 98.005 has been interpreted by the Department of Law to mean that only Advisory Committees with a majority of whose members reside in the unit or subunit have authority to reauthorize antlerless moose hunts. Meaning since the management of these antlerless moose hunts are at the subunit level only those committees with a majority of their members residing in that subunit have authority. In the case of 20A this would be the committee's of Middle-Nenana and Minto-Nenana. This is contrary to historical action where the Fairbanks, Delta, Minto/Nenana, and Middle-Nenana AC's have assumed authority to reauthorize this hunt in the spirit of joint stewardship. I request that the Board of Game take up this issue at the Interior Board of Game Meeting in March 2012. This is an issue which is of an emergency nature to the constituency of the Fairbanks and Delta Junction communities and it cannot wait until the next State Wide Board of Game meeting when it will be in cycle again.

Other:

Due to this unforeseen and unexpected event it is critical to establish which AC's have authority for reauthorization. The antlerless moose hunts in GMU 20A have been extremely critical in regulating growth of this moose population. The habitat in 20A cannot sustain growth, and is at or above carrying capacity now. Biological information indicates lower twinning rates, high browsing of biomass, reproductive pauses, delayed first year of reproduction, and low calf weights. The confusion surrounding this issue could result in no reauthorizations for antlerless moose in this GMU until this issue is resolved. Failure to resolve this issue immediately could result in loss of a biologically allowable resources harvested. A delay in correcting this regulatory action could prove to be a significant burden to the communities of Fairbanks, Delta Junction, and potentially Minto and Nenana as it has not been verified that either of these communities have a majority of their members residing in the subunit. These resources are too critical to these communities to not allow for their participation in the reauthorization process, and in fact without their participation it is expected that this harvest opportunity will be lost, as the only AC left in the reauthorization has not proven to be supportive of these hunts. To put it into perspective this lost opportunity represents the loss of 75,000 lbs of lean moose meat to our communities.

Submitted by Raymond H. Heuer

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES GARRISON, FT GREELY
P. O. BOX 31269
FORT GREELY ALASKA 99731-1269

REPLY TO
ATTENTION OF

February 13, 2012

Fort Greely, Environmental Office

Executive Director, Kristy Tibbles
Board of Game
Alaska Department of Fish & Game
P.O. Box 115526, Juneau, Alaska 99811

Dear Ms.Tibbles:

I am writing to you to request a delay from the March BOG (Board of Game) for the Fort Greely Moose hunt proposal. I would like to request the next available and sensible date for all parties concerned, possibly the Central/Southwest BOG meeting scheduled for February, 2013.

I would like to request this delay for the following reasons:

1. To provide ample notification time to the public and provide ample time for them to comment.

2. To prepare a solid product to present to the BOG and the public so that it is supported.

3. For fitting an official proposal in the timeline of BOG cycles to achieve a realized hunt in 2013.

The point of contact for this action is the undersigned at: (907) 873-4202 or e-mail richard.d.barth4.civ@mail.mil

Sincerely,

RICHARD D. BARTH
CIV, GS
Natural Resources Manager

Dan and Jackie Marshall
PO Box 976
Seward, AK 99664
907-224-8445

Alaska Board of Game, 2/9/12

I am requesting a reevaluation of proposition 102, and the inclusion of llamas in the ban that will become law on July 1, 2012. I want the board to know first and foremost that I am appreciative of the amendment allowing me the opportunity to certify my animals in the anticipation that I may secure a permit from the *Alaska Fish and Game* to use them while hunting. You gave the information you had, deliberate, meaningful dialogue which allows us an opportunity to still possibly hunt with our animals. I just wanted to take this opportunity to draw your attention to the current research and the science that has been done, and accepted on the llama / wild sheep controversy.

I have sent along with this letter, the *KOFA Proposed Llama Ban*, which is considered the definitive study on this issue, and although it is an extensive read, it outlines the 16-year history of this issue as well as the results of previous efforts by land managers to ban llamas based on the disease transference *perception*.

Biologists and veterinarians over the years have tried to find llamas with these diseases and make the connection that they could potentially threaten wild bighorn herds in the lower 48 as well Dall sheep herds in Canada. They have been unable to find any, and therefore, have only been able to *speculate* on the risk of llamas used as pack animals.

Glacier National Park has llama trekking. Yellowstone Park has llama trekking. The BLM permits llamas as pack animals. The USFS not only allows pack llamas, but in many places, encourages it and has its own. All of these agencies are well aware of the issue, and have been through the very same process the *Board of Game* in Alaska is going through right now. All of them have examined the science and the evidence and have concluded that pack llamas with their owners pose little if any risk to the land or the wildlife. In all of these examples, land and wildlife managers have decided that science cannot support a ban on llamas used as pack stock.

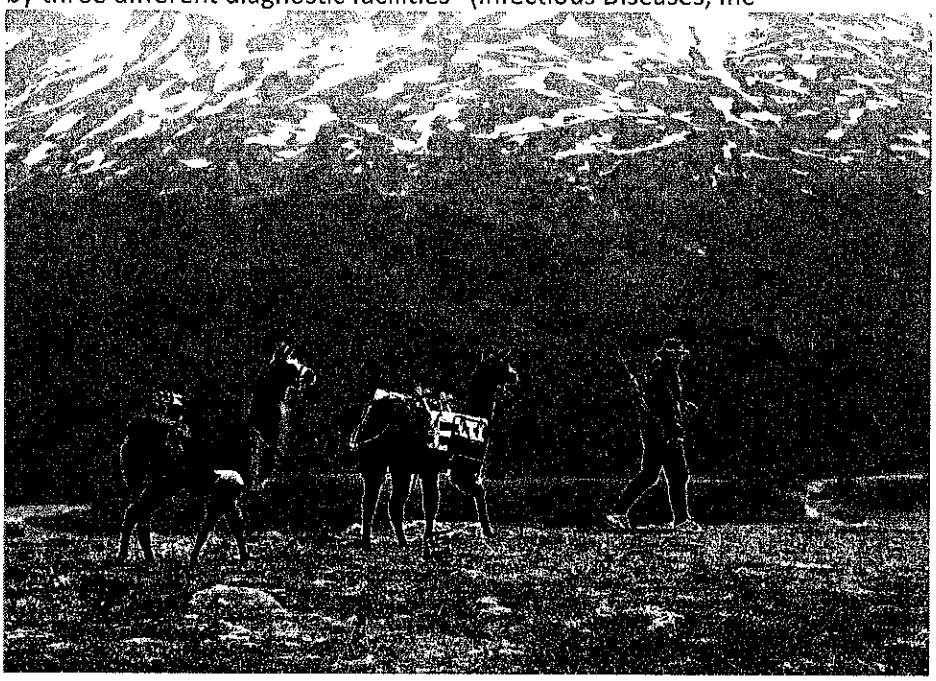
I have also included a series of what I call "sound bites" that give a universal overview of where this issue has been and where it is now. Llamas have been in the United States for about 100 years. We have had them in Alaska since the early 70's. I have been packing and hunting with them since the mid 90's. The documentation speaks for itself so I'll try not to belabor the point in this letter. My hope is that you will take a moment and give this documentation a concentrated overview.

