Greater Appalachian
Llama and Alpaca
Association

September 11, 2019

USDA Forest Service
Attn: Jeff E Schramm, Forest Supervisor
Chugach National Forest
161 E. 1st Ave, Door 8
Anchorage, AK 99501

USDA Forest Service
Attn: Dave Schmid, Objection Reviewing Officer
Alaska Region
709 W. 9th St.
Juneau, AK 99801

RE: Pack Llama Prohibition/Restriction – Chugach National Forest Land Management Plan (CNFLMP)

Dear Mr. Schramm and Mr. Schmid:

I am writing to you on behalf of the 3000+ llama owners and users represented by the Greater Appalachian Llama & Alpaca Association (GALA), the International Llama Registry (ILR), and the Rocky Mountain Llama Association (RMLA).

The North American llama (alpaca) community has recently taken the opportunity to review the final CNFLMP document no. R10-MB-828c published August 28, 2019 by Chugach National Forest (CNF) at https://www.fs.usda.gov/project/?project=40816. **We are extremely concerned about the issuance of a final CNFLMP containing prohibitions/restrictions on the use of "lamas" (apparently in reference to pack llamas) for the following reasons:**

- **The 2018 draft CNFLMP and corresponding 2018 draft EIS did not address any proposed action concerning "lamas" so consequently the public was not afforded an opportunity to comment on any proposed CNF rule-making involving pack llamas during that open public comment period in 2018. What was the purpose of the draft CNFLMP (as part of the required NEPA process) since CNF did not address the elimination of this historical established user group in this plan? Because CNF has short-circuited the NEPA process by not including the llama packing community, we are beyond the prescribed public input stage (associated with the draft CNFLMP) and now into the protest stage. The public was first made aware of this substantive change (that eliminates a user group) during the current 60 day protest period associated with the final CNFLMP. At a minimum, it creates a public perception that the spirit of the NEPA process has been sidestepped by CNF.**

Our organizations have a "disease committee" and a website www.packllamas.org to provide scientific information about pack llamas and help clear up any misconceptions/perceived disease issues. This committee also makes periodic contact with various public land management agencies to stay informed as to any plans by regulators at these agencies to formulate pack llama regulations or policy that are based on "perceived disease issues". Phil Nuechterlein, lives in Alaska and is on this committee. It is our understanding from talking to Phil, that he was in communication by telephone and email with the CNF Wildlife Program Manager, Bret Christensen in 2017 and again by telephone on June 20, 2018 when Bret confirmed Phil's observation that the draft CNFLMP did not contain any information with respect to pack llama policy. Phil informed Bret as to our website www.packllamas.org and also the Alaska Department of Fish and Game (ADF&G) position on this issue. Bret assured Phil that there were no plans to address pack llamas in the final CNFLMP (as evidenced by the draft CNFLMP). Bret also told Phil that he would contact him in the event that CNF were to propose any pack llama policy with respect to any "disease issues". Phil never heard back from Bret Christensen.

- **It is unclear why CNF refers to llamas as "lamas" in the final CNFLMP.** Is it an unintentional misspelling? Is it an intentional reference to llamas by genus instead of by common name? If so, why is CNF inconsistent in identifying domestic sheep and domestic goats by common name rather than by genus? Regardless of CNF intent, a word search of the final CNFLMP (and relating documents) using the commonly used words such as "llama", "llamas", or "camelids" turns up nothing. Consequently, the unsuspecting public might assume that the CNFLMP has not changed any policies with respect to pack llamas. They would have to read the entire document word for word to uncover CNF's policy regarding pack llamas (as we did).

  There is another "outside of process" reference to "lamas" on page 13 of the "Purpose and Need" of the Final EIS (Volume I)..." *Updates to text were made for clarification purposes in response to comments. The Threats to Abundance, Distribution or Persistence was updated. The text on domestic goats, sheep, or lamas was updated.*" This would go beyond characterization as an update or clarification. It is an addition and a significant change that expands the scope and impact of the management plan by eliminating a user group. It is represented that the updates made were in response to comments received on the draft EIS. A search of the 5,376 comments contained in the comment database showed no comments regarding llamas, by genus or species reference. To merit the addition to the final management plan, comments advocating the addition of "lamas", as a "threat", would certainly need to be multiple and backed by compelling scientific documentation. The comments, documentation, and the evaluation process that prompted CNF to include the addition in the final plan need explanation and need to be open to additional comment before finalizing the management plan. Lacking actual comments, documentation, rationale, or formal notice, CNF is clearly arbitrary and lacking transparency in banning "lamas".

