

**Wyoming Wild Sheep Foundation & WGFD 15<sup>th</sup> Annual BHS Summit**  
**Burgess Junction/Bear Lodge/Elk View Inn**  
**June 15-16, 2017**

Thursday (June 15)

**Anytime** in the afternoon - assemble at Cole Benton's cabin (1.55 miles S of Burgess Jct.) for snacks and drinks (BYOB would be helpful)

**6:30** - Steak Dinner (provided by WY-WSF) – Bear Lodge/Burgess Jct.

**After Dinner** – back to Cole's cabin for social, campfire, drinks

Friday (June 16)

**7:00 AM** Breakfast @ Bear Lodge (breakfast on your own \$)

**8:00 AM** Meeting – Bear Lodge, Welcome, Kurt Eisenach (WY-WSF President)  
Introductions (Board/Personnel Changes for WY-WSF, WGFC/WGFD)  
2016 Minutes & Action Items

8:30 AM Project Presentations/Updates - Completed/Ongoing/New

1. Ferris/Seminole Habitat Enhancements – BLM, Mike Murray/Chris Otto/Ryan Amundson  
Objectives are to conduct habitat work to support wildlife and bighorn sheep population augmentation in the Seminole and Ferris Mountains. This includes;

Prescribed Fire (Spring/Fall or Natural Ignition)

- Removal of timber for visual security and habitat connectivity
- Forb and mountain shrub stimulation
- Timber health (diseased conifers and aspen health)
- Water release

Weed Treatments

- Mapping of existing populations & treatments

Water Development (Springs, Seeps, Guzzlers)

- Riparian health, improved livestock distribution
- Upland wildlife watering (guzzlers)

Prescribed Fire - NEPA was completed on a landscape scale to conduct prescribed burning on the entire Seminole Mountain range located west of the North Platte River. Provided the flexibility to utilize spring, fall, and or natural ignition fires for resource benefit. This was the first Landscape-Scale Project EA of its kind out of the Rawlins BLM Office.

Telemetry data from the UWYO/WYGFD (Justin Clapp Masters Thesis Project) helped identify sheep lambing avoidance areas during burn operations.

July 2007 wildfire (250 acres) in the Bennett Mountains recovering nicely.

July 2012 wildfire (3,829 acres) in the Seminoe Mountains was managed for some resource objectives, but the majority of the tactics utilized were to prevent loss of threatened structures and prevent additional losses to power line and pipeline infrastructure. More prescribed fire planned in the Seminoe Mountains in 2019.

In the Ferris Mountains, there was a managed wildfire in the fall of 2011 that “treated” 1,400 acres. This was followed by a 9,000 acre wildfire in August of 2012 that improved sheep habitat to the south of the 2011 wildfire. Post-fire monitoring that showed a high level of ash and bare ground in 2013, now shows very little bare ground (12%), and a recovery of plant species (now 12 species present). Conifer encroached mountain big sagebrush that existed prior to the wildfire have recovered with herbaceous species and ceanothus, snowberry, and mountain big sagebrush. An additional 3 phases of prescribed fire treatments are scheduled in the Ferris Mountains.

Currently conducting prep work on Indian Pass/Marking Pen Creek manual/mechanical work (2017-2018) and/or fall Rx prescribed burn (spring 2019).

Weed Treatments - Beetles (*Mecinus janthiniformis* – Stem-Boring Weevil) were released in the Seminoe wildfire area in the spring of 2013 for control of Dalmation Toadflax.

Cheatgrass treatments in the Seminoe Mountains occurred in 2012, 2014, and 2015, totaling 3,895 acres. In the Bennett Mountain wildfire area, 240 acres were treated.

Water Development - Guzzler installations/repairs are planned or have been completed in the Seminoe Mountains (3), Bennett Mountain (1), and the Ferris Mountains (3). This work was completed with volunteer help and funding from Wyoming Wild Sheep Foundation.

2. Devils Canyon - Ferris/Seminoe BHS Transplants, Future Plans (Greg Hiatt, Daryl Lutz, Dylan Herman, Leslie Schreiber)

Devils Canyon was created from 3 separate transplants, Whiskey Mountain, WY (1973), Oregon (2004), and Montana (2006). The goals for this population were to provide ram hunting opportunities, be a source herd for transplants, and to limit comingling with domestic sheep and other bighorn sheep in nearby Shell Canyon.