During the last 15 years, I have used llamas as a business venture, although I stopped because I became just too busy with so many people that wanted to access the Kenai Mountains. I have and continue to contract llama work with the Chugach National Forest. I have contracted and done volunteer work with

Johne's disease camelids

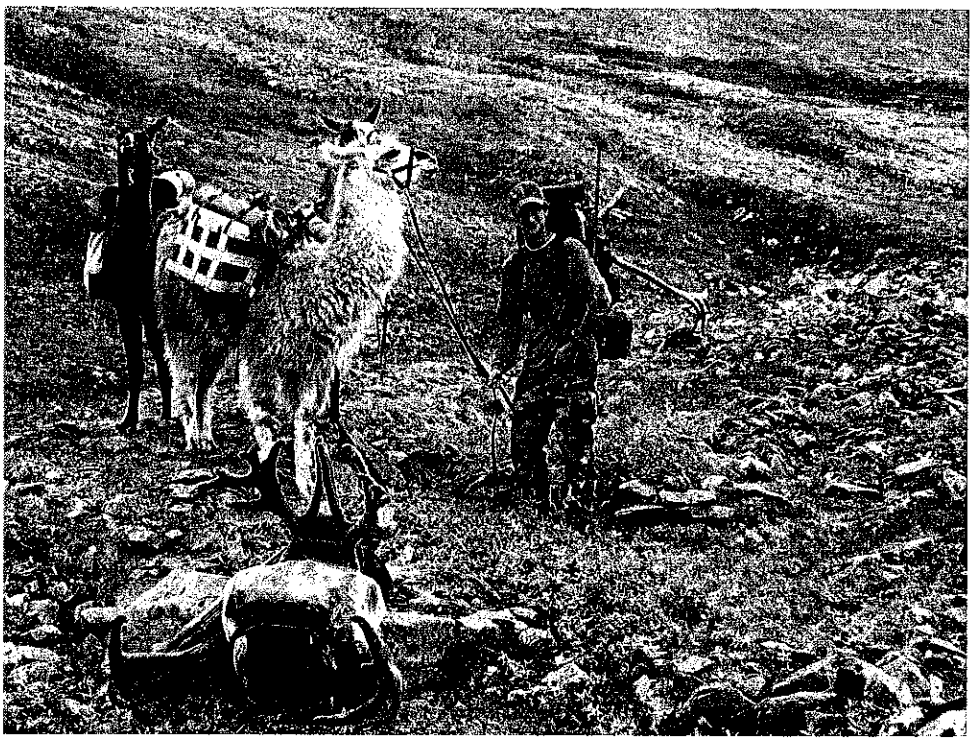
"More than 700 alpacas and llamas were tested for the presence of Johne's disease over the past 12 months, with negative results. Because of the relatively small camelid population in Western Australia, it was possible to undertake a full census of stock over 12 months of age. Testing was based mainly on faecal culture (BACTEC) although serology (CFT) was used on animals imported during the study. The results provide further evidence that Western Australia is free of Johne's..."

"A growing body of evidence is emerging that M. avium is the primary cause of Johne's disease in horses. Since our initial reports of **equine Johne's disease in horses**, we have identified three additional cases (10, 11). In addition, Dr. **C. C. Wu (Purdue University) has identified a sixth horse with Johne's disease** due to M. avium. The identity of the pathogenic mycobacterium in horses has been confirmed by three different diagnostic facilities" (Infectious Diseases, Inc



our llamas for the State of Alaska. ON one occasion, I retrieved a dead sheep hunter on request from the *Alaska State Troopers*. They could not get ATV's, horses or a helicopter to the body. Members of *Alaska Mountain Rescue*, the Troopers and I strapped the body onto a litter and one big llama dragged him out of the mountains and all the way to highway.

I am asking the Board to consider removing llamas from proposition 102, based on the science that has been conducted over the last 16 years. Although the language states that the Alaska Fish and Game may issue a permit based on a clean health certificate, I am left feeling uneasy about it for these reasons: First, the perception both within the department and out in the public is damaging , and once established, is difficult to counter. Second, this listing acts as a slippery slope toward a more involved process and the next rational act by any organization toward a complete ban. Third, I have not been able to nail anyone down on the actual cost of annually certifying my five llamas, but I am told it is expensive.



We are a family of walking hunters. We don't own ATV's. We don't own snowmachines. We don't own boats or planes. We don't have the financial resources to hire pilots. We walk into the mountains on the eastern side of the Kenai Range, and llamas allow us to expand our hunt beyond the accessible thoroughfares. My sons became hunters at an early age because llamas allowed us a vehicle for transporting gear in and meat out. Little boys have a difficult time at best climbing in to the Kenai Mountains with all the right gear needed to survive. This is why less than one percent of the students in the Seward Schools hunt. Less than one percent. These are Alaska kids, and they don't hunt. But they like to play video games. My boys have always told their peers that they prefer realty to virtual reality. We lay my son's trapline in with llamas. We load float tubes, fly rods and gear on our llamas and fish the high mountain lakes of the Resurrection drainage. Llamas have taken much of the risk out of taking my family into the mountains for extended periods of time. As I stated in my earlier letter to the board, my wife is a breast cancer survivor and due to her numerous and extensive surgeries, she can no longer shoulder a pack. Llamas have been the only reason that she has been able to continue with the boys and I on our ventures.

If you study the results of the research and the science and choose to decline my request to revisit this very important issue, I will abide by the law and go through the certification process. I would welcome

any questions you may have, and if I can't answer them, I'll contact the pertinent researchers and scientists, and I'll get the answers for you. Please give this another look. There are only a handful of us in Alaska anymore that have llamas and even fewer of us really use them. We are an incredibly small user group and don't have the resources that llama packers do in the lower 48. Oh, I was just thinking that since camels originated here, what would you think of a reintroduction program. Big, bushy Bactrain camels roaming Alaska again!

Thank you for the time you give, the work you do, and your attention to this appeal.

Respectfully,

Dan L. Marshall
Seward, Alaska

http://www.llama.org/johnes/kofa0.htm Definitive findings on the llama / sheep controversy

Science and Research Sound Bites:

17) **Recreational livestock permitted on the refuge include horses, mules, burros, and llamas.** (KOFA National Wildlife Refuge - 2011 hunting regulations) *KOFA (home of the desert bighorn) and Canyonlands were the hotbed of the llama / Sheep controversy in the mid nineties. KOFA rescinded their ban on llamas after reviewing the science.*

Glacier National Park explained, "after several months of information gathering, consultation and evaluation, Park officials have decided **not to prohibit the use of llamas as pack animals in the park's backcountry**. This measure was being considered due to the possibility that llamas could transmit Johne's disease to native mountain goats and bighorn sheep."

"**To date, there are no identified pathogens that are specifically adapted to llamas as a host species.** That is to say, that if you scour the veterinary literature, you will find reports of llamas that have contracted viral and bacterial problems from horses, cattle, sheep and goats. But there are no reported incidences of diseases contracted by these other species specifically from contact with llamas." (KOFA)

"In light of the uncertainty and expense of litigation, the *Canyonlands Task Force* agreed to this settlement in order to lay the disease issue to rest. In doing so, Superintendent Dabney had to publicly admit what veterinarians have been saying all along: **llamas do not pose a Johne's disease threat."**

- The American Association for Small Ruminant Practitioners issued the following statement " . . . **Scientific evidence does not justify a ban of llamas on public lands** . . ."
- The Executive Committee of the United States Animal Health Association, which includes all 50 state veterinarians, adopted the following resolution, ". . . **USAHA recommends that no public lands be closed to llamas accompanied by people for the reason of Johne's disease** . . ."
- The BLM stated ". . . **the BLM will not consider banning llamas or other domestic species from the public lands based on its current understanding of Johne's disease** . . ." Since the risk of llama

paratuberculosis transmission is near zero, in order to sustain a pack llama ban based on a perceived threat of such transmission, the Agencies would effectively have to adopt a zero-risk tolerance policy with respect to the Planning Area.

Oregon State University Veterinarian Dr. Stanley Snyder stated ". . . As a reason for keeping llamas out of areas of our national forests, etc., the threat of llamas disseminating Johne's disease to wild ruminants is quite remote. **In Oregon, where Johne's disease in cattle, sheep and goats is quite common and where llama raising is extremely popular, we have not had even a single confirmed case of Johne's disease in llamas . . ."**

"The incidence of Johne's disease in llamas appears to be virtually non-existent. **At most, there have been only two (2) confirmed and two (2) more suspected cases of Johne's disease diagnosed llamas in North America during this century.** Ex. 20 - Belknap at 21; Stehman at 101. Two of those four cases came from a herd of approximately 200 llamas in Colorado. After the discovery of Johne's disease in the two llamas in the herd, the entire herd was systematically tested with no new cases in the several succeeding years. There was no evidence that paratuberculosis had been transmitted to any other llama in the herd. Ex. 20 - Belknap at 23-24. The only epidemiology or pathogenesis study on llamas with Johne's disease could not find any infected adult llamas to include in the study. Dr. Tim Deveau, who works with the U.S. Department of Agriculture's APHIS unit in Wisconsin, tried to determine the incidence of diarrhea in adult llamas with Johne's disease. He interviewed over 75 llama owners and breeders and could find no diseased animals to incorporate into his investigation." Ex. 23, Ex. 20 - Belknap at 30.