- **CNF provides no scientific justification for such a prohibition/restriction.** It appears that the sole justification in the final EIS (under References) for this prohibition/restriction is a Canadian publication, ***Garde, E., et al. 2005*** *"Examining the Risk of Disease Transmission between Wild Dall Sheep and Mountain Goats and Introduced Domestic Sheep, Goats, and Llamas in the Northwest Territories"*. The Garde publication on page 2 states "...there is insufficient data available to clearly assess the role of camelids as a source of disease at this time" The Garde publication as referenced is clearly not a scientific document by its own admission, rather it is a hypothetical risk scenario. **If "lamas" pose a unique disease transmission risk as compared to other pack stock (such as horses that are not identified in the CNFLMP as a disease risk) then the onus would be on CNF to provide evidence of such risk.**

- **CNFLMP cites research showing disease issues with sheep and goats that prompt separation advocacy and proceeds to arbitrarily add "lamas" for the same separation consideration. Not only is this in diametric opposition to research citing no disease issues, CNF is disregarding the facts concerning taxonomic separation and disease epidemiology of llamas.** Llamas are from the family Camelidae while wild sheep, domestic sheep, and goats are from the family Bovidae. Their evolutionary pathways diverged beginning 40 million years ago. Consequently, strong species barriers (similar to horses) make llamas extremely unlikely to transmit disease as compared to goats and sheep. See attached letter from the late Dr. Murray Fowler (recognized camelid expert) to ADF&G dated April 9, 2012 (public record obtained from ADF&G).

- **The CNFLMP appears to be inconsistent with USDA – Forest Service research and policy regarding the "pack llama disease issue" in other Forest Service jurisdictions.** The Shoshone National Forest Land Management Plan Revision FEIS Volume II states "Pack animals that do not pose disease transference issues including llamas, horses, donkeys, and assistance dogs are not restricted for use by elderly forest visitors." Also see USDA – Forest Service research/technical publications entitled *"A Review of Disease Related Conflicts between Domestic Sheep and Goats and Bighorn Sheep"*, also see *"A Process for Finding Management Solutions to the Incompatibility between Domestic and Bighorn Sheep"*. Both Forest Service publications specifically address pack llamas with disease research that is favorable to their use in wild sheep habitat.

  The Whiskey Mountain Bighorn Sheep Herd is on the Shoshone National Forest. In July 2019, the Wyoming Game and Fish Department released the Whiskey Mountain Bighorn Sheep Plan. "Experiments have been conducted to evaluate the potential for respiratory pathogen transference from elk, white-tailed deer, mule deer, horses, llamas, and cattle. There was little indication that any of these animals posed a risk to bighorn sheep **(Schommer and Woolever 2008, Besser et, al. 2012a, and Besser et. al. 2012b)**"

- In the CNF EIS process, from draft to the final land management plan, the CNF repeatedly cites the scientific studies and documents: **(Jex et al. 2016), (WSWG 2012), (WAFWA 2017), (TWS-AAWV 2015), (Schommer and Woolever 2008).** They are cited with references to domestic livestock, domestic sheep and goats, domestics, and other hooved animals. "Lamas" and "llamas" are not a part of the CNF's conversations or comments in the DEIS process.

  However, in fact, the research CNF cited DOES include the conversation, directly and indirectly by taxonomic order and species. "Lamas" and "llamas" are clearly mentioned as a non-threat to wild sheep. The CNF cites and uses this research to justify the "spatial and temporal" separation and banning of domestic sheep and goats, while ignoring the same research with reference to "llamas" as not a threat. Specifically, **(Jex et al. 2016)** defines "spatial and temporal" *as "Effective separation is defined as spatial or temporal separation between thinhorn sheep and domestic sheep or goats. Reducing the potential for association between those taxa* (emphasis added) *and the likelihood of transmission of pathogenic organisms or parasites between species is critically important." Specifically,* **(Schommer and Woolever 2008) Page 4**, *"Planned Penned Experiments With Other Species (Foreyt 1992a, 1994) and Foreyt and Langerquist (1996) conducted eight independent contact experiments involving bighorn sheep penned with.... 5) llamas; 7) horses; with no deaths. These findings suggest that the presence of other species in pens itself is unlikely to lead to bighorn sheep deaths and that species other that domestic sheep are considerably less likely to transmit microbes fatal to bighorn sheep...".* And finally, all of the WAFWA cited research material in this CNF plan do not include lama or llama, and it evolved this way, over decades, because pack llamas are NOT a threat.

- **The final CNFLMP position on pack llamas is at odds with the official position of ADF&G.** Per the attached letter from ADF&G dated June 11, 2018, the Department's position is "at this time we have no intention to promote or support limiting the use of South American camelids on public land in the State of Alaska". This decision was made by ADF&G despite the fact that they supported and helped pay for a camelid disease study (RA) report. The ADF&G letter states "there is no significant information in the RA. After discussing the document internally and with other biologists from several jurisdictions (including the Western Association of Fish and Wildlife Agency Wild Sheep Work Group - WSWG), we will continue to focus and enhance our evaluation of disease risk from species other than llamas or related camelids. There is not enough information presented in this report or other current publications to warrant spending additional resources on this issue." Furthermore, the ADF&G letter states "we understand that the WSWG pulled the RA report from their website partially due to some concerns about the report itself."

