



Whiskey Mountain Bighorn Sheep

**Draft Plan Presentation and
Discussion**

June 5 and 6, 2019

The Whiskey Mountain Bighorn Sheep Collaborative Process

- First Workshop Series: Discover **Issues**
- Sheep Summit: Explore the Science and perspectives of other experts.
- Second Workshop Series: Discover **Improvements or Actions**
- Third Workshop Series: Present and Discuss **Draft Plan**

Ultimate Objective of the Collaborative Learning Process:
Create a Management Plan as a tool for On-going Collaborative Process for the Whiskey Mountain Bighorn Sheep herd that is grounded in Adaptive Management.



Issues Identified

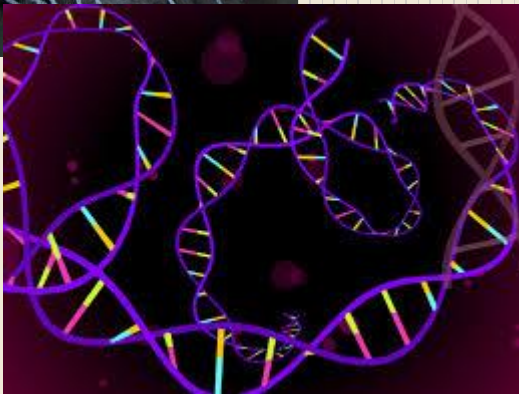
- Health/Disease
- Habitat/Nutrition
- Predatory Animals
- Disturbance/Access
- Population Management
- Research
- Funding
- Public Outreach and Communication

The University of Wyoming Lamb Survival Study



- It was recognized how important the results of this study are to best understand and manage this herd.
- Many of the “actions” identified in this plan reflect that and hinge on the study’s results.
- This plan is adaptive and will change as we learn more, hopefully soon.
- The research crews and WGFD are boots on the ground are having good success!

Health/Disease



- Need to **better understand** effects of pathogens.
- Need to ensure separation of bighorn sheep from potential sources of disease from other animals.
- Needs to be increased understanding the genetic status of the herd and the role of genetics in disease vulnerability.
- Need to improve habitats to increase BHS health.

Better understand effects of pathogens

- UW lamb survival – every sheep tested and monitored.
- Document detailing all known disease and parasite testing conducted in the WMBS herd.
- Veterinary Services continue to be involved in bighorn sheep disease research and testing
- Collect fecal samples to determine parasite larvae loads.

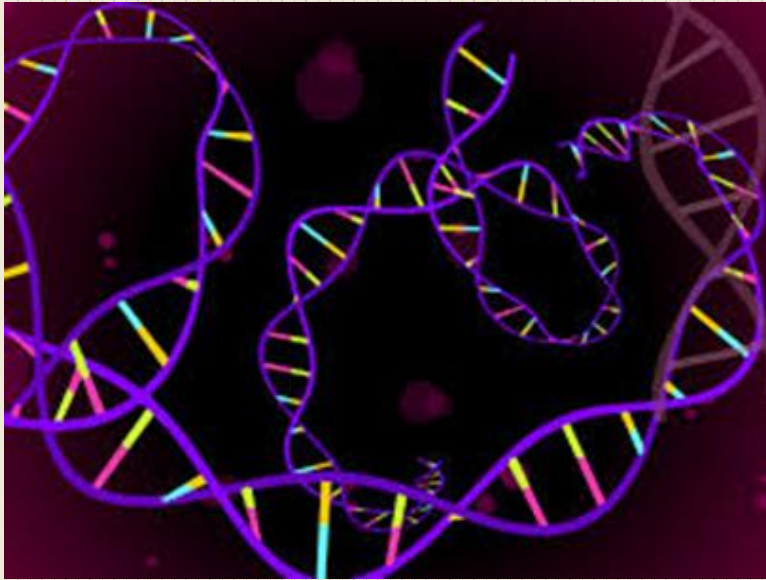


Separation from potential sources of disease



- Efficacy of targeted lethal removal of clinically ill bighorn sheep.
- Cooperate with other agencies and entities to help develop techniques to identify sinus tumors in the field.
- Coordinate with other agencies including the USFS, BLM, USFWS, and WRR to maintain separation of bighorn sheep and domestics sheep or goats.
- Evaluate removal of mountain goats found within the WMBS herd unit.