"While the National Park Service may have legitimate reasons for restricting the use of non-native species within its boundaries to preserve the integrity of its contained ecosystems, **the Park Service should not be using Johne's disease as the vector for it ban ... it's just not scientifically sound land management (see attached letters from the Colorado State University Veterinary Teaching Hospital and Oregon State University College of Veterinary Medicine.) Similar statements/positions have been offered by the Wyoming State Veterinarian, Dr. Beth Williams, the Idaho Fish and Game State Veterinarian, Dr. Dave Hunter, and Dr. LaRue Johnson of Colorado State University who is the leading Veterinary researcher on llamas in North America."(KFOA)**

United States Representative Wayne Allard, himself a veterinarian, wrote:"I have been informed by Llama organizations in my district of the action taken by yourself to ban llamas from the Canyonlands National Park. I have studied the history of this particular situation stemming from the original commentary by Dr. Terry Spraker of Colorado State University that seemingly was misquoted by a news reporter._I am a veterinarian and have recently finished some continuing education courses at Colorado State University. I spent some time discussing with my colleagues paratuberculosis in domestic animals. **In this case it seems as there is no scientific basis for banning llamas in National Parks or BLM land based solely on the remote possibility of Johne's disease."**

Kofa Proposed Llama Ban

Kofa National Wildlife Refuge & Wilderness had included a ban on llamas as a part of a proposed Wilderness Plan. This proposed ban was a direct result of the Canyonlands National Park ban. The following letter is by the attorneys representing the Canyonlands Task Force and states the facts surrounding the current situation at the Canyonlands.

Due to information provided to Kofa in this letter, Kofa is now recommending that the proposed ban be removed from their overall wilderness plan.

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----------the letter is as follows----------

GIBSON, DUNN & CRUTCHER

LAWYERS
DENVER, COLORADO

April 24, 1996

Mr. Tom Baca
National Resource Planner
Fish and Wildlife Service
P.O. Box 1306
Albuquerque, New Mexico 87103

Re: Department of the Interior Letter 8560 (050) AZA 25502, dated January 24, 1996

Dear Mr. Baca:

Gibson, Dunn & Crutcher -- on behalf of the International Llama Association ("ILA"), the Rocky Mountain Llama and Alpaca Association ("RMLA") and the Canyonlands Task Force ("CTF") (collectively, the "Associations") -- greatly appreciates the opportunity to comment on the Draft "Kofa National Wildlife Refuge & Wilderness and New Water Mountains Wilderness - Interagency Management Plan and Environmental Assessment" (the "Draft Plan"), dated December 1995, which was developed by the Bureau of Land Management ("BLM") and the U.S. Fish and Wildlife Service ("FWS"), in cooperation with the Arizona Game and Fish Department, (collectively, the "Agencies") and would apply to the entire territory of the Kofa

National Wildlife Refuge & Wilderness and New Water Mountains Wilderness (the "Planning Area"). These comments are particularly directed, although without limitation, to that portion of the Draft Plan entitled "Management Actions," section 2 of which provides, in pertinent part:

2. Prohibit the use of llamas and goats as pack animals throughout the planning area. Provide public information about these restrictions at access point information displays, in the planning area brochure and AGFD hunting regulations by 1996.

Draft Plan, Ex. I at 35.

The ILA is a global association of individuals and twenty-six affiliated organizations with a total membership of over 5,000 persons. The purpose of the ILA is "to educate members and the public as to the caring for, breeding and raising of llamas and other camelids." The International Llama Registry ("ILR"), which registers llamas and alpacas in the North American herd, has almost I 00,000 animals and I 0,000 owners in its data base. Since a number of owners choose not to register their animals with the ILR, the number of these animals in the North American herd is undoubtedly larger. The North American herd has increased from 10,000 animals and 1,000 owners to its present size in the past ten years. Today, the herd in North America is valued at several hundred million dollars and is a growing part of the livestock industry.

The RMLA is an association of residents of the western regions of the United States with an interest in llamas. The RMLA's purpose is "to educate the members and the public as to the breeding, raising, care, and use of llamas." Of all the llama organizations in North America, the RMLA undoubtedly has the highest percentage of members interested in the use of llamas as pack animals in the vast public lands that are included within the RMLA's geographic reach. In addition, RMLA members actively use their llamas for showing, spinning fiber, guarding sheep, attending parades and 4-H projects, as well as breeding their llamas for resale.

The CTF is an association of individuals that was formed in response to the September 1994 ban on pack llamas -- the first and only one in the Nation -- instituted by Mr. Walter D. Dabney, Superintendent of the National Park Service's Southeastern Utah Group, for the Canyonlands National Park (the "Dabney decision") over alleged concerns about paratuberculosis transmission by llamas.(1) The CTF has since been committed to "providing responsible leadership and a strong, unified presence to benefit the llama community by appropriate government policy and informed public opinion."

Footnote (1)...Of course, other park and public land administrators around the country prohibit the entry of various kinds of pack animals -- including horses, burros and llamas -- for reasons that have nothing to do with paratuberculosis or disease generally. It should also be noted that, simultaneously with the Dabney decision and apparently at the instigation of Mr. Dabney personally, Glen Canyon National Recreation Area ("Glen Canyon"), which is adjacent to Canyonlands and portions of which are subject to the jurisdiction of Superintendent Dabney's below referenced January 1995 "Backcountry Management Plan", imposed a ban on pack llamas identical to the Dabney decision.
Ex. 8. The Associations are informed that the Glen Canyon Superintendent imposed that ban

based, in material part, on information received from and statements made by Mr. Dabney. As demonstrated below, however, it is our understanding that the Glen Canyon Superintendent is about to issue a "Superintendent's Directive" reversing its December 1994 ban on llamas on the grounds that the ban was and is scientifically unfounded. Additionally, the Associations understand that park authorities at the Colorado National Monument implemented a llama access ban, again with the encouragement of Mr. Dabney, based on information he supplied, and roughly simultaneously with Dabney's own llama prohibition respecting Canyonlands. National Park Service representatives have assured the Associations, however, that no such ban is in effect at the Colorado National Monument park. Due to the material influence of Superintendent Dabney in the Glen Canyon llama prohibition -- and the simultaneity of that ban with the Dabney decision covering Canyonlands -- the Associations consider these two acts to be part of the same, orchestrated and coordinated effort by Mr. Dabney in the autumn of 1994. In sum, only one independent llama access prohibition has been instituted in the United States based on a perceived threat of -paratuberculosis transmission to native wildlife.

The Associations fully support reasonable governmental regulations designed to preserve, enhance and protect the Nation's wildlife and wilderness heritage. The Associations are convinced, however, that any and all regulations governing access to and use of wilderness areas must be well founded in science and fact, and implemented only following careful deliberation and consideration of the relevant Science and facts. It is the position of the Associations that no administrative decision or regulation should be based on speculation, misinformation or rumor, since to do so would undermine the legitimacy and credibility of the entire regulatory effort.

The primary purpose of these comments is to provide U.S. government decision-makers responsible for protecting the wildlife present in the Planning Area with the available scientific evidence concerning the transmission and epidemiology of Johne's disease ("paratuberculosis"). On March 12, 1996 a Workshop on Johne's Disease was held at Colorado State University and sponsored, in part, by the BLM (the "CSU Workshop"). The CSU Workshop provided a forum for scientists with an expertise in Johne's disease and policy makers entrusted with managing public lands to discuss the scientific evidence concerning the transmission and epidemiology of Johne's disease. **According to the scientific evidence presented at the CSU Workshop and documented in the scientific studies and literature, at least three conclusions emerge: (1) llamas are not, in any measurable or scientifically meaningful sense, transmitters of paratuberculosis;** (2) other domestic animals, often given extensive and frequent access to wildlife areas, are more substantially likely paratuberculosis transmitters; and (3) in all events, paratuberculosis poses a lower-grade threat to wildlife in wilderness areas in relation to far more common and equally deadly diseases, and paratuberculosis presents a far greater threat to domestic production livestock, including sheep, goats and cattle, in relation to wildlife. So powerful and persuasive was the presentation of the available scientific evidence at the CSU Workshop that the Assistant Director of Resource Use and Protection of the BLM, W. Hord Tipton, has announced the Bureau will not even consider banning llamas from public lands based on current data.