The herd has done extremely well, increasing to a point where 83 Devils Canyon sheep have been translocated to the Ferris and Seminoe Mountains. Even with removals the herd remains above its desired 3-year trend count objective of 175 sheep (current 3-year average 213 sheep).

The first releases of 52 sheep (2009-2010) into the Seminole Mountains did well, but suffered losses due to 2012 fires and 2013 spring blizzards. The 2015 release of 25 sheep basically replaced 2012-13 losses, while the 2016 release of 46 sheep into the Ferris Mountains were meant to expand sheep into other parts of the herd unit.

During the January 2017 translocation effort, a ewe died while overnighing in Lander prior to the release in the Ferris Mountains. A pathologist's look at lungs suggested possible disease, which delayed the second translocation effort scheduled for March. Additional testing showed the ewe died from capture myopathy, not pneumonia, and the decision to proceed with the second translocation was made.

However, when the helicopter and capture crew were available in early March there had been significant snowfall at the release site, prompting the decision to wait. When the helicopter was once again available in mid-late March, it was too warm at the Devils Canyon capture location. Consequently the second translocation did not take place.

GPS data from the 2017 release have shown that 1 ewe was lost as a result of suspected capture myopathy while another ewe was lost to lion predation. Of the 7 GPS collared ewes remaining, 4 remain on the Ferris Mountains, while 3 have moved to the Seminole Mountains. Of the 3 rams with GPS collars, 2 rams moved to the Seminole Mountains, while 1 ram went all the way to Pathfinder Reservoir.

Of the 22 GPS satellite collars placed on sheep from the 2016 release, there were 3 mortalities (1 capture-associated loss, 1 lion predation, and 1 unknown but perhaps related to birthing difficulties). Eight more collars ceased to function, and several of the remaining collars have had sporadic service. Still, it is known that 9 of 11 remaining ewes are still on the Ferris Mountains, while 2 ewes moved to the Seminole Mountains.

With the exception of one ram who emigrated to the Narrows of Pathfinder Reservoir, sheep from the 2017 release are essentially occupying the same habitats used or explored by sheep from the 2016 release, and sheep from the 2016 and 2017 releases often appear to be traveling together. Sheep on the Ferris Mountains use burned habitats almost exclusively, while this is not true of sheep that moved to the Seminole Mountains.

Sheep hunting was initiated in 2013, and since then all 7 hunters (6 residents, 1 nonresident) have been successful harvesting rams. Survival has been high, as only 3 collared sheep are known to have died from recent releases. Lamb production is also high, as winter surveys in 2015 and 2016 revealed lamb:ewe ratios of 79 lambs:100 ewes, which is higher than recent lamb crops from Devils

Canyon itself, which have been 46:100 and 43:100 in July 2016 and 2017, respectively.

Regarding habitat improvements, additional prescribed burns are planned for the area east of Young's Pass on the Ferris Mountains (Fall 2017) and in upper Markingpen Creek in the Seminoe Mountains (2018). In 2016, a guzzler was installed at Indian Pass on the Morgan Creek WHMA in the Seminoe Mountains, while 3 more guzzlers are planned for the eastern portion of the Ferris Mountains in 2017.

Future topics include;

- Next transplant - 21 collars remain on the shelf that were not deployed. An earlier start is planned to avoid warm weather in March. A total of 40 ewes only are planned to be removed. Consideration of using a drop net vs. aerial net gunning continues to be discussed? Some issues/questions include; 1) are sheep becoming wise to net-gunning? 2) What are the logistics of getting 40-60 people to net location?, 3) Cost of \$2200/hour for Huey helicopter.
  - WY-MT Disease Testing Cooperation (Montana Fish Wildlife and Parks and Montana Wild Sheep Foundation) as Devils Canyon sheep appear to be moving closer to possible connectivity with sheep in the Pryor Mountains.
  - Ewe harvest to address population size – discussions with Moss Ranch owners will occur. Kurt Eisenach offered his help with these discussions.
3. Sweetwater Rocks/Wind River Canyon: Future potential transplant sites, politics, biology, etc. (Doug McWhirter, Ryan Admundson, Scott Smith, Steve Kilpatrick)

There are no plans to move forward with BHS translocations into the Sweetwater Rocks. Other possible sites for translocation of Devils Canyon sheep include the Wind River Canyon, as Pat Hnilicka (USFWS-WRR, Lander) shared there are few sheep that remain there now, and there is interest to obtain Devils Canyon sheep for a translocation there. An additional possibility is out-of-state opportunities after we have completed releases into the Ferris-Seminoe herd unit.