Genetics



- Consolidate genetic data and analysis currently available for the WMBS herd.
- Collect more genetic samples from sub-groups of sheep on the west slope of the Wind River Mountains.
- Evaluate using fecal material for genetic analysis.

Improve Habitats



- Coordinate with the USFS, BLM, and WRR to utilize management prescriptions (e.g. prescribed fire) to enhance bighorn sheep migration and other important habitats.
- Analyze nutrient content of forage available to sheep
- Assess the efficacy of continued herbicide and fertilizer applications to winter ranges.
- Assess mineral content in forage species to evaluate micro-nutrients and minerals such as selenium

Question Received

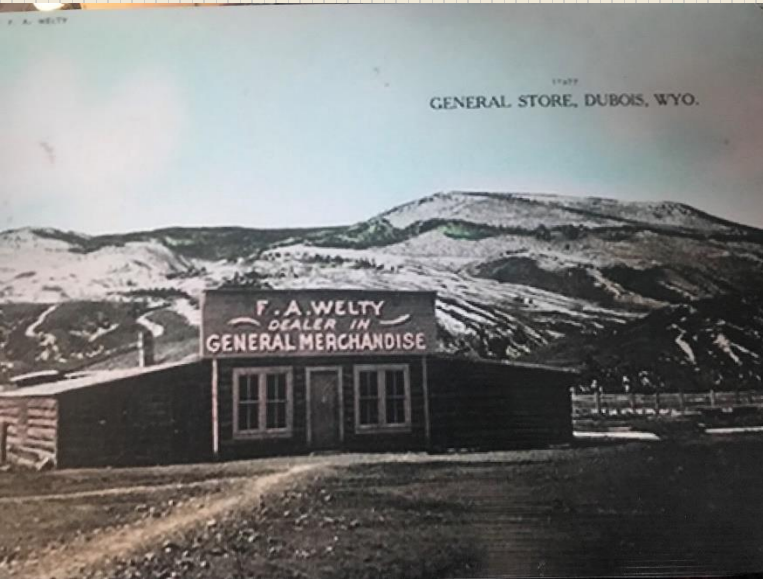
The Painted Hills Sheep appear to be healthy and productive — why is that? In comparison to the Whiskey Mountain Bighorn Sheep herd, are the genetics, management or other factors different?

Thoughts.....



© Stan Harter

Habitat/Nutrition



- Improve habitats and nutrition.
- Control invasive and noxious plants.
- Evaluate habitats on both sides of the Continental Divide.
- Minimize competition.
- Evaluate pollution and climatological change.

Improve Habitats and Nutrition

- Inventory important historic and current habitats. Develop a habitat enhancement plan.
- Coordinate with the USFS, BLM, and WRR to utilize management prescriptions (e.g. prescribed fire) to enhance bighorn sheep migration and other important habitats.
- Support USFS, BLM, and WRR to evaluate and conduct prescribed burns and manage wildfires to improve bighorn sheep habitat.
- Support the USFS to manage/enhance habitats within the Glacier addition of the Fitzpatrick Wilderness.
- Analyze nutrient content of forage available to sheep on summer range as part of the UW lamb survival study.
- Dependent on the results of the UW lamb survival study, WGFD may assess the value of mineral supplements in an experimental fashion.