A secondary purpose of these comments is to explain precisely the origin and source of the rumors, speculations, and innuendoes concerning llamas that have apparently led to the proposed ban set forth in the Management Actions section of the Draft Plan.

BLM Policy

On April 3, 1996, Mr. Tipton, of the BLM, informed United States Representative Michael D. Crapo by letter that, based in large part on the CSU Workshop, the BLM would soon be formally announcing its policy that llamas should not be banned from public lands based on its current understanding of paratuberculosis.

The consensus of the [CSU Workshop] was that Johne's disease is a disease of filth and animals must have prolonged exposure and receive massive numbers of the bacteria to become infected. The chances are remote that infection could occur in a free-ranging animal population, such as llamas. Only cursory monitoring of freeranging wildlife is required at this time. Therefore, the BLM will not consider banning llamas or any other domestic species from the public lands based on its current understanding of this disease. The BLM will formally announce this policy soon.

Ex. 2 at 1 (emphasis added). A ban of llamas from the Planning Area, based on the threat of the spread of Johne's disease, would run directly counter to the BLM policy established after the CSU Workshop.

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The Prohibition Of Pack Llamas From Canyonlands National Park

To date, the Associations are aware of only one, independent instance of a prohibition of pack llama access to or use of public lands anywhere in the United States based on a perceived threat of paratuberculosis transmission. Interestingly, the aforementioned prohibition, first instituted over a year-and-a-half ago by a Jone National Park Service Superintendent, Walter D. Dabney, and made applicable to the Canyonlands National Park and Orange Cliffs Unit of Glen Canyon National Recreation Area ("Canyonlands"), has not been followed by Mr. Dabney's National Park Service colleagues or by other U.S. and state governmental park and wildlife administrators. Indeed, the Associations are aware of, and the record will demonstrate that, several other representatives of the National Park Service, U.S. government agencies, and various state agencies have considered -- and categorically rejected as scientifically unfounded -- the decision taken by Mr. Dabney and have publicly refused to follow his lead.

Tellingly, the stated rationale given for Mr. Dabney's action in 1994 -- namely, "the possibility of disease transmission to native animals" -- is precisely the same rationale given for the proposed prohibition on llama use set forth in the Draft Plan. From preliminary telephone discussions with representatives of the Agencies, it is the understanding of the Associations that the proposed llama prohibition contained in the Draft Plan was indeed prompted, at least in significant part, by rumor of the Dabney decision respecting Canyonlands. Consequently, the Associations believe it to be critical to the Agencies' deliberation of the Draft Plan that responsible decision-makers be informed of the chronology of events leading up to the Dabney decision and its aftermath.

The Associations first learned of the Canyonlands llama ban in September 1994, when Mr. Dabney issued a press release unilaterally announcing the ban, without the opportunity for public comment or submission of scientific data. The press release was reported by several local Utah newspapers. Ex. 3. The alleged justification for the llama ban, as reported by the media, was Mr. Dabney's belief that llamas may transmit paratuberculosis to Bighorn sheep present in the Canyonlands park. In his Briefing Statement supporting the September 1994 llama prohibition, Ex. 4, Mr. Dabney admitted that his concerns over the purported paratuberculosis threat from llamas emanated from impromptu comments by Dr. Terry Spraker, a Colorado State University ("CSU") veterinary pathologist, while Spraker was present at the 1994 Annual Desert Bighorn Sheep Council meeting. The Associations understand that Mr. Dabney did not attend that meeting, but apparently learned of Dr. Spraker's comments second-hand.

Based on a BLM-prepared transcript of the 1994 Desert Bighorn Sheep Council meeting the Associations recently received, it is true that Dr. Spraker raised the potential problem of paratuberculosis transmission to native animals in wilderness areas. Ex. 5 at 23. He also noted that paratuberculosis had been diagnosed in two co-located llamas in the over 100,000 strong.

North American llama herd of the early 1990s.2 However, Dr, Spraker's brief comments on the issue did not specifically address the risk of transmission of the disease from llamas to wildlife in wilderness areas. According to his subsequently issued, October 1994 Briefing Statement in support of the llama ban, Mr. Dabney stated that his decision to prohibit llama entry into Canyonlands was "based largely upon" discussions with and the "strong recommendation" of Dr. Terry Spraker. Ex. 4.

Footnote (2)....As noted below, the Associations have recently learned that two other llamas -- one located in Oklahoma and the other in South Dakota -- may have been diagnosed with paratuberculosis at some point in the past. The dates and validity of those diagnoses are uncertain and are currently being investigated by the scientific community. Even if confirmed, this would mean that only four animals out of the probable hundreds of thousands of llamas in the cumulative North American herd have been diagnosed with paratuberculosis, which is still a dramatically insignificant rate of incidence.

Taken out of context and without rigorous analysis of the available scientific evidence, Dr. Spraker's 1994 comments apparently caused Mr. Dabney to conclude that llamas may present a substantial danger to wildlife in wilderness areas. Undoubtedly, Mr. Dabney was alarmed by second-hand reports he received of the initial, off-the-cuff comments made by Dr. Spraker at the Desert Bighorn Sheep Council meeting. However, as discussed below, a later statement, issued by Dr. Spraker and other prominent CSU veterinary professors, which was given directly to Mr. Dabney, makes clear that the Canyonlands prohibition on llama access, predicated on the purported danger of llamas transmitting paratuberculosis to wildlife, was and is "scientifically unsound." Ex. 7 at 2.

The initial Canyonlands llama prohibition, hurriedly announced by Mr. Dabney in September of 1994, remained in effect through the late autumn and early winter of 1994. In January 1995, Mr.

Dabney incorporated (and thereby made permanent) the pack llama ban from Canyonlands into his Canyonlands National Park and Orange Cliffs Unit of Glen Canyon National Recreation Area "Backcountry Management Plan." Ex. 8.

In a critical May 4, 1995 letter sent to Mr. Dabney, Dr. Franklyn Garry, Dr. David Getzy, Dr. Terry Spraker, and Dr. LaRue Johnson addressed the issue of paratuberculosis among sheep, goats, cattle, horses, and llamas specifically **in the context of the Dabney decision to prohibit llama use in and access to Canyonlands.** Ex. 7. **The letter stated that while paratuberculosis is well documented among sheep, goats and cattle, and has been reported sporadically to affect some equine species, its incidence among llamas is virtually infinitesimal.** The disease has been documented in only two llamas (with two suspected cases) in North America among the probable hundreds of thousands of llamas that have cumulatively inhabited the North American continent during the twentieth century. Ex. 7 at 2. Further, the extant veterinary scholarship indicates that llamas are extremely poor and inefficient paratuberculosis hosts, inasmuch as the disease appears to be fatal to llamas relatively quickly. Ex. 7 at 2. **The CSU scientists unequivocally stated that there is no demonstrable scientific evidence to indicate that llamas pose any realistic, meaningful or measurable threat of transmitting paratuberculosis to any other animals, domestic or wildlife, anywhere.** Ex. 7 at 2. Drs. Spraker, Garry, Getzy and Johnson wrote:

To date, only four cases (3) of Johne's disease have been documented in llamas, although a thorough search of the literature indicates one additional case where typical lesions of the disease were noted but the organism was not specifically identified. Not only has the disease been infrequently found in llamas in North America, but the reported cases have tended to be unusual in being quite young or quite old, as compared to the typically affected cow or sheep. The course of the disease in llamas has been short, with death occurring shortly after clinical suggestion of disease. **It is most likely that the low reported incidence of this problem in llamas is a true representation of the disease in the species because it is unlikely that the disease has been inadvertently overlooked.** By comparison with our domestic ruminant livestock, llamas have tended to maintain a high individual monetary value and, therefore, death and disease in this species has typically been closely scrutinized using standard but extensive diagnostic methods. **Llamas are frequently placed in close contact with the domestic ruminant livestock and thus should have ample opportunity to contract the disease and show signs if they were highly susceptible to this problem.**

Footnote (3)....In their May 5, 1995 letter, Drs. Spraker, Garry, Getzy, and Johnson apparently assumed that the two additional llama paratuberculosis diagnoses -- one in Oklahoma and the other in South Dakota -- would or will be confirmed as valid diagnoses. As noted above, it is the understanding of the Associations that those two cases are still being investigated and only two reported instances of paratuberculosis in llamas (both in the same herd in Colorado) have been scientifically confirmed.

