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Ouray County Board of Commissioners
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December 31, 2021

Re: Domestic Sheep Grazing - DOI-BLM-CO-S060-2014-0001-EIS

Dear Commissioners:

The Colorado Wool Growers Association is extremely concerned that Ouray County is urging the BLM to restrict domestic sheep grazing in Colorado due to the presence of bighorn sheep.

The CWGA remains committed to management practices that minimize potential direct contact between bighorns and domestic sheep.

Listed below are some additional points to consider:

Did you do any research with the Colorado Department of Agriculture and the State Veterinarian before sending your letter to the BLM, or reach out to the Colorado Wool Growers Association for any information?

Bighorn sheep are a huntable species in Colorado. That means the overall population is robust enough that Colorado Parks & Wildlife (CPW) annually issues hunting tags.

The Rocky Mountain Bighorn Sheep Society actively works to “protect” bighorns so hunters can kill them.

Bighorn sheep are vulnerable to stress caused by a variety of factors (tourism, recreation, habitat fragmentation, inbreeding, weather, nutrition, predation, population density within the herd). Respiratory disease and low lamb recruitment is often induced by stress. It's lazy science to attribute respiratory disease and low lamb recruitment in bighorns solely to domestic sheep. There are many other factors that significantly influence respiratory disease epizootics and bighorn sheep herd health.

Mycoplasma ovipneumoniae (“M.ovi”) is endemic to Colorado bighorn herds and all herds in Colorado already have it. Current research is showing the *mycoplasma*

ovipneumoniae (*M ovi*) is endemic in bighorn herds across the west, with or without the presence of domestic sheep.

The origin of *M ovi* is unknown, although the popular belief is that it always comes from domestic sheep, based upon a various “pen studies” (forced enclosure). Forcing bighorns and domestic sheep together in an enclosure is a highly stressful event for bighorns and not at all indicative of open range grazing.

Domestic sheep do not “transmit disease.” The degree of risk of potential pathogen transmission, from domestic sheep to bighorn sheep, in open range grazing conditions, is unknown. If pathogens are transferred between species, it does not automatically equate to the development of disease or death. Direct contact is needed to transfer pathogens (dosage and duration unknown). Pathogen transmission does not occur just because bighorns and domestics may be in proximity of each other.

The *Mycoplasmas: Molecular biology, Pathogenicity, and Strategies for Control* textbook states: “assumptions about restricted host range of mycoplasmas, based on the host from which they were first or frequently isolated, are usually made in the context of nearly complete absence of representative sampling of the vast majority of potential hosts.”

Livestock and wildlife have commingled on our western rangelands for more than a century. The notion that domestic sheep introduced a novel pathogen to bighorns when the West was settled may seem likely but is purely speculation (bison also commingled on the open range with numbers estimated to be in the millions in the 1800s). Perhaps another contributing factor is that wildlife populations (with or without contact with livestock) serve as a reservoir for the very pathogen(s) that cause disease and spread infection as well. Common sense tells even the layman, yes, although many self-proclaimed bighorn “experts” are reluctant to agree that anything besides domestic sheep and goats might impact bighorn herd health.

On June 15th, 2018 the State of Alaska Department of Game & Fish issued a press release stating “*Mycoplasma ovipneumoniae* (“*M.ovi*”) is a respiratory bacterium that can cause disease in susceptible hosts. Previously thought to be host-restricted to sheep and goat species, scientists have identified *M. ovi* for the first time in healthy moose and caribou in Alaska; a bison in Montana; mule deer in New Mexico, and diseased white-tailed deer from the upper Midwest.”

M ovi has now been detected in bison, mule deer, whitetail deer, caribou, and moose. For decades, the commonly held belief by lazy scientists was that *M ovi* only came from domestic sheep. If you have your blinders on any don’t consider other possibilities it doesn’t threaten your agenda; and it also doesn’t take the comprehensive approach needed to understand bighorn herd health, and epizootics in other wildlife species.