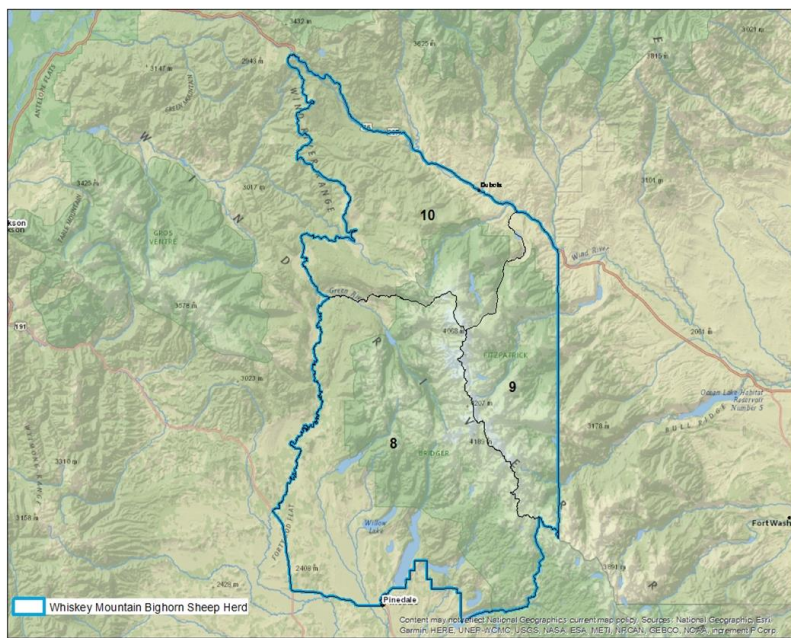
Control invasive and noxious plants



- Conduct an annual weed assessment on sheep winter range.
- Treat weed patches immediately in an attempt to arrest spread.
- Implement, as a standard on all habitat projects, measures to prohibit or eliminate invasive and noxious weeds.
- Support and implement new research and methods to reduce prevalence of cheatgrass in critical bighorn sheep habitat.
- Provide a method for citizens to report and map observed locations and species of invasive and noxious plants.

Evaluate habitats on both sides of the Continental Divide

- Support research to collar sheep, collect genetic samples, assess habitat use, migratory movements, and disease status of sheep that are year-round residents on the west side of the Continental Divide in the Wind River Mountains.



Minimize competition

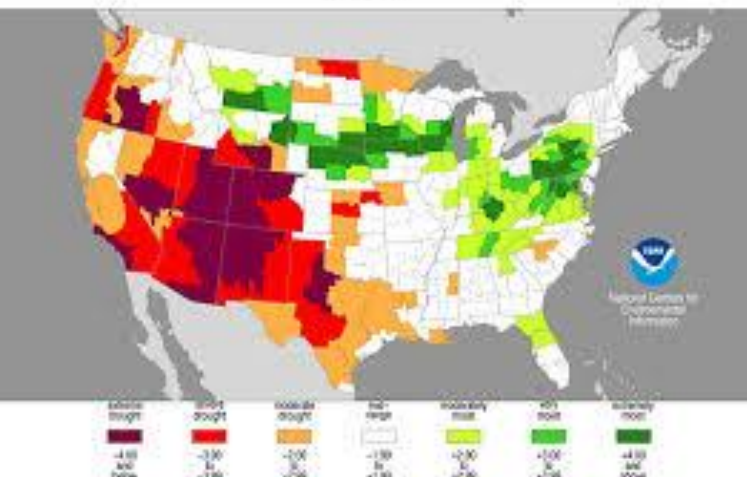


- Manage elk in Area 69 to objective.
- Monitor changes in elk distribution on winter ranges for both elk and sheep.
- Seek funding to evaluate summer spatial and temporal relationships between elk, sheep, and wolves.
- Continue to monitor forage utilization rates to ensure forage availability for sheep is maintained.

Evaluate pollution and climatological change



Palmer Drought Severity Index
August, 2018



- WGFD, USFWS, and USFS will compile existing data on water chemistry in streams and lakes.
- Evaluate the relationship between bighorn sheep body condition, lamb birth weights, and changes in precipitation.
- Explore the possibility of additional remote weather stations with USFS, UW, Central Wyoming College, BLM and WRR.

Thoughts.....