While the low reported incidence of Johne's disease in llamas is significant in itself in suggesting that llamas are an extremely infrequent carrier of the M paratuberculosis organism, these

findings also illustrate another important issue. In the interaction between infectious organisms and mammalian hosts, there are typically strong associations between a given host and a given pathogen species. When an organism invades a host to which it is not optimally adapted, it will usually not develop an endemic infection and rather will tend to occur in a sporadic and somewhat unusual pattern as compared with the disease in the more typical host. This appears to be a common phenomenon in llamas in North America. **To date, there are no identified pathogens that are specifically adapted to llamas as a host species. That is to say, that if you scour the veterinary literature, you will find reports of llamas that have contracted viral and bacterial problems from horses, cattle, sheep and goats. But there are no reported incidences of diseases contracted by these other species specifically from contact with llamas.** This may not be surprising given that llamas are not standard ruminants. While they possess a forestomach for fermentation of vegetative foodstuffs, they have evolved separate from the common hoof stock ruminants, which include our domestic and wild ruminant species in North America.

... **[O]ur current knowledge demonstrates that Johne's disease is uncommon in llamas and is likely contracted by llamas from contact with other species and is not an endemic llama problem. On that basis, it is inappropriate to view llamas as posing a substantial threat as a vector specifically for Johne's disease transmission to wildlife species.**

As we stated in our letter to Mr. Dabney on February 16, we understand that there may be significant reasons to justify banning nonindigenous species from Canyon Lands Park and possibly other park systems based upon diseases, biological, behavioral and ecological arguments. **It is scientifically unsound, however, to formulate a Policy about llama use based specifically on a concern about Johne's disease spread by these animals.** We hope the information we have tried to clarify here is some use in your discussions with the park service about policy.

Ex. 7 at 2-3 (emphasis added).

The fact that Dr. Spraker joined in the May 5, 1995 letter is of course fatal to the scientific validity of the original September 1994 Dabney decision. Dr. Spraker's clarification of his prior statements, a clarification echoed by his co-signing and eminently well-respected CSU veterinary colleagues, demonstrates that the Dabney decision -- again, which Mr. Dabney himself concedes was "based largely upon" his interpretation of Dr. Spraker's 1994 statements -- is not founded on any credible scientific linkage between llamas and the transmission of paratuberculosis. For reasons apparently having nothing to do with science, however, Mr. Dabney has steadfastly refused to reverse his 1994 decision, despite the now effectively retracted, pseudo-scientific basis for that decision.

Scientific truth, of course, is not specific to any geographic area. No less than in Canyonlands, a policy prohibiting the entry of pack llamas in the Planning Area, predicated on an unfounded fear of paratuberculosis transmission by llamas to the wildlife present in the Planning Area, would be equally "scientifically unsound." Without scientific basis, such a ban would constitute arbitrary and capricious administrative decision-making, plainly subject to judicial nullification under applicable federal law.

Part 2 of Kofa Letter

Other Parks, Government Agencies, And Scientists Have Categorically rejected The Dabney Decision

The view expressed by the CSU veterinarians in their May 1995 letter is echoed by Oregon State University Veterinarian Dr. Stanley Snyder.

As a reason for keeping llamas out of areas of our national forests, etc., the threat of llamas disseminating Johne's disease to wild ruminants is quite remote. In Oregon, where Johne's disease in cattle, sheep and goats is quite common and where llama raising is extremely popular, we have not had even a single confirmed case of Johne's disease in llamas....

It is my opinion that reintroduction of wolves into the American West represents a threat to wild ruminants of many orders of magnitude greater than the remote possibility of spreading Johne's disease from llamas.

Ex. 9.

Since the prohibition on llama use was instituted in Canyonlands, other federal government officials have considered prohibiting llama access to public lands. To date, the Associations are unaware of any other prohibitions, with the exception of the prohibition proposed in the instant Draft Plan.

In April 1995, the National Park Service determined not to ban llamas in Glacier National Park. In an April 24, 1995 letter, Chief Park Ranger Stephen J. Frye explained that the available scientific evidence would not support such a ban.

After several months of information gathering, consultation and evaluation, Park officials have decided not to prohibit the use of llamas as pack animals in the park's backcountry. This measure was being considered due to the possibility that llamas could transmit Johne's Disease (a paratuberculosis) to native mountain goats and bighorn sheep.

Initial concern was raised by a Colorado State University veterinary pathologist at the 1994 Desert Bighorn Council Meeting. The occurrence of Johne's disease in a herd of bighorn sheep on Mt. Evans in Colorado resulted in some mortality and prevented that herd from being used as transplantation stock for other areas. The disease was also found in a domestic llama breeding operation in Colorado.

The spread of disease from domestic animals to native wildlife populations is a serious concern for park officials. The Superintendent of Arches and Canyonlands National Parks decided to ban llamas last summer to protect their bighorn populations, some of which are used for transplantation stock and others which are struggling due to various other diseases.

The overwhelming response to inquiries by Glacier National Park officials was that the actual threat posed to indigenous species by llamas was not significant. Johne's disease is very rare in llamas and the risk of transmission is considered minimal.

Ex. 10 (emphasis added).

In response to a June 27, 1995 memorandum from the Director of the National Applied Resource Sciences Center recommending a ban on the use of llamas on public lands based, at least in significant part, on information received from Mr. Dabney and officials at the National Park Service's Southeastern Utah Group, John Fend, the Area Manager of the Cascade Resource Area in Idaho, wrote a February 2, 1996 letter to the Director of the National Applied Resource Sciences Center. Mr. Fend's letter explained in great detail the genesis and spread of misinformation regarding the alleged paratuberculosis transmission by llamas. Mr. Fend urged that the BLM issue a policy statement that "the BLM does NOT intend to ban llamas from public lands based on disease conflicts or risks." Ex. 12. In his letter, Mr. Fend, who has spent the first 15 years of his career as a Range Conservationist, stated:

I must take professional exception to the recommendations to the Director on this subject. I strongly believe the National Park Service, and now the Applied Sciences Center, has misrepresented the extent of the threat/risk of Johne's disease associated with llamas being spread to wild ungulates. Further, I believe this document should have had internal peer review, as it certainly has national implications.

While the National Park Service may have legitimate reasons for restricting the use of non-native species within its boundaries to preserve the integrity of its contained ecosystems, **the Park Service should not be using Johne's disease as the vector for it ban ... it's just not scientifically sound land management (see attached letters from the Colorado State University Veterinary Teaching Hospital and Oregon State University College of Veterinary Medicine.) Similar statements/positions have been offered by the Wyoming State Veterinarian, Dr. Beth Williams, the Idaho Fish and Game State Veterinarian, Dr. Dave Hunter, and Dr. LaRue Johnson of Colorado State University who is the leading Veterinary researcher on llamas in North America.**

Your memo to the Director found its way into the hands of the Wildlife Management Institute, and an article was released in their Outdoor New Bulletin (10/27/95), indicating the BLM and BLM biologists have proposed a Public Lands ban on llamas because the llamas are carriers of Johne's disease. Since release of the Wildlife Management Institute's Outdoor Bulletin, a newspaper article appeared in the Salt Lake Tribune (1/24/95). Other papers have subsequently carried the story citing the Bulletin as the source.

These stories have lead to the rampant spread of misleading information which can have devastating economic effects on the llama industry. The Bureau must not be the source of such information, yet it appears it is.

Ex. 12 at 1-2 (emphasis added).