4. Elk Mountain (Black Hills) Update (Matt Rippentrop-Midwest Chapter WSF)

Matt Rippentrop of the Midwest Chapter of the Wild Sheep Foundation shared his desire to see a population objective established for the Kouba Canyon/Elk Mountain bighorn sheep herd in Wyoming. Landowners in South Dakota are threatening to purchase domestic sheep if something isn't done about elk numbers in the Black Hills of South Dakota. This situation is complicated by the fact that elk in the Black Hills are a highly prized tag for South Dakota hunters, while Wyoming has a very liberal elk season. Matt's point was not to push the bighorn sheep population too far under such a volatile situation. Matt supported

a ewe/lamb season, and questioned whether a “reciprocity” agreement could be made for Wyoming/South Dakota hunters. He also questioned the genetic impact of Wyoming’s policy to shoot wandering rams outside of occupied habitats of the Elk Mountain herd.

Casper Region has been working on establishing a population objective, which could be more than a Limited Opportunity Objective (perhaps FLIR survey based), and will be done in conjunction with South Dakota, as this is a shared herd.

**ACTION ITEM: Director Talbott will visit with South Dakota Game and Parks Director of Wildlife Tony Leif about this situation.**

#### 5. Wyoming Statewide BHS Population Genetics (Sierra Love Stowell-UW)

Our lab studies wildlife genomics and disease ecology. Bighorn sheep are caught up in a negative feedback loop between small population size and habitat loss, disease outbreaks, and loss of genetic diversity. Small population size can lead to a high risk of inbreeding, further loss of genetic diversity, and even extinction.

To date, there has been no comprehensive state-wide genetic assessment of Wyoming’s bighorn sheep herds. Without such foundation, therefore no good way to track changes in genetic diversity, herd structure, and effective population sizes going into the future. Our aim is to solve this problem and add vital information for bighorn sheep conservation. We need to know basic information such as genetic diversity, herd structure, and population sizes in order to effectively conserve bighorn sheep.

With foundation information about genetically interbreeding populations, gene flow, and genetic diversity, our work will contribute to important applications down the road, such as...

- Identify genetically interbreeding populations (herds)
- Describe gene flow among herds and identify migration corridors
- Describe and monitor genetic diversity with herds
- Connect genetic diversity and identity with translocation history
- Association genetics: test for genes associated with traits
- Estimation of genetic effective population size
- Identify populations boundaries and sizes to infer disease prevalence
- Population assignment of individual bighorn sheep
- Pedigree assignment of individual bighorn sheep
- Tools and reference data sets for forensic analysis

Our general approach uses three complementary genetic methods: mitochondrial, Y-chromosome, and nuclear DNA.

DNA from the mitochondrion is maternally inherited and has a relatively slower mutation rate, so it’s useful for describing older divergence, identifying

evolutionary and maternal lineages. This information can be used to understand translocation history and ewe movement or lack of.

In comparison, the y-chromosome has a relatively faster mutation rate and is paternally inherited, so it is useful for understanding recent divergence, identifying evolutionary and paternal lineages, and describing ram movement, including translocation that involved males.

DNA from the nucleus is inherited from both parents and has a relatively fast mutation rate. Microsatellites are places in the genome where the same DNA units repeat many times. The number of repetitions can be used to tell the copies apart. We are working with a panel of 40 microsatellites. Microsatellites are very useful for identifying individuals, building pedigrees, and describing genetic diversity within and between populations.

A genomic approach targets many, many more places in the nuclear genome. Having more loci can help identify individuals and describe populations at a greater resolution, but it can also be used to look for genes in the genome that are associated with traits like disease susceptibility or behavior.

We foresee the building of this comprehensive genetic baseline as a three-year project. We're still in the first phase of the project. We've been compiling samples, developing protocols for lab work and training personnel, working on preliminary DNA extractions and analyses, and building relationships with Montana State University, the Wyoming Wild Sheep Foundation, and the Wyoming Game & Fish Department.