© Stan Harter

Predatory Animals



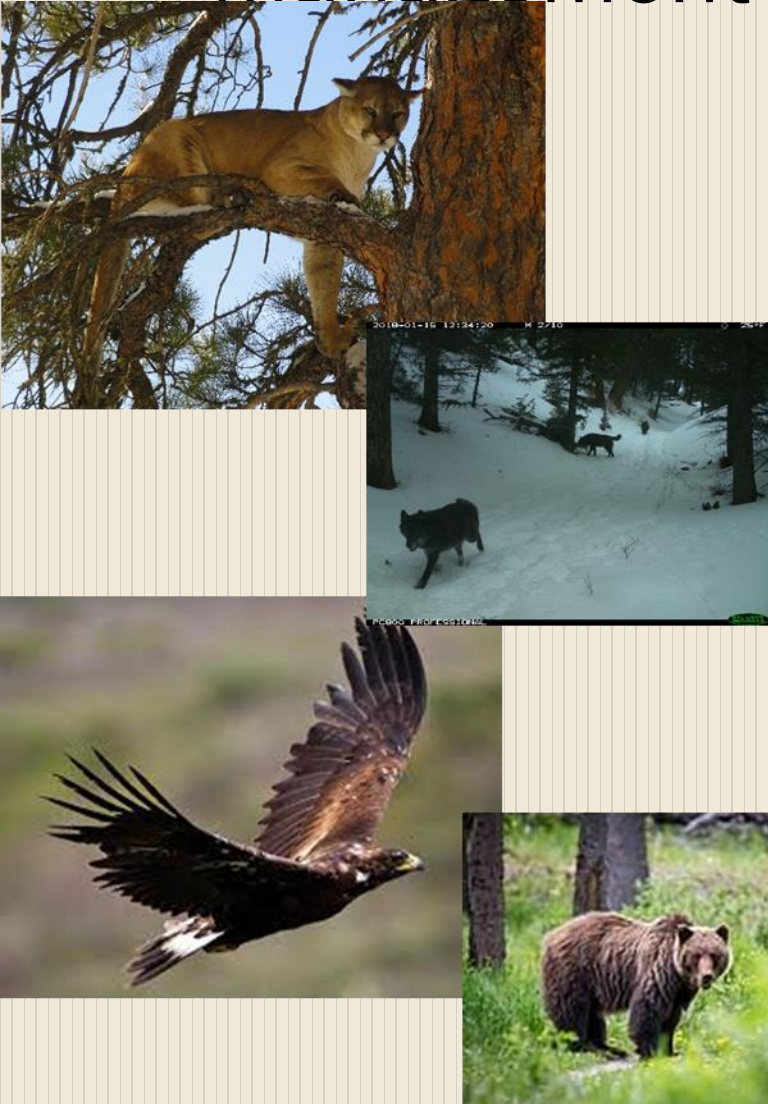
- Better understand interactions and impacts of predatory animals.
- Evaluate use of harvest and predator management.
- Provide feedback and be transparent regarding predators.

Better understand interactions and impacts of predatory animals



- Augment ongoing monitoring objectives for wolves in the area of influence, including potentially adding GPS collars on resident wolves.
- Analyze fine scale movement patterns between wolves and WMBS.
- Synthesize fine scale movement data, habitat/forage data and nutritional data in order to quantify indirect impacts of predatory animals.

Evaluate use of harvest and predator management



- Through ongoing research (UW lamb survival study), WGFD and researchers will further quantify the impacts of predators, specifically wolves, on the condition of WMBS and evaluate the range of management actions available for wolves and other predatory animals within WMBS range.
- Explore appropriate management actions for trophy game animals and predators that occur within the WMBS herd range.
- Evaluate the efficacy of targeted, lethal removal of coyotes.

Questions Received

”What is the difference between a the undesirable non-native species like mountain goats and experimental/non-essential non-native wolves?”

”Why is your department so unwilling to completely remove the experimental/ non-essential wolves in the very same manner you are the goats, because it’s exactly what you promised in the original agreement in the first place.”

”Why is it that every western state puts precedence to their ungulates over their predators and Wyoming won’t.”

Thoughts.....



© Stan Harter

Disturbance/Access



- Manage the impacts of human disturbance while providing recreation access.
- Manage stress on bighorn sheep caused by management or research activities.

Manage the impacts of human disturbance while providing recreation access



- WGFD will maintain the seasonal closure to motorized vehicles on the Whiskey Basin WHMA December 1st – May 15th .
- WGFD will continue to allow human presence within the Whiskey Basin WHMA, on foot or horseback, December 1st – May 15th .
- WGFD will continue to evaluate wintering sheep use and human presence in the Torrey Valley to ensure human activity is not adversely impacting winter sheep.
- WGFD acknowledges the potential of dogs to be problematic for bighorn sheep and will install signs to encourage visitors to keep dogs under their immediate control.
- WGFD will continue enforcing existing travel management on WGFD managed lands encompassed by the Whiskey Basin WHMA.

Manage stress on bighorn sheep caused by management or research activities



- WGFD and researchers will always minimize the number of captures to only those necessary to accomplish project goals.
- WGFD will continue to minimize time spent flying over bighorn sheep when conducting count/classification surveys.

Question Received

”Why will you not consider an experimental time frame for opening the habitat to all for the very purpose of allowing predator control to the people who are willing to offer that”.

Thoughts.....



