

Appendix D

Report from the Meeting on State-wide Issues Regarding Bighorn/Domestic Sheep Interaction August 18, 2000, at The Outrider Restaurant in Laramie, WY

Participants

Bryce Reece, Wy. Woolgrowers (WWGA)
Doug McWhirter, Wy Game & Fish Dept. (WGFD)
Walt Cook, WGFD
Ron Micheli, Wy. Dept of Agriculture (WDA)
Jim Collins, Wy. Chapter, Foundation for No. Amer. Wild Sheep (FNAWS)
Paud Karres, FNAWS
Kevin Hurlev, WGFD
Bill Wichers, WGFD
Tom Thorne, WGFD
Marty Griffith, Bureau of Land Management
Terry Kreeger, WGFD
Marv Thoman, rancher
Frank Philp, rancher
Ken Hamilton, Wy. Farm Bureau Federation
Cat Urbigkit,- rancher/reporter
Pati Smith, Sen. Thomas' office
Bonnie Cannon, Rep. Cabin's office
Jim Magagna, Wy Stockgrowers (WSGA)

Facilitator. Bob Budd, The Nature Conservancy-Red Canyon Ranch (TNC-RCR)
Recorder: Carol Kruse, Wy. Office of Federal Land Policy (OFLP)

Corrections to Report of 6/29/00 meeting:

Under NEW BUSINESS-Boxelder Canyon Reintroduction Effort, pg 4, 7th bullet should read:

-1/2 weeks later, some landowners contacted the WGFD with concerns about the reintroduction.

There was also misinformation and poor communication surrounding the reintroduction effort.

Sybille Canyon Tour:

The tour of the WGFD facility in Sybille Canyon yesterday was excellent. It was hosted by Terry Kreeger and his staff.

OFLP provided complimentary copies of the Endangered Species Act and of the S Criteria for Determination of Endangered and Threatened Species (considered when

making listing, downlisting, or delisting decisions). More copies will be made available at the December meeting for those not able to attend the August meeting.

Committee Reports:

Disease and Stresses and Research: Review of Existing and Future Agenda,
Tom Thorne and Bryce Reece

Committee minutes are attached Full group discussion of the committee report is in italics.

The two committees agreed to combine into the Disease, Stresses, and Research Committee with Tom and Bryce as co-chairs. The group had a lengthy discussion about timeframes/timelines. At this point in time they don't feel they have one, and they hope the subcommittees and members will continue to meet to keep the dialogue going. The full group is still comfortable with developing recommendations as the group progresses, and recognizes there may be changes to recommendations as science changes.

TOM MCDONNELL SUGGESTED THAT WYOMING BANK *Ppasteurella* Isolets (Bacteria) for future research. The Wyoming State Veterinary Lab in Laramie is already doing so.

DOUG MCWHIRTER IDENTIFIED THE NEED FOR A PROTOCOL FOR SAMPLING TRAPPED SHEEP FOR ARRAY OF DISEASES, NOT JUST PASTEURELLA. A subgroup to develop a draft sampling protocol was up at the last North American Wild Sheep and Goat meeting. The draft protocol will be circulated wildlife and livestock interaction groups in various states and provinces. This subcommittee will that draft protocol as a starting point for developing a Wyoming protocol. The full group noted that this draft protocol should be reviewed by the domestic sheep industry, as well.

The committee reviewed their Terms of Agreement and Recommendations developed at an earlier committee meeting, and made some modifications for presentation to the whole group. Further discussion of those two items by the whole group was lengthy and varied. (See attached final versions those three documents.) It was agreed that there should be two documents from today's meeting...the report of the meeting itself, and a roadmap of what we agree to. Those should be sent with a cover letter to the appropriate party (i.e. Senator Thomas for funding support, the FS or BLM for management recommendations, etc.). The roadmap should also be sent to the Woolgrower and Stockgrower Boards of Directors for review and comment.

There was considerable discussion regarding allotment status
Closure = legally non-accessible
Vacant = accessible, but maybe not economically viable

and on the differences between how the Bureau of Land Management (BLM) and Forest Service (FS) handle closed/vacant allotments and AUMs.