On February 2, 1996, Regional Forester Dale N. Bosworth issued a letter, after conferring with the Manti-LaSal National Forest, which has administrative responsibility for United States Forest Service ("USFS") lands in southeastern Utah. Mr. Bosworth reported that the USFS:

currently (has] no plans to restrict llama use on the Forest or to take permit action on outfitters and guides who provide llama services. They are aware of the concerns expressed by the NPS with disease transmission, but feel **that there currently is not sufficient scientific information to warrant such a restriction** on National Forest System lands in southeast Utah.

Ex. 13 (emphasis added).

Further, on February 7, 1996, Utah State Veterinarian Michael R. Marshal responded to an inquiry regarding the prohibition of llama use in the Utah national parks (presumably Canyonlands), memorializing his belief that the Canyonlands decision was not based on credible science.

....I have been told the reason [the National Park Service is] prohibiting llamas from the national parks is because of a perceived disease threat from Johne's disease to the animals in the park. **If I understand the current research material correctly, there is a grand total of four llamas in the United States which have been shown to have Johne's disease. Likewise to the best of my knowledge, there is no research that shows this disease transmissible to big horn sheep or elk from llamas.**

Speaking in terms of risk assessment and epidemiology, I believe the ban of llamas from national parks is a poor decision on behalf of the National Park Service. It is my impression that the National Park Service prefers to have llamas banned from the park for other reasons, and is using this medical statement about Johne's disease as an excuse to do so. It is difficult for me to understand why such medical decisions are reached for the state of Utah, without the input from Utah veterinary medical regulatory officials.

In summary, **I do not believe that medical science support the ban of llamas in national parks.**

Ex. 14 (emphasis added).

Finally, the Associations have recently learned that the Superintendent of the Glen Canyon National Recreation Area, which is adjacent to the Canyonlands National Park, will shortly issue a public reversal of the pack llama access ban that Glen Canyon instituted simultaneously with Mr. Dabney in September 1994 and based on information supplied by Mr. Dabney. The Glen Canyon Superintendent has indicated that he will state, as the basis for his reversal, that there is no credible scientific basis for his previously taken action. Promptly upon receipt, the Associations will submit to the Agencies a copy of the Glen Canyon reversal.

Part 3 of the Kofa letter

Congressional Concern Over The Dabney Decision

On February 20, 1996, United States Representative Michael D. Crapo sent a letter to Secretary of the Interior Bruce Babbitt in which he expressed his concern about BLM's consideration of a prohibition of llama use on public lands. Congressman Crapo specifically requested any and all

information relating to any proposed bans. Ex. 16. Mr. Tipton's April 3, 1996 letter informing Congressman Crapo of BLM's new policy regarding llamas on public lands was in response to Congressman Crapo's letter. Ex. 2.

In addition to Representative Crapo, at least three other United States Representatives are concerned with the spread of inaccurate information concerning paratuberculosis and have recently written letters questioning the prohibition of llamas in Canyonlands and expressing their fear that the decision would be followed by other managers of public lands. On April 9, 1996, United States Representative James V. Hanson, in his capacity as the Chairman of the House Subcommittee on National Parks, Forests and Lands, sent a letter to the Director of the National Park Service, Mr. Roger Kennedy, in which he specifically noted the lack of science used in the Canyonlands decision. Representative Hanson asked Mr. Kennedy to "intercede and reverse [the Canyonlands] policy" because it was not justified by science. Ex. 17. He wrote:

Several months ago, the Superintendent of Canyonlands adopted a ban on the use of llamas as pack animals in the park. In correspondence to me dated June 26, 1995, he stated that the primary justifications for that action were based on the regulatory definition of "pack animals" as contained in 36 CFR 1.4 and 2.16, and in order to prevent transmission of disease (ruminant paratuberculosis of Johne's Disease) to desert bighorn sheep. Neither of these arguments have merit.

....The second justification for the llama ban, the threat of the spread of Johne's disease to bighorn sheep, is even more questionable. According to scientists at Colorado State University (see attached letter), there have only been 4 cases of Johne's disease reported as occurring in llamas. These scientists go on to state, "It is scientifically unsound, however, to formulate a policy about llama use based specifically on a concern about Johne's disease spread by these animals." The Utah Department of Fish and Game concurs in this analysis and has refused to endorse the policy adopted by the Superintendent, even though they fully share in any concern about disease transmission to the bighorn sheep. I must also point out the inconsistency with this policy compared to the bison management issue at Yellowstone National Park, where the Park Service has argued for years that no action to control brueallods was necessary because there has never been a documented case of the transmission of that disease from bison to cattle.

In further discussions with the Superintendent, he has stated that he adopted this approach because he believes he should "err on the side of protecting the resource." **We do not hire park managers to make mistakes, we hire them to make sound judgments on the basis of the best available scientific information.**

...However, [the] concern I have is the precedent which would be established if this decision is permitted to stand. It will be a signal to other public land managers that they can adopt similar bans on the use of llamas, without a thorough review, or based on a mistaken assumption of the potential of disease transmission to wildlife populations.

Ex. 17 (emphasis added).

In a February 5, 1996 letter to Mr. Dabney, United States Representative Wayne Allard, himself a veterinarian, wrote:

I have been informed by Llama organizations in my district of the action taken by yourself to ban llamas from the Canyonlands National Park. I have studied the history of this particular situation stemming from the original commentary by Dr. Terry Spraker of Colorado State University that seemingly was misquoted by a news reporter.

I am a veterinarian and have recently finished some continuing education courses at Colorado State University. I spent some time discussing with my colleagues paratuberculosis in domestic animals. **In this case it seems as there is no scientific basis for banning llamas in National Parks or BLM land based solely on the remote possibility of Johne's disease.**

Ex. 18 (emphasis added).

Finally, United States Representative Helen Chenoweth dispatched her own letter on February 24, 1996 to the Director of the BLM's National Applied Resource Sciences Center, Mr. Lee Barcow, requesting that the Center provide "any and all information relating to [the] proposed [llama] ban." . " Ex. 19.

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The Scientific Evidence Presented At The CSU Workshop

The March 12, 1996 CSU Workshop is the most comprehensive gathering of scientific experts and noted authorities on the transmission and epidemiology of Johne's disease to date. Participants in the Workshop included Dr. LaRue Johnson and Dr. Terry Spraker from Colorado State University as well as featured scientists Dr. Ellen Belknap from Colorado State University, Dr. David Getzy from Colorado State University, Dr. Beth Williams from the University of Wyoming, Dr. Sue Stehman from Cornell University and Dr. Harley Moon from Iowa State University. In addition, representatives from the BLM, USFS, ILA, American Sheep Industry, the American Association of Small Ruminant Practitioners, the National Park Service and the FWS also participated in the CSU Workshop. The CSU Workshop was recorded and memorialized by transcript ("CSU Transcript") so that the scholarly presentations and discussions regarding the transmission and epidemiology of Johne's disease, as well as the conclusions arrived at by the participants in the Workshop, could be memorialized for future policy-making decisions. See CSU Transcript, Ex. 20.

At the Workshop, the transmission of Johne's disease by pack llamas in National Parks or on public lands was discussed at length by the featured scientific speakers and the attendees. Throughout the discussion, there was almost universal agreement as to the scientific evidence regarding Johne's disease and its transmission by llamas.

The incidence of Johne's disease in llamas appears to be virtually non-existent. At most, there have been only two (2) confirmed and two (2) more suspected cases of Johne's disease diagnosed llamas in North America during this century. Ex. 20 - Belknap at 21; Stehman at 101. Two of

those four cases came from a herd of approximately 200 llamas in Colorado. After the discovery of Johne's disease in the two llamas in the herd, the entire herd was systematically tested with no new cases in the several succeeding years. There was no evidence that paratuberculosis had been transmitted to any other llama in the herd. Ex. 20 - Belknap at 23-24. The only epidemiology or pathogenesis study on llamas with Johne's disease could not find any infected adult llamas to include in the study. Dr. Tim Deveau, who works with the U.S. Department of Agriculture's APHIS unit in Wisconsin, tried to determine the incidence of diarrhea in adult llamas with Johne's disease. He interviewed over 75 llama owners and breeders and could find no diseased animals to incorporate into his investigation. Ex. 23, Ex. 20 - Belknap at 30.