© Stan Harter

Population Management



- Manage the WMBS Herd to a population size that is sustainable.
 - Evaluate the objective after the completion of the UW lamb survival study and develop a recommendation to maintain or change the current objective based on current conditions and circumstances.
 - The current research and collar data will allow WGFD to evaluate techniques to estimate this herd's population size.
 - WGFD will continue to coordinate with the WRR to collect data needed to account for all bighorn sheep within the herd unit.

Thoughts.....



© Stan Harter

Research



- Better understand the ecology and population dynamics.
 - WGFD, USFS, and BLM will provide personnel and logistical support for the UW lamb survival study started in March, 2019.
 - WGFD will assist researchers to develop a project to collar sheep, collect genetic samples, assess habitat use, and migratory movements, and disease status of sheep that are year-round residents on the west side of the Continental Divide.
 - Support captive sheep studies to add to the body of research associated with bighorn sheep disease transmission.
 - WGFD will attempt to capture and collar additional wolves to assess wolf and bighorn sheep distribution in concert with the UW lamb survival study.

Thoughts.....



© Stan Harter

Funding



- **Fund bighorn sheep population and habitat management.**
 - WGFD will continue to budget adequate funds on an annual basis to monitor this population.
 - WGFD, USFS, and BLM will continue to seek funding and resources to actively manage the habitat for this herd.
- **Seek sources of funding to adequately fund priority research.**
 - Support the UW lamb survival study and assist with pursuing any needed funding to accomplish the project's goals.
 - Partner with researchers to seek proactive ways to treat pneumonia in bighorn sheep.
 - Partner with NGOs and other sources of funding to accomplish needed research.

Thoughts.....



© Stan Harter

Public Outreach and Communication



- **Increase and maintain awareness through exchange of information**
 - WGFD will continue to coordinate with the NBSC to host an evening meeting to update the public on herd conditions, study results, habitat treatment plans, and etc.
 - WGFD's annual "Job Completion Report" will be posted on WGFD's website.
- **Actively involve the public in the management of WMBS.**
 - WGFD is committed to continuing the collaborative process on an annual basis.
- **Activate and increase local involvement and community participation**
 - Continue with the collaborative process, conduct meetings, and presentations when to maintain contact with our many stakeholders.

Thoughts.....



© Stan Harter

What you suggested, but not in the plan.....

Habitat/Nutrition

- “Habitat comparison of Whiskey to Dubois Badlands herd.”
- “Find the source of acidification.”
- “Conduct clipping for measuring utilization on summer range.”
- “Look at potential of high-elevation salt/mineral blocks (with antibiotics in them)” and “Mineral blocks as an experimental test.”
- “Track lamb weight gain relative to annual precipitation.”
- “ORP: Oxidation Reduction Potential – nutrients change based on climate and moisture. Monitor the ORP in this area.”

Health/Disease

- “Use ultrasound to detect sinus tumors.”
- “Determine whether outfitter camps that have been vacated for the year have negative impacts (health, congregation, predator attraction, and etc.)”
- “Test other species (i.e., elk, deer, antelope, horses, etc) for known pathogens.”
- “Do not need to focus on scrapie/CWD right now for bighorns.”
- “Disease and reintroduction/augmentation dynamics.”
- “Introduce a ram from a “healthy herd” to Whiskey Mountain to see what happens.”
- “North side/Spring Mountain herd- antibodies, genetics, difference to WMBHS.”
- “Examine to see if Whiskey transplants exhibit same trend in body size vs. local sheep.”
- “Use remote trail cameras to track predator numbers and identify chronically ill sheep.”

What you suggested, but not in the plan.....

Predators

- “Make wolf hunt area 13 a predator area or a flex zone.”
- “Wolves: Canadian wolves vs. historical species (smaller).”
- “Consider “master hunters” program to maximize predator take.”

Population Management

- “Don’t hunt near the conservation camp.”

NEXT STEPS

- Now: take comments on the draft plan
- WGFD will review all comments and incorporate what we can, identify what we cannot in the appendix in the final plan by July 31, 2019.
- WGFD will work with the Whiskey Mountain Bighorn Sheep Technical Committee to implement these action items.
- Revise and adapt the plan when needed as we learn more.



**We all created this Plan.
Now let's put it into action.
See the Draft Plan at:**

<https://wgfd.wyo.gov/wmbhs>