BLM- non-use can only be taken for 3 years. An allotment under non-use can be used by someone else, through a complicated process. BLM does offer longer than 3 year non-use for "resource conservation. "

FS - tends to absorb vacated AUMs/allotments into existing permits rather than keep them (is discrete permits; for example, two allotments of 500AUMs each each can be combined, and the combined allotment given to one of the ranchers with 800 AUMs.

While one rancher has gained a larger allotment and 300 AUMs, the industry has lost one allotment and 300 AUMs. FS has nothing comparable to "resource conservation " non-use.

It was noted that Congress' intent was to protect AUMs and the industry. Everyone agreed we were singing about three different things: AUMs, allotments, and areas for grazing.

It was proposed that there be a mandated review, say every 10 years, to determine if a closed allotment still needs to be closed... ie, there should be a term set on closing an allotment, just as there is on a permit. However, making closed allotments subject to periodic review may preclude FNAWS investments. Some argued that closing an allotment converts it from multiple use to a single use (wildlife).

The draft Point of Agreement stating that "There should be no net loss of "usable "federal zing AUMs; the inseparable relationship between allotments and base property, should be appreciated and respected. In the interest of industry revitalization, etc., this group should encourage any status rather than closure since technical/.scientific advances may make some allotments economically viable in the future" was removed from the list of Agreements and assigned to the Economic viability, Loss of Allotments and Distrust of Agencies Committee for further discussion and specific recommendations. That committee needs to work with specific circumstances surrounding ant/closed allotments, and maybe can make recommendations specific to those circumstances. That committee needs to provide those proposed recommendations and guidelines for the whole group to consider. The target of those recommendations and guidelines is no net loss of AUM/allotment availability.

What's important is to convey that message to the federal land managers, to focus on that message. For example, there is a number of available AUMs and a (generally lesser) number of active Ms: some of those available AUMs could be lost as a result of inactivity. We could recommend that available AUMs not being used actively be used to offset losses, so there is no net loss of available Ms to the industry. That committee should work with the BLM state office and with Stan Sylva for discussions.

Relative to that discussion, it was emphasized that the recommendations of the Working Group would be how allotments ought to be managed. The group may need to ask for changes in federal regulations governing allotment management to achieve those recommended management policies.

Discussion then shifted to the proposed FS and BLM Bighorn sheep recommendations (copies will be available at the December meeting). The FS recommendations are awaiting the Chief's signature, BLM's are finalized. The FS did not copy all of the BLM recommendations because BLM's were aimed largely at desert Bighorn sheep management.

The group expressed concern that stress is not mentioned in either agency's recommendations. Many stressors can be mitigated or managed, and this group needs to address that. We need to think about doing things like prescribed burns and selective timbering to open up Bighorn sheep escape habitat, for example (so they can get away from people, etc.).

The whole group should recommend specific guidelines regarding the priority of Bighorn sheep or domestic sheep. Those may differ for core native herds and reintroduced, experimental populations. Producers may be willing to do some things for core native herds that they're not willing to do for reintroduced, experimental populations: the guidelines need to differentiate between those.

Tom reported that the Wildlife/Livestock Disease Research Cooperative MOU is drafted, and infrastructure is in place at the University of Wyoming and Sybille. The WGFD, UW, WDA, and the Livestock Board are all engaged. There needs to be a federal representative to this Cooperative because federal funding for this needs to be a line item in the federal budget (rather than the cooperative relying on grants). Tom Thorne, Ron Micheli, Bob Budd, and Bill Gern (VP-Research UW) will work on drafting federal legislation or whatever is needed to get this line item into the appropriate federal budget. As part of that effort, they should visit with the Wyoming Congressional delegation and their staff, with care paid that federal funding goes where we need it, which is here in Wyoming.

In addition, there is a need to increase State legislative funding for the State Veterinary Lab at The UW block-grant funding hampers UW money from going to the State Vet Lab - should an increase be sought through WDA?

Predator research discussions centered on the question, 'why put money into research rather than into control activities?' It was agreed that many interactions are unknowns, while it was acknowledged that monitoring is a form of research.

Economic Viability, Loss of Allotments, and Distrust of Agencies Committee

Ron Michell, chair

This committee took no action at their meeting, but discussed several issues. Again, full group discussion is in italics.

This committee's four Operating Principles Regarding Economic Viability/Loss of Allotments and the six Principles of Communication (to offset distrust of agencies) that were submitted at the 6/29/00 general meeting stand as submitted (see attached).