The Western Association of Fish and Wildlife Agencies (WAFWA) positions are foundational to ADF&G's stated policy. WAFWA is widely recognized among state and federal wildlife agencies as the scientific reference for wildlife disease issues. The CNFLMP position on "lamas" is in direct conflict with wildlife disease management recommendations of WAFWA wildlife researchers and veterinary authorities.

- **CNF apparent intent is to invoke the "precautionary principle."** It is our understanding from talking to Phil Nuechterlein about his telephone conversation on September 3, 2019 with Sue Jennings (CNF Revision Team Leader in communication with CNF Bret Christensen, CNF Wildlife Program Manager) that "CNF does not have enough information" on the pack llama disease issue so they are "invoking precautionary measures". Our previously stated documentation shows there is ample information available to make the application of "precautionary principle" unnecessary. "CNF's anemic efforts to gather and understand that information or to gain input through comment are not a justification to invoke precautionary principle" as an alternative to science-based analysis.

  We would like to point out to CNF that horses (and llamas) either do pose a disease risk or they don't pose a disease risk, regardless of how long they have been used and regardless of any history of their traditional use. If CNF's position is that horses do not pose any risk then we strongly disagree. Horses (equine species) are a greater disease risk than llamas as they have a number of endemic disease susceptibilities (equine influenza, equine encephalomyelitis, equine herpesvirus rhinopneumonitis-EHV, Potomac Horse Virus, vesicular stomatitis, strangles, etc.) and are overall less healthy than llamas. Llamas have no identified endemic diseases and are naturally healthy and disease free. Both llamas and horses have been pen-tested with wild sheep and shown to not carry *nor transfer* the pathogens that are lethal to wild sheep. However, horses are less healthy overall and can carry respiratory infections secondary to their primary endemic infections that could be transferrable to wild animal populations including wild sheep. Additionally, llamas have an exceptionally strong, broad spectrum immunologic system such that their serum is being considered in development of flu vaccines for humans that give a wider spectrum and more enduring protection. See https://www.health.com/cold-flu-sinus/llama-flu-vaccine . All current information and history indicate llamas present less disease threat to wild sheep than horses and humans that develop zoonotic infections (TB, MAP, and CE) which can be transmitted to wild sheep.

  In view of these considerations, it would be very arbitrary and prejudiced to eliminate llamas on the basis of "precautionary principle" while allowing continued access to horses and humans. If CNF's argument is guided by the "precautionary principle" which argues for a conservative approach (i.e. prove the activity is safe before allowing it to occur, rather than prove it is unsafe before prohibiting it) then CNF will have to place the same restrictions on equine pack stock that CNF is placing on camelid pack stock. Chugach NF must recognize that they cannot regulate horses and llamas differently in the absence of any scientific evidence that would demonstrate

otherwise. Chugach NF cannot "cherry pick" the precautionary principle when the same taxonomic principles and barriers to disease transmission exist. Chugach NF also cannot "cherry pick" hypothetical risk scenarios from Canada in an effort to "trump" the wealth of US scientific literature that demonstrate the extended safety record that llamas have demonstrated in the US over more than 40 years of use in sensitive wild sheep and goat habitat. CNF must choose between invoking the precautionary principle on both llamas and horses, or invoking the precautionary principle on neither.

The final CNFLMP decision states on page 55, "Personnel conducting Forest Service management actions or authorized activities (employees, contractors, cooperators, and special use permit holders)" shall not use or keep "lamas". While this apparently does not apply to public recreational pack llama users, it does not allow "lamas" for these specified activities (to include commercial llama packing). CNF's point of introduction through use by sanctioned personnel leaves the door wide open for banning private recreational use in a predictable, logical progression. If they are established as a threat in official use, it would follow they are a threat in all types of use. This decision would set precedence on the USDA-USFS.
In summary, we request that CNF refrain from identifying "lamas" (pack llamas) as a disease threat and remove all reference in the final CNFLMP that implicate them as a disease threat. By this letter, GALA and sister organizations/constituency are providing formal notice of objection to the Final CNLMP during the 60 day objection period as defined under (36 CFR 219.52(c)(5)). We also look forward to a timely response to the issues raised in this letter.