According to the Modeling Risk of Pneumonia Epizootics in Bighorn Sheep (Journal of Wildlife Management - Sells - 2015), “*Risk was not associated with number of federal sheep and goat allotments, proximity to nearest herds of bighorn sheep, ratio of rams*

to ewes, percentage of average winter precipitation, or whether herds were of native versus mixed or reintroduced origin. We conclude that factors associated with risk of pneumonia epizootics are complex and may not always be from the most obvious source.”

“Elucidating the emergence of *Mycoplasma ovipneumoniae*-associated respiratory disease in ruminants requires identification of the pathogen host range. This bacterium was thought to be host restricted to subfamily Caprinae, but we describe its identification in healthy moose, caribou, and mule deer and diseased mule and white-tailed deer, all species in subfamily Capreolinae.” (Emerging Infectious Diseases • www.cdc.gov/eid • Vol. 24, No. 12, December 2018)

It’s disappointing to see the BLM and CPW reference the USFS’s significantly flawed Risk of Contact model as a means of decision making. The Risk of Contact model (“dirt model”) only predicts estimated rates of bighorn sheep contacting an allotment (stepping into a grazing allotment not direct contact with domestic sheep), and does not predict the viability of bighorn sheep populations.

The U.S. Forest Service Risk of Contact model is grossly inaccurate at best, considering “contact” when a bighorn sheep steps into a grazing allotment irrespective if domestic sheep are even present in the grazing allotment (grazing allotments are only utilized for a short grazing season every year, not year around).

The mathematical modeling studies utilized by the USDA Forest Service’s Bighorn Sheep Working Group to determine potential contact are fundamentally flawed. The obvious problem with this method is in how and what parameters are chosen. Input of inaccurate data will result in the output of inaccurate answers. The modeling method potentially allows the operator to tailor the data in order to fit a preordained conclusion. This same modeling method has been shown to be erroneous in comparisons of simulations to real outcomes. Such issues cause the process to fail the standards of quality, integrity, and utility of the Data Quality Act (“DQA”) and the best available science standards of the Environmental Species Act (“ESA”). They also run afoul of Presidential orders on scientific integrity and transparency.

The Forest Service is finally acknowledging the shortcomings of the ROC model; yet the BLM continues to cut and paste outdated information into their documents and CPW biologists continue to reference it. (The recent GMUG Forest Plan does not use the ROC model in determine risk.)

The BLM’s reliance upon *MS-1730 Management of Domestic Sheep and Goats to Sustain Wild Sheep* is beyond the agency’s scope as designated by Congress. Nowhere in the document’s referenced statutes is the authority to manage for spatial or temporal separation between domestic sheep and wild sheep. The agency’s prescribed management practices cannot exceed the scope authorized by Congress under relevant statute. Therefore, it is improper for the agency to cite, reference or apply MS-1730.

The BLM is not mandated to “guarantee” zero risk to bighorns. Bighorns can get *M. ovi* and other potentially deadly pathogens from other bighorns. Demanding a “guarantee

total temporal and spatial separation” is a precipitous slope upon which to stand, and lays the groundwork for other emotional charged demands.

Wolves come to mind next. Will Ouray County commissioners be demanding the removal of cattle from grazing allotments to “guarantee total temporal and spatial separation” from wolves?

Unfortunately, you cannot trust iNaturalist/citizen science when people have an agenda (in this case, to remove domestic sheep grazing from the range). Terry Myers with the Rocky Mountain Bighorn Sheep Society adeptly (or ineptly depending on how you want to look at it) demonstrates why citizen science should be viewed with a great deal of skepticism.

In 2018, the CWGA began raising concerns about using citizen science, noting that it can be a very fraudulent process manipulated by anti-grazing activists.

We only needed to wait until the next grazing season to have our fears confirmed. During the July 2019 CWGA convention, the U.S. Forest Service received a report from Terry Meyers (Rocky Mountain Bighorn Sheep Society) that there was a co-mingling incident between bighorn and domestic sheep on the Deer Park grazing allotment in the San Juan mountains. Meyers gave the USFS a detailed description of where the alleged incident occurred. Both Brian Ferebee (then Regional Forester) and Jacqueline Buchanan (Deputy Regional Forester) were sitting in our conference room, when Ms. Buchanan received the report. She immediately asked me about the situation. The alleged incident that Meyers was so specific about, occurred on Ernie Etchart’s grazing allotment. As luck would have it, Mr. Etchart was also at our meeting that day. He explained to Ferebee and Buchanan that because the recent snow slides had taken out the trail to the grazing allotment, he didn’t even have any sheep on that allotment because the trail was inaccessible. Because of predators and extreme weather, domestic sheep would not survive a winter alone in the San Juan Mountains; so the suggestion that the sheep were left from the previous grazing season doesn’t ring true either.