The committee visited with BLM regarding vacant allotments, and was told that BLM doesn't really have any ... they reallocate vacant allotments right away.

Ron asked what the full group wants this committee to consider relative to economic viability -individual producers' viability? Industry viability? Bighorn sheep opportunities? The whole group need we largely want to protect the viability of the domestic sheep industry and of Bighorn sheep. It was also recognized that economic viability, is being folded into every recommendation front both committees, so this committee can drop economic viability as a discrete topic, and it will be addressed each issue as the whole group moves ahead.

The committee noted that AUMs have value because they generate economic activity, and agreed that decision-makers need to consider the value of agriculture and the costs of tourism... ie, tourists like it here so much that they buy a 5-10 acre plot and move here. We're paying the cost to agriculture (and related wildlife values) through habitat fragmentation.

The committee discussed the Endangered Species Act, and the impacts of that on sheep producers. In particular there were concerns about Bighorn reintroductions using source populations it may be perceived as being listed as threatened or endangered, and the implications of that on the reintroduced population and adjacent domestic sheep producers. WGFD personnel indicated that the Sierra Nevada California Bighorns were in the process of being separated taxonomically from the British-Columbia-derived California Bighorns (the Sierra Nevada population is listed as threatened, British-Columbia population is not). WGFD reintroduction sources are always British – Columbia-derived California Bighorns. It was agreed that this group needs assurances, which we can in turn give to others, that a non-listed, reintroduced population, should it decline, will not be considered listing. It was noted that getting Congressional, statutory assurance will be difficult because the environmental interest will likely object. It was noted that what State agencies (such as WGFD) say and assure is not necessarily the same things the federal agencies say and assure. The taxonomic classification isn't enough assurance because geographically-isolated populations of plentiful ties can be listed. It was agreed that threatened and endangered species possibilities are only part of the problem - another part is the complex of buffer zones, restrictions, and future potential.

New Business

RESEARCH AND VETERINARY TOOLS

Tom McDonnell reported that soon fecal samples will be able to be used to monitor general health of populations of domestic sheep. That tool could eventually be extended to Bighorn sheep populations.

The development of long-term antibiotic inoculations of domestic sheep to reduce the risk of transmission is probably not feasible. Research on that is of low priority.

The highest research priority is vaccination of Bighorn sheep with live vaccines which have been genetically modified to delete the toxin-producing gene in the lethal strains of Pasteurella. There is active research on this, and a pilot test in Colorado is promising. Sybille may be the site of a second test. This vaccination has been shown to transfer to herd-mates, to spread just as infections do ... as a result, we may see Bighorns 'self-vaccinating,' transmitting the genetically modified Pasteurella to the other. While that would overcome some logistic problems, there are caveats and concerns regarding continued low virility (ie, what is the probability of mutation to a once-again lethal bacteria). It should be noted that this vaccination does not eliminate Pasteurella, it only shifts the "resident" population of Pasteurella bacteria to a less-lethal type.

There are some good possibilities for oral delivery of the vaccine; blobul1etS work, too. Inhaled organisms can be applied by spraying.

Vaccination of domestic sheep with this non-lethal Pasteurella culture could be done so any transmission to Bighorn sheep will be of the non-lethal bacteria. Small gains in productivity for producers may offset the cost of the vaccine, no one knows for sure. FNAWS and others might be fling to cost-share the costs of vaccinating domestic sheep with this non-lethal strain, as well.

While the importance of stress is recognized, research into that is not a high priority because there isn't much that can be done about it.

Micronutrient deficiency research is being done, but it is not as high a priority as the vaccine research.

RESEARCH PAPER SYNTHESIS EFFORT

Terry Leeger is waiting for the 4th paper to be finished before beginning the synthesis work. Once he synthesizes the 4 papers, he'll send that to those four authors for review. After corrections, et c., the synthesized result will be sent to a wider set of peer reviewers. He's hoping to have the synthesis done in September, but his timeline is dependent on the fourth author finishing his paper. He's really pleased with the duality and quantity of information in the three papers he's reviewed.