Johne's disease has been isolated in at least one Rocky Mountain Big Horn Sheep herd in Colorado. Ex. 20 - Williams at 46. However, it has not been diagnosed in Desert Big Horn Sheep. Ex. 20 - Williams at 66. As noted below, there are many factors which influence the transmission of Johne's disease, and it is quite possible that Desert Big Horn Sheep behavior may reduce the breed's susceptibility to paratuberculosis, relative to the Mountain Big Horn Sheep variant. Ex. 20 - Williams at 66.

Johne's disease is transmitted between animals primarily by fecal/oral transmission. Ex. 20 - Stehman at 75; Williams at 52.4 However, even animals that ingest substantial quantities of fecal material may not necessarily become infected with paratuberculosis. Ex. 20 - Stehman at 85. There are numerous animal behavioral characteristics and ambient environmental conditions that influence the likelihood of Johne's disease transmission. Each of these factors constitutes a discrete, independent probability condition. Unless enough of these independent conditions are present, the transmission of paratuberculosis between AU animals is simply impossible, let alone transmission between occasionally traversing pack llamas and free-ranging wildlife in an expansive refuge. These factors include:

Footnote (4)... Indicating their special resiliency to paratuberculosis, llamas have been identified as one of the few species that are relatively immune from what is the secondary paratuberculosis transmission mechanism: *in utero* transmission. Ex. 20 - Getzy at 4 1.

FACTOR SOURCE (Ex. 20)

1. **High Dose -- extremely high concentration of organisms required for transmission**

Stehman at 75, 14849, 157;
Williams at 53, 68. (108)

2. **Continuous/Repeated Exposure exposure for weeks is required for transmission to sheep**

Stehman at 148-49;
Williams at 53, 68,
Moon at 187-188.

3. **High-Shedding ("Clinical") Llama --only terminal or clinical animals will likely introduce a sufficient concentrated dose into the environment for transmission to occur**

Stehman at 151, 158;
Williams at 53-54, 68-69.

4. **Healthy Pack Llama -- a clinical, high-shedding llama is emaciated, wasted, and generally not athletic enough to serve as a pack animal.**

Moon at 192-193,
Stehman at 148-149
Williams at 48-49; 54-55;
Getzy at 39-40.

5. **Alkalinity of soil -- acidic soil is more conducive to organism survival**

Williams at 67;
Stehman at II 5.

6. **Humidity -- areas that are damp,foggy and rainy are more conducive to organism survival**

Williams at 57, 67-68;
Stehman at 122.

7. **Temperature -- colder areas are more conducive to organism survival; sunlight and heat tend to kill the organism**

Williams at67;
Stehman at 122-23

8. **Elevation -- low elevation (sea level)is more conducive to organismsurvival**
<

I>Williams at 57

9. **Density -- a high density of animals is more conducive to transmission**

Williams at 53, 57

10. **Light -- shade is more conducive to organism survival**

Williams at 67;
Stehman at

11. **Water -- pooling of water is more conducive to organism survival**

Stehman at 97.

12. Animal behavior/preferences -- Big Horn Sheep are unlikely to ingest fecal material of other species

Williams at 68.</P>

13. **Animal age - higher organism concentrations are required to infect older individuals**

Stehman at 76, 78
Williams 49-50.

While all these factors variously influence transmission of Johne's disease from one animal to another, some factors make the risk of the transmission of Johne's disease from a pack llama to a desert big horn sheep in the Planning Area particularly negligible. First, a llama that is capable of packing is highly unlikely to have a clinical case of Johne's disease and shed enough of the organism to infect a big horn sheep or any other animal.. Transmission requires a high dosage of the organism and llamas classified as "clinical" are the high-shedding animals. However, a clinical llama is a very sick animal and certainly physically unable to pack due to emaciation, wasting, and lack of strength. Therefore, were a llama first trained and ultimately selected for packing in the Planning Area, or any other area, it would, almost by definition, not be an individual capable of transmitting a sufficiently concentrated dosage of organism to pose a credible threat of transmitting *paratuberculosis* to native wildlife or to Big Horn Sheep.

Second, the unique and specific environmental conditions of the Planning Area make it a hostile environment for paratuberctilosis and paratuberctilosis transmission. The organism survives best in an ambient environment that has: a relatively wet climate, no ultraviolet light, acidic soil conditions, lower elevation, and moderate temperatures. Conversely, the organism's survival rate is significantly inhibited by heat, dryness, alkaline soil conditions, elevation and exposure to ultraviolet light. It is our understanding from telephone conversations with Milton Haderle, the Refuge Manager at the Planning Area, that the environmental characteristics at the Planning Area include:

Characteristic Planning Area Condition

1. **Temperature**
Mean Average = 72.91
Mean High = 84.6 0
Mean Low = 6 1.1 0
Extreme High = 1221
Extreme Low = 23 1

2. **Moisture**
Average Yearly Precipitation = 6.15"
Range = 3.00" to 8.5"

3. **Sunlight**
350 Days of Full Sunlight

The environmental characteristics of the Planning Area thus discourage Johne's organism survival. A climate such as that present at Point Reyes, California presents a more conducive (damp, foggy, rainy, at sea level) environment, although even there the risk of paratuberculosis transmission from a pack llama to another animal would still be negligible as a result of nonclimatic (i.e. animal behavioral) factors. Ex. 20 - Williams at 57-61. Further, animal density is a key epidemiological factor. The classic Johne's disease "incubator" is a densely packed dairy farm or shed where cows are proximate to one another, to a stationery food source and to fecal matter. Ex. 20 - Stehman at 1 12. The vast expanse of the Planning Area and the transient behavior of native species located there militate strongly against paratuberculosis transmission.

Big horn sheep, both mountain and desert, are unlikely to ingest any fecal matter from other species, much less the large quantity necessary to contract Johne's disease. Specifically, the behavior and nature of the desert big horn sheep make them even less likely animals to become infected with paratuberculosis than their mountain-inhabiting cousins. Ex. 20 - Williams at 66.

In sum, the scientific evidence presented at the Workshop establishes that the risk of the Johne's disease transmission from llamas to big horn sheep (Rocky Mountain or Desert) or any other native, North American ungulate is infinitesimal and does not justify a ban on pack llamas from public lands. Ex. 20 - H. Moon at 193; Stehman at 148; Ex. 21 (Statement by Dr. Harley Moon); Ex. 22 (Statement by Dr. Elizabeth Williams); see schematic representation of risk factors at the end of this comment. Mike Miller, a veterinarian with the Fish & Wildlife in Colorado, has specifically worked with and studied the Colorado herd of Rocky Mountain Big Horn Sheep that has been infected with Johne's disease. It was his assessment that "the likelihood of [transmitting] Johne's disease through fecal/oral transmission] requires a tremendous number of coincidences that just aren't going to lend themselves to happening in very many places. The fact that we don't have Johne's all over the west in the Big Horn Sheep or anything else lends a lot of credence to just how unlikely that scenario would be." Ex. 20 - Miller at 166.

Since the risk of llama paratuberculosis transmission is near zero, in order to sustain a pack llama ban based on a perceived threat of such transmission, the Agencies would effectively have to adopt a zero-risk tolerance policy with respect to the Planning Area. The folly of such a policy -- with its attendant surrealistic view of costs and benefits and its resultant degradation in public confidence in administrative decision-making -- was addressed by nationally respected scientist Dr. Harley Moon at the CSU Workshop. Dr. Moon noted that a policy of zero tolerance is not sustainable in today's society and is not a goal that can be practically followed by those charged with managing the Nation's wildlife and environmental heritage. Ex. 20 - H. Moon at 193-94.

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Other Research And Studies Regarding The Transmission Of Diseases By Livestock

Other research and studies corroborate the conclusions of the scientific panelists at the CSU Workshop and the Associations have included, as Exhibits to these comments, several scientific journal articles reporting on research and epidemiological studies that have been conducted in this area. Ex. 24 - 35. These articles consider the transmission of various diseases, including paratuberculosis, by livestock, llamas, goats, cattle, horses and sheep, not merely whether those diseases have been diagnosed in certain species. These scholarly monographs document the incredible resiliency of llamas to paratuberculosis and other diseases, as compared to other livestock animals, and their manifestly unlikely role as paratuberculosis transmitters.