Sincerely,

Barbara Baker, President GALA
Phone: (757) 442-2151
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12564 Hacksneck Road
Hacksneck, VA. 23358

Enclosures: ADF&G June 11, 2018 letter to GALA
Dr. Murray Fowler April 9, 2012 letter to ADF&G

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game
DIVISION OF WILDLIFE CONSERVATION
Headquarters

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June 11, 2018

Barbara Baker, President
Government Relations Liaison
Greater Appalachian Llama & Alpaca Association

Dear Ms. Baker,

We receive your letter recently in regards to the *Risk assessment on the use of South American camelids for back country trekking in British Columbia* study and report (RA) commissioned by British Columbia's Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNR). We appreciate your interest on this issue and want you to know that at this time we have no intentions to promote or support limiting the use of South American camelids on public land in the state of Alaska.

For your information, we supported the RA project at the request of the FLNR wildlife veterinarian with a contribution of $5,000. Alaska Department of Fish and Game (DFG) staff were told the total cost for the project was approximately $25,000. The final report was submitted to DFG because we provided funds and hoped to get more information on what risks there may or may not be with camelid / wildlife interaction or contact. We believed it was a worthwhile project hoping that if potential disease risks could be more accurately assessed we could move on to solutions and disease risk issues with other species. As you know, there is no significant new information presented in the RA. After discussing the document internally and with other biologists from several jurisdictions (including the Western Association of Fish and Wildlife Agency Wild Sheep Work Group - WSWG), we will continue to focus and enhance our evaluation of disease risk from species other than llamas or related camelids. There is not enough information presented in this report or other current publications to warrant spending additional resources on this issue. Also, we understand that the WSWG pulled the RA report from their website partially due to some concerns about the report itself. DFG currently has no plans to change or focus our disease surveillance efforts related to camelids.

We recognize that many different animals, both wild and domestic, can be potential vectors or sources for disease in Alaska's wildlife. DFG will continue to monitor and evaluate the state's wildlife populations for risk of disease transmission from other animals (wild and domestic), endemic sources in the environment, and within the wildlife population itself.

Thank you for writing us in regards to your concerns over the report from British Columbia. It is always good to hear from others that are affected by what we do as we managers of Alaska's wildlife. Good luck to you and your organization in the future.

Sincerely,

FOR BRUCE DALE

Bruce Dale
Director

April 9, 2012
Alaska Department of Fish and Game
Attn: Craig Fleener, Deputy Commissioner
333 Raspberry Rd.
Anchorage AK 99518

My name is Murray E. Fowler, DVM. A major part of my career was devoted to dealing with the medical conditions of zoo and wild animals. When llamas became an industry in the United States, I became associated with the industry. I studied the existing literature of camelid diseases and became conversant with their clinical problems by dealing with then in a teaching hospital. I was the section head of Zoological Medicine which cared for camelids and other zoo and wild animals.

I was intimately involved in some of the original research that was conducted on these animals in the United States. I also traveled to Peru, Bolivia and Chile and have examined thousands of llamas and alpacas destined for importation into the United States and Canada. I have worked with government officials and diagnostic laboratories to try to determine what infectious and parasitic diseases to which llamas and alpacas are susceptible or resistant to.

I am the author or coauthor of 85+ publications on camelid medicine, several of which dealt with infectious and or parasitic diseases. I am the author of a definitive textbook, in English, on the Medicine and Surgery of South American Camelids, now in its 3rd edition and published by Wiley-Blackwell, Ames, Iowa, 2010. As a result of my studies and experience I have kept current on the world scientific literature on these unique animals.

May I share with you some information that may be pertinent to the risk of diseases from llamas to free-ranging wildlife? It is important to understand that camelids are not ruminants (not taxonomically, anatomically, behaviorally or physiologically), and should not be categorized with cattle, sheep, goats or cervids. They may share some of the same gastrointestinal parasites that are common to many artiodactylids, but they have their own unique lice and coccidia.

I have read two publications that have come to my attention.
1. Examining therisk of disease transmission between wild Dall's sheep and mountain goats and introduced domestic sheep, goats and llamas in the Northwest territories, by Elena Garde, et al.
2. Communicable disease risks to wildlife from camelids in British Columbia by Helen Schwantje and Craig Stevens.

Both of these publications contain a wealth of information, however, there are some errors of interpretation that I take exception to. There has never been a documented case of South American Camelids (SAC) being responsible for disease transmission to cattle, sheep, goats or cervids. It is true that they acquire general infectious diseases that are common to most domestic animals, but SACs are not a reservoir for any infectious disease that may occur in cattle, sheep, goats or cervids.

I Applaud the efforts to require health checks and parasite control, but I see no justification for cart blanche exclusion of llamas from wilderness areas. I would be happy to speak to anyone about the statements that I have made.

Sincerely,
Murray E. Fowler
Murray E. Fowler, DVM
Professor Emeritus of Zoological medicine

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