PUBLIC PROCESS GUIDELINES

Due to electronics glitches, all of the committee established to develop these guidelines was not able to provide input into recommended guidelines. Two sets of guidelines were handed out -- one compiled by Betty Fear (chair) and Carol Kruse, another compiled by

WGFD (see attached). The two sets w were noted to be incompatible in several respects. The committee was directed to reconcile the two sets of guidelines and present a reconciled version at the next meeting.

WGFD'S BIGHORN REINTRODUCTION STRATEGY

When asked if WGFD is trying to reintroduce populations of Bighorn sheep into southeastern Wyoming (Sweetwater Rocks, Boxelder Canyon) because it is anticipated that grizzlies and wolves will eliminate Bighorn populations in the northwestern corner of the State, WGFD replied "No." They went on to explain that grizzly predation is not a problem, wolf predation is to a limited extent, but that mountain lions represent the greatest natural predation threat for Bighorns. WGFD does expect some mortality when winter range near escape habitat is reduced, but this predation is considered an indirect loss. They also noted that it's nearly impossible to verify predation losses.

FIRE MANAGEMENT/TIMBER MANAGEMENT LETTER TO THE FEDERAL AGENCIES

Bob Budd reported he is working on it.

MAPS

WGFD was asked to supply additional GIS maps overlaying Bighorn sheep HMA boundaries and occupied and seasonal habitat with domestic sheep allotments, distinguishing vacant, closed, and active allotments. WGFD was asked to get lists and GIS data files from BLM (Marty Griffith) and FS (Stan Sylva) showing all the domestic sheep allotments and their status. BLM was also asked to in lode and note sheep allotments that are currently permitted for cattle.

NEXT MEETING

Set from 10am until 3 or 4pm on December 14 in Rock Springs, as the FNAWS annual meeting in Rock Springs December 15-16. Tom and Bryce set their committee meeting for 10am to 4pm on December 13 in Rock Springs.

Pati Smith arranged for meetings both days to be held at the Rock Springs Holiday Inn.

AGENDA ITEMS FOR 12/14/00 MEETING:

Committee reports:

Economic Viability, Loss of Allotments, and Distrust of of Agencies committee,
Including draft recommendations regarding vacant/closed allotments

Disease, Stress, and Research committee

Draft (reconciled) public process recommendations for Bighorn sheep reintroductions

(Betty Fear, Carol Kruse, Bryce Reece, Ron Micheli, Kevin IliirleV, Jeff Reynolds,
Torn Ryder, WyFNAWS)

Draft report of recommendations to date from this group to State/federal land managers
(the roadmap)

(Bob Budd, Carol Kruse)

Display of GIS maps:

Bighorn-occupied habitat, not just HMA boundaries; also overlay this with the
allotment information (vacant, closed, active). Can we color-code seasonal
Bighorn habitat on there, too?

Bighorn core herd management areas overlaid with active allotments
Introduced Bighorn herd management areas overlaid with active allotments

All vacant allotments in the State (Dan Stroud)

Distribute and discuss written guidelines on how HMA boundaries are established, and
how WGFD determines overlap between Bighorn and domestic sheep (how many
Bighorns sighted, where in relation to domestic sheep, frequency of sightings, how long
ago, etc.)

(WGFD - Kevin Hurley?)

Fire management/timber management letter for agencies

(Bob Bud(l))

Update on Wildlife/Livestock Disease Research Cooperative, including efforts to get
funding into the federal budget

(Tom Thorne, Brvce Reece, Ron Micheli)

Update on Research and Veterinary Tools

(Tom McDonnell)

Update on Research Report Synthesis

(Terry Kreeger)

From: Tom Thorne
To: Sheep
Subject: August 17 meeting

As you recall at the June 29, 2000, meeting of the Disease Committee of the Bighorn Sheep/Domestic Sheep Interaction Working Group, it was agreed the next meeting would be at the Sybille Wildlife Research and Conservation Education Center on August 17, 2000. The meeting will start with a tour of the unit. The entire Interaction Working Group will meet in Laramie on August 18.

Sybille is located on the south side of Highway 34 about half-way between Laramie and Wheatland; driving time from Laramie is about 50 minutes. The tour will start at 8:30 a.m. and take 1 to 2 hours, depending on the amount of discussion. Anyone with an interest is welcome to participate in the tour.