- Year 1: Spring 2015-Fall 2016
  - Compile samples from Wyoming Game & Fish Department archives, hunter check stations, captures for monitoring
  - Develop protocols and train personnel
  - Preliminary DNA extractions and analysis
  - Collaboration with MSU, WWSF + WGFD
- Year 2: Fall 2016-Fall 2017
  - Compile additional samples, target hunt areas with gaps in sampling
  - Request and compile herd data
  - Analyze additional individuals, focus on genomics and landscape genetics
  - Publication + reporting, collaboration with MSU, WWSF + WGFD
- Year 3: Fall 2017-Fall 2018
  - Compile additional samples
  - Genotype remaining individuals
  - Publication + reporting, collaboration with MSU, WWSF + WGFD
  - Recommend next phases for research and management

We currently have more than 800 blood, tissue, and horn samples collected over the last 20 years. To start, we've been focusing on the most recent sampling years, from which we have more than 300 samples from 2015 and more than 400 from 2014 through 2016. Current samples include sheep from the Targhee, Jackson, Darby Mountain, Absaroka, Devils Canyon, Laramie Peak, Encampment River, Whiskey Mountain, Ferris-Seminole, and Kouba Canyon/Elk Mountain sheep herds. Undersampled areas include the Targhee, Darby Mountain, Douglas Creek, and Encampment River herds, and emphasis will be placed on getting samples from these areas.

Preliminary mitochondrial DNA results show expected results at the landscape level; Elk Mountain sheep are distinct from all others (they are not from a Wyoming source population), Devils Canyon and Ferris-Seminole sheep are similar (Ferris-Seminole mostly derived from Devils Canyon), Jackson, Whiskey Mountain, and the Absarokas are distinct, with Darby closely aligned with Whiskey Mountain (it was founded with Whiskey mountain sheep), and Targhee more closely aligned with Jackson. More samples and more analyses may provide further insights into some of these distinctions.

6. Health Surveillance Results from 2016-2017 and 2017-2018 captures @ Laramie Peak, Douglas Creek, and Encampment River (Mary Wood, Hank Edwards, Doug McWhirter)

- Based on 728 sheep sampled and 59 mountain goats
- Sample size 10% of herd needed for confidence
- Several "most important" pathogens (not just one) – Mycoplasma ovipneumoniae, Mannheimia haemolytica, Biberstenia trehalosi)
- Resident pathogens have little effect, but outbreaks still possible given right circumstances
- Reduced pregnancy rates detected in the Absarakas and in Jackson
- Most herds low in iron, zinc, and molybdenum
- Sinus Tumors – 18 detected in sample of 64 heads
- Sinus tumors not in Devil's Canyon & Temple Peak, but everywhere else
- Sinus Tumors – CT scan to detect, develop a live animal test?
- Plans for 10 captures/collars in Laramie Peak, 10 captures/collars in Douglas Creek, and 5 captures in the Encampment River Canyon
- The availability of helicopters on other nearby capture efforts to reduce ferry time/costs will dictate timing

7. BHS Nutrition and Disease (Kevin Monteith, Doug McWhirter, Daryl Lutz, Greg Anderson)

Nutrition is important because fat is the currency by which these animals make decisions that affect population performance. When bighorn sheep nutrition is poor or if they are compromised by disease, resources are withheld from reproduction. Bighorn ewes have a conservative reproductive tactic and always

favor their own body condition over that of their lambs. Females lower their reproductive effort when population density increases and if they weaned a lamb the previous year, which leads to lower winter survival of lambs.

Infection does not always mean the manifestation of disease, as an animal may be infected without clinical signs. Information from statewide bighorn sheep disease surveillance has shown that most Wyoming sheep herds are infected with various bacteria with variable impacts. This raises the question of how disease outbreaks are influenced by ecological and/or environmental conditions such as contact with domestic sheep, severe weather, and density dependence. Other researchers have found that exposure to domestic sheep is key, weather doesn't matter, and that density does affect dieoffs. In one summary 88% of documented dieoffs occurred within 3 years of the numerical peak of the population. Depressed vital rates are underpinned by nutritional state, and there is evidence that immunosuppression can be caused by a compromised nutritional state.

The bighorn sheep disease/nutrition project was initiated to measure nutritional condition, assess pneumonia infection, measure stress levels, and link those data to reproductive performance, survival, and subsequent nutritional condition. Recapturing the same marked females through time yields the opportunity to connect nutritional condition, stress, and disease with individual performance to identify nutritional thresholds associated with susceptibility to disease and link those thresholds to demographic performance and herd density.

This project will seek to identify nutritional thresholds in these populations where density dependence and nutritional suppression begins to affect susceptibility to pneumonia-related mortality, which will; 1) yield knowledge of the proximity of populations to nutritional carrying capacity, 2) help to unravel the nutrition-disease interface, and 3) inform managers if and when ewe harvests could be implemented as a possible means to reduce density, improve nutrition, and lessen probability of a dieoff.