When the USFS presented Meyers with the facts, he quickly recanted the statements in his report, and said that he was mistaken in the location (which was rather interesting given the specificity of his original statement).

Wildlife biologists are not epidemiologists. Multi-disciplinary resources available within the USDA include the Agricultural Research Service, Wildlife Services, Center for Animal Welfare, and the National Animal Health Monitoring System. The American Sheep Industry Association, State Ag Departments, and the livestock industry also have decades of experience working on animal health issues, yet these resources continue to be ignored by most of the vocal groups in the bighorn fray.

Until we have a much better understanding of dosage requirements, disease thresholds, and all factors that impact the overall herd health of bighorn sheep, we cannot accurately assess the role domestic sheep might play in bighorn herd health.

Bighorn sheep are the Trojan Horse of the anti-grazing activists. Using bighorns to leverage livestock producers off their grazing permits is a scorched earth approach to eliminating domestic sheep grazing. It is short-sighted and wrong. It's interesting to note that when a bighorn die-off can't be pinned to domestic sheep, bighorn activists start casting a broader net to implicate cattle instead. Will cattle be the next species the Ouray county commissioners has in the crosshairs?

Where will it end? Driving ranchers off the landscape erodes America's safe protein and fiber production base; eliminates open space and wildlife habitat as farms and ranches are sold for development; and eliminates livestock as an eco-friendly forage management tool that can reduce invasive weeds and fuel loads. Decreasing fuels loads through grazing reduces the intensity and duration of wildfires; not to mention the loss of our rich farming and ranching heritage in the state of Colorado.

While we value our bighorns in the state, not every acre of BLM/USFS should be designated occupied or potential bighorn habitat; and not all areas of potential overlap between bighorn and domestic sheep should be considered high risk. Statewide, the overlap of occupied bighorn sheep habitat and active grazing allotments is small.

A closing statement about peanuts seems out of place, but.....In January 2017 the U.S. Department of Health and Human Services, National Institute of Allergy and Infectious Diseases changed its *Guidelines for the Prevention of Peanut Allergy in the United States*. (<https://www.niaid.nih.gov/sites/default/files/peanut-allergy-prevention-guidelines-parent-summary.pdf>) The new addendum states "Recent scientific research has shown that peanut allergy can be prevented by introducing peanut containing foods into the diet early in life. Researchers conducted a clinical trial called Learning Early About Peanut Allergy (LEAP) with more than 600 infants considered to be at high risk of developing peanut allergy because they had severe eczema, egg allergy, or both." In a nutshell (my words, not theirs) the guidelines state, "Based on the strength of the LEAP findings, the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, worked with 25 professional organizations, federal agencies, and patient advocacy groups to develop clinical practice guidelines to address the prevention of peanut allergy. A panel of experts developed the Addendum Guidelines for the Prevention of Peanut Allergy based on the LEAP findings and other recent scientific research." The new guidelines establish procedures for working with your healthcare provider to expose infants to peanut-containing foods to help prevent the development of a potentially deadly peanut allergy later in life. Doctors are finally realizing that you cannot raise children in a protective bubble, so developing an exposure strategy early on is important.

My immediate thought when I read this information was that the bighorn sheep folks should stop hiding behind the shield of lazy science and consider this line of reasoning. My second thought was this is a great example of conventional wisdom being wrong and adjusting your sails accordingly for a better outcome.

"Your assumptions are your windows on the world. Scrub them off every once in a while, or the light won't come in." [Isaac Asimov]

One of my CWGA members reminded me that “when your only tool is a hammer, every problem looks like a nail.” Let’s use emerging science as a new tool in the toolbox instead of continuing to rely upon speculative outdated studies.

Respectfully,

Bonnie Brown

Executive Director

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