The meeting of the Disease committee will start immediately after the tour, about 10 a.m. I talked to Bryce Reece, chair of the Research Committee, last week, and we agreed to invite that committee to join in the tour and participate in the Disease Committee meeting because there is considerable overlap in interests and topics to discuss. I have included Research Committee members who Bryce has e-mail addresses for in this message in order to invite them to the Sybille meeting. I'll ask Bryce to also help contact his committee members. Thanks, Bryce!

Sybille will provide lunches catered by Safeway Grocery deli in Laramie. It would be very helpful if you could confirm with me that you are attending so we will know how many lunches to order. If enough people express an interest, I will provide refreshments after the meeting.

The meeting of the entire interaction Working Group will be in Laramie August 18. Carol Kruse will be contacting you with the specific location and time.

Before our meeting, please review the three attachments to this message. The first is the minutes of our June 29 meeting. Walt Cook did such a good job, I am asking him to take notes and participate in the meeting at Sybille.

The second attachment is the Terms of Agreement reached by the Disease Committee. As suggested at the last meeting, I have rearranged them into a more-or-less logical order, but it is not a prioritized order. I added a couple of new TOA's we agreed on in June. Because they have already been discussed one or more times, the TOA's should not require very much more discussion. But, please look at them and be sure you are comfortable with them. The 14th and 15th TOA's at id 16th and 17th TOA's seem redundant to me. Consider whether we could drop the 15th and 17th TOA's. As instructed at the last meeting, I am forwarding the TOA's to Bob Budd and Carol Kruse so they can compile TOA's from all the committees.

The third attachment is my compilation of preliminary recommendations of the Disease Committee based on Walt's and my notes. They will serve as the basis for most of our discussion on the 17th. The recommendations are divided into two groups: Recommendations Agreed On that were discussed and, I think, agreed on by our committee in June and Recommendations to Decrease Disease Risk Proposed. But Not Discussed or Agreed on, which are based on Doug Mcwhirter's presentation. If we have time, I would also like to begin discussion on: 1) options and techniques used by domestic sheep and cattle producers to prevent or reduce the risk of Pasteurella-induced pneumonia; 2) veterinary preventive and intervention methods that might be used on bighorn sheep; and 3) application of predator control. All these topics entail discussion of research.

I'm looking forward to seeing each of you on the 17th, to an informative tour of Sybille, and to a productive meeting.

Tom

TERMS of AGREEMENT

Disease, Stress, and Research Committee

- The sheep industry is important to Wyoming and should be protected; this includes protection and stability of grazing allotments and management changes only on a willing permittee basis, not under a sense of urgency or duress.
- Bighorn sheep are important to Wyoming and should be protected and enhanced in terms of numbers, health, and distribution.
- Diseases may be interchanged between domestic and bighorn sheep; in Wyoming *Pasteurella* spp.-induced pneumonia is the most important.
- Pasteurellosis in sheep is a very complex issue that needs better understanding by all concerned individuals, agencies, and organizations.
- A variety of stressors play important roles in inducing pasteurellosis in sheep.
- Hybridization between Bighorn and domestic sheep should be discouraged.
- There is a need to better define the role of predation in Bighorn sheep dynamics.
- Zero risk of disease is unattainable, but management can be used to reduce risk and stress.
- Core native Bighorn herds are those populations that have never been extirpated and repopulated; this includes the Targhee, the entire Absaroka Range (five herds), the Whiskey Basin herd, and the Jackson herd.
- There is a need to develop Wyoming-based, multi-disciplined research and solutions. These could also serve as models for other states.
- Research conducted in Wyoming is preferable, but quality, balanced research conducted, and solutions developed, elsewhere should be recognized and used, where applicable.
- Use balanced scientific information
- Use adaptive management to resolve problems.
- There is a need for open, non-inflammatory communication. There is a risk of disease transmission, but rhetorical dialogue and interchange among all parties on degrees of risks is not beneficial or desirable.

- Existing and/or potential conflicts between domestic and both core native and transplanted Bighorn sheep should not be used as surrogate issues to force or effect resource management decisions; the retirement, reduction, or removal of grazing allotments and management changes should be only on a willing permittee basis, not under a sense of urgency or duress.