Further, it appears that the primary scientific authority relied upon by the Agencies in crafting the Draft Plan's proposed llama prohibition is the very well-respected scholarship of Dr. Beth Williams of the University of Wyoming, one of the scientific panelists at the CSU Workshop. The Draft Plan states, in pertinent part:

Johne's Disease (paratuberculosis) transmission from domestic llamas has been identified as a potential threat to North American native ungulate species (Williams et. al., 1979, 1985).

Ex. 1 at 35.

In fact, nothing in either the 1979 or 1985 monographs published by Dr. Williams and her colleagues supports the above statement in the Draft Plan. The 1979 Williams article, entitled "Paratuberculosis (Johne's disease) in Bighorn Sheep and a Rocky Mountain Goat in Colorado," Ex. 3 1, essentially reports that paratuberculosis had been isolated and diagnosed in three Bighorn Sheep and a Rocky Mountain goat. In a brief introductory paragraph and as an aside, the 1979 monograph quite accurately mentions that paratuberculosis: has been reported in captive wild species, including white-tailed deer, roe deer, European red deer, moose, aoudad, mouflon, camel, bighorn sheep, reindeer, Japanese sika deer, water buffalo, yak, gnu, and llama.

Ex. 31 at 1 (citations omitted). Thus, while the 1979 Williams study acknowledged that paratuberculosis had been reportedly ***diagnosed*** in one llama, **the 1979 Williams monograph says absolutely nothing about whether llamas are remotely likely *transmitters* of paratuberculosis to "North American native ungulate species." as the Draft Plan represents to the public.**

Nor does the 1985 Williams study support the bald statement contained in the Draft Plan that "(paratuberculosis) transmission from domestic llamas has been identified as a potential threat ... 11 Entitled "Lymphocyte blastogenesis, complement fixation, and fecal culture as diagnostic tests for paratuberculosis in North American wild ruminant and domestic sheep," Ex. 29, the 1985 American Journal of Veterinary Research article by Dr. Williams and her co-authors **does not even mention the word "llama.** " Indeed, one of the co-authors of the 1985 Williams study is Oregon State University Veterinarian Dr. Stanley Snyder who, as noted above, finds the risk of llama paratuberculosis transmission to be "quite remote." Ex. 9. Rather, the 1985 study discusses various methodologies for diagnosing the presence or absence of paratuberculosis in deer, elk, domestic sheep and Bighorn hybrid sheep, makes several recommendations about

methodological approaches to diagnosis, and suggests further study. As with the 1979 monograph before it, Dr. Williams' 1985 article could not fairly be read to support any view -- one way or the other -- about the transmission of paratuberculosis by llamas to any other animal, wildlife or domestic.

Further, notwithstanding the silence of her 1979 and 1985 articles on the subject, Dr. Williams does have a strong view on the transmission issue: she categorically rejects precisely the interpretation of her scholarship being touted in the Draft Plan to support the proposed llama prohibition based on the risk of paratuberculosis transmission to Bighorn Sheep and native North American ungulate wildlife.

The rationale for prohibiting use of llamas and domestic goats in these areas is based on the statement "Johne's Disease (paratuberculosis) transmission from domestic llamas has been identified as a potential threat to North American native ungulate species (Williams et al., 1979, 1985)". **As author of the scientific papers cited as justification for prohibiting goats and llamas from these areas, I wish to point out that neither paper mentions llamas or domestic goats as "a potential threat to North American native ungulate species". In fact, the 1985 paper does not even mention llamas. Use of these citations, in the context of rational for prohibiting llamas and domestic goats due to the potential transmission of paratuberculosis, is a gross misinterpretation of their context.**

It is my opinion, based on years of studying mycobacterial diseases of wild species and knowledge of the scientific literature concerning paratuberculosis in a variety of wild and domestic species, that the risk of introduction of paratuberculosis (Johne's disease) via infected llamas into National Parks in the southwestern United States is insignificant.

Ex. 22 (emphasis added).

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Resolutions And Policy Statements Of Other Governmental Agencies And Private Organizations

BLM is not the first organization to determine that the scientific evidence concerning the transmission of Johne's disease does not justify a ban of llamas on public lands. In response to the Canyonlands decision, veterinarians in the Western States Livestock Health Association and the Western District United States Animal Health Association both passed a resolution recommending that no public lands be closed to llamas without sufficient scientific evidence indicating that disease transmission will occur. Ex. 36. The American Association of Small Ruminant Practitioners has also put forth a policy statement which states that the scientific evidence does not justify a ban of llamas on public lands. Ex. 3 7.

Regulatory Authority To Prohibit Llamas On Public Lands

BLM's authority, as found in FLPMA, Executive Order No. 11987 (1977), 43 CFR

§ 8560. 1-1, and 50 CFR §§ 25.21, 25.31, 27.52, and 35.7, to regulate public lands is admittedly broad and discretionary. Obviously, and as the Agencies are aware, that broad discretion must nonetheless be exercised reasonably, rationally, and in the public interest. The Associations believe a prohibition on llama access to the Planning Area -- at the very least one based on the threat of paratuberculosis transmission to Bighorn sheep or other wildlife -- would be patently unreasonable and unjustified in light of the available scientific evidence.

In addition, the Draft Plan's implied classification of llamas as an "exotic species" is exceedingly inappropriate in light of other federal animal classification regulations, as well as the llama's long history in North America. First, the United Stated Department of Agriculture has classified llamas as farm animals, even when they are used solely as pack animals:

Farm animal means any domestic species of cattle, sheep, swine, goats, llamas, or horses, which are normally and have historically, been kept and raised on farms in the United States, and used or intended for use as food or fiber, or for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber. This term also includes animals such as rabbits, mink, and chinchilla, when they are used solely for purposes of meat or fur, and animals such as horses and llamas when used solely as work and pack animals.

See, generally, 9 CFR § 1. 1. Further, llamas are the oldest domesticated farm animal in the New World and, in fact, the common ancestor of all camelids was indigenous to North America. See Ex. 35. Given this history, it is inaccurate to label llamas as "exotic" to the United States.

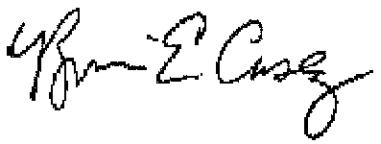
Since the authority granted by Executive Order No. 11987 (1977), 43 CFR § 8560. 1-1, is expressly limited to "exotic" animals, the Associations believe the Agencies would be acting ultra vires were they to rely on that Executive Order in taking any regulatory action respecting llamas, especially in light of the aforementioned USDA classification, as well as the "historic" presence of llama ancestors in North America.

Conclusion

The Associations recognize that the protection of wildlife in the Planning Area is critical to maintaining the integrity and beauty of the Kofa wilderness area for future generations. The Associations also understand the additional, particularized importance of the Planning Area wildlife, since the Kofa wilderness serves as a vast resource for wildlife transplantation throughout the southwestern United States. The Agencies' legitimate and vital mission to protect our national wildlife heritage in the Planning Area and elsewhere is best served, however, by administrative decision-making that is transparent, open, and -- most important -- well founded in science, fact, and truth. In the important effort to protect precious wildlife, any reliance on speculation based on off-the-cuff remarks would taint any eventual regulation. Reliance on such "junk science" would serve only to undermine the legitimacy and credibility of the regulatory decision-making process itself. The Associations strongly urge the Agencies to weigh carefully and deliberately the available scientific data, which demonstrates a powerful disconnection between llamas and ,paratuberculosis transmission, before acting to implement the Draft Plan. The Associations are confident that, following such a serious and fair-minded review, the Agencies will determine that there is no credible scientific basis for prohibiting pack llama

access to the Planning Area, as proposed in the Draft Plan and for the reasons stated therein. Finally, the Associations stand ready to assist the Agencies in obtaining any additional scientific information and testimony that might be necessary to fairly conclude this matter.

Very truly yours,



For GIBSON, DUNN & CRUTCHER

BEC/cvr

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