RECOMMENDATIONS

Disease, Stress, and Research Committee

- All parties to the Wyoming Bighorn/Domestic Sheep Interaction Working Group recognize that:
 - o There are some disease agents that occur in both domestic sheep and bighorn sheep. There is evidence that if Bighorn and domestic sheep are in close contact, health problems and die-offs may occur. Some disease agents may be transmitted between both species;
 - o There are Bighorn sheep die-offs that occur with no apparent relationship to contact with domestic sheep;
 - o The above observations are both valid and not mutually exclusive;
 - o Bacterial pneumonias are not the only diseases of concern, although perhaps they (especially *Pasteurella* spp.) are the most catastrophic;
 - o The risks of disease transmission are often unknown; they may, however, be site-specific; and
 - o Reasonable efforts must be made by domestic sheep producers, permittees, and wildlife and land management agencies to minimize the risk of disease transmission, and to optimize preventive medical and management procedures to ensure healthy populations of Bighorn and domestic sheep.
- In recognition of the above factors, when recommendations of the Wyoming Bighorn/Domestic Sheep Interaction Working Group have been followed and/or a cooperative agreement has been reached by affected agencies, permittees, and landowners, participants will be held harmless in the event of disease impacting either Bighorn or domestic sheep. While this is more a social and professional clause than a legal one, all parties agree to publicly acknowledge what happened, but to not point fingers. Affected parties can decide to try again.
- Priority for protection of Bighorn sheep should be on native core populations.
- Removal of Bighorn sheep or domestic sheep from areas of current overlap should not be an immediate and unilateral objective. The use of separation as one management tool, if possible and desirable, should be achieved through negotiation between affected parties and willing permittee(s). This means that this group will not say that separation must be made immediately, or that it is the

only possible response. We recognize that separation and removal are not synonymous.

- Cooperative efforts should be undertaken to quickly notify the permittee or producer and the appropriate agency to remove any stray domestic or Bighorn sheep in areas that would allow contact between domestic and Bighorn sheep. Bighorn and domestic sheep strays should be removed with a common sense approach.
- The Wyoming Game & Fish Department will prepare a map showing distribution of occupied habitat for native core and reintroduced Bighorn sheep populations.
- The Wyoming Wildlife/Livestock, Disease Research Cooperative should be formally established and funded with the goal of becoming the pre-eminent entity of its kind, and all parties agree to work toward this goal.
- This group encourages the Animal Damage Management Board to solicit and consider predator research as it might relate to Bighorn sheep.

RECOMMENDATIONS to REDUCE DISEASE RISK

Disease, Stress, and Research Committee

- o Take advantage of natural barriers (geography, forests, etc.).
- o Modify or take advantage of grazing systems (seasonally or spatially) to increase zone of separation.
- o Remove Bighorn sheep and domestic sheep strays with a common sense approach.
- o Two-way notification of commingling should occur in a timely manner.
- o Convert all or portions of high-risk allotments to cattle on a willing permittee basis.
- o Shift domestic sheep use to another allotment on a willing permittee basis.
- o Negotiate domestic sheep permit waivers or buy-outs on a willing permittee basis.
- o Identify site-specific solutions for each Bighorn sheep herd in cooperation with willing permittees.
- o Use caution when filling vacant domestic sheep allotments.
- o Use caution when considering translocation of Bighorn sheep.
- o Maintain frequent and open communication between agencies, permittees, and producers.

OPERATING PRINCIPLES regarding ECONOMIC VIABILITY/LOSS of ALLOTMENTS

Economic Viability, Loss of Allotments, Distrust of Agencies Committee

- o We'll collectively work to maintain healthy Bighorn sheep herd
- o Bighorn/domestic. sheep interactions should not be used as a surrogate for removing domestic sheep from public lands, or other land use decisions
- o It is important that Bighorn sheep management decisions regarding closing and/or retiring sheep allotments be made only on a willing permittee basis
- o We'll collectively work to maintain the domestic sheep industry

COMMUNICATION PRINCIPLES

- o Economic Viability, Loss of Allotments, Distrust of Agencies Committee
- o We all commit to support each other's roles in Bighorn sheep management
- o We all agree to inform each other about Bighorn/domestic issues at the earliest possible opportunities
- o We all agree to work together to resolve conflicts
- o We all agree to stop misinformation as soon as we hear it y
- o We all commit to seeking common ground
- o We all commit to bringing everyone together to talk