Preliminary results indicate body mass of Whiskey Mountain sheep is significantly lower than that of either Absaroka or Jackson sheep (fall weights in Absarokas/Jackson 155-165 pounds versus 140 pounds in Whiskey Mountain sheep). Interestingly however, Whiskey Mountain sheep tend not to accumulate as much body fat by fall as Absaroka or Jackson sheep, but they end up having a similar amount of body fat by the end of winter. In other words, they don't put on as much fat, but they lose less fat over winter. In 2015, non-lactating ewes in Whiskey Mountain had significantly less body fat compared to those in the Absarokas and Jackson herds. And in 2016, there were hardly any lactating ewes at Whiskey Mountain, even though pregnancy rates had been high the previous year. Something is obviously operating at Whiskey Mountain that is not having a similar impact in the Absarokas or Jackson areas, and perhaps a matter for further investigation.



8. Pack Goat EIS, Shoshone National Forest (Andy Pils-SNF)

The Shoshone National Forest (SNF) has been tasked to manage recreational pack goat use while addressing potential risk of pathogen transmission to core native bighorn sheep herds on the SNF. In an effort to find common ground, the USFS hosted a meeting that included the Wyoming Game and Fish Department, the Wyoming Department of Agriculture, the North American Pack Goat Association, and the Wild Sheep Foundation and its Wyoming Chapter. The group met twice, and arrived upon an arrangement that allowed pack goat use into desirable areas, but precluded their use in the occupied habitats of the core native bighorn sheep herds on the SNF. This collaborative proposal was then forwarded to the USFS Regional Office for consideration.

9. Bridger-Teton NF Update (Randy Griebel-BTNF), written update

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10. GTNP sheep/goat Update (Sarah Dewey-GTNP) followed by discussion on goat transplants, legislation, etc.

Loss of low elevation winter ranges (and presumably the portion of the population that migrated back and forth to lower elevation ranges) is significant in the history of the Targhee/Teton bighorn sheep herd. The remaining non-migratory sheep are susceptible to severe winter weather, accidents (avalanches), and genetic isolation. In fact, evidence show there is even isolation between the northern and southern segments of the Targhee herd.

Recent trend counts have ranged from 80-100 in 2008 and 2010, to between 48 and 57 from 2015-2016. The most recent survey was 48 sheep, with a lamb:ewe ratio of 24:100.

Targhee sheep have been found to be relatively naïve to common respiratory pathogens of bighorn sheep found in other herds in northwest Wyoming, as leukotoxic *Mannheimia* has been documented, but not *Pastuerella multocida*, *Mycoplasma ovipneumoniae*, or leukotoxic *Biberstenia*.

Domestic sheep allotment closures (done with funding and assistance from WY-WSF) have removed the threat of disease transmission, and skier closures in GTNP have lessened disturbance on key winter ranges, but recent counts raise concerns over the current and future status of this herd.

In addition, the introduction of mountain goat in southeastern Idaho (5 goats-Palisades Creek, 1969, 3 goats-Black Canyon, 1970, 4 goats-Black Canyon, 1971) and their eventual expansion into GTNP has created additional concerns with respect to forage competition on already limited winter ranges and disease

transmission. Although sporadic in nature through the early 2000s, a breeding population had become established by 2008. The current number of goats in GTNP is estimated to be 60-80 animals, and modeling of suitable goat habitat with known densities in nearby areas predicts there is habitat to eventually support as many as 250-400 goats. Productivity remains high, as recent kid:adult ratios have been 41:100. To date, collared goats seem to inhabit the high quality sheep habitats between the north and south segments of the Targhee sheep herd.

Although disease surveillance work has found GTNP goats to be relatively clean (they have been documented to harbor leukotoxic *Biberstenia*), their presumed source population in the Snake River Range has shown the full spectrum of pathogenic pneumonic bacteria (leukotoxic *Biberstenia*, leukotoxic *Mannheimia*, *Pastuerella multocida*, and *Mycoplasma ovipneumoniae*).

Because the Targhee/Teton Range bighorn are already considered at risk to severe weather conditions and human disturbance, mountain goats represent an additional risk of competition for resources (especially already limited winter ranges) and potential disease transmission. In addition, the NPS policy is to conserve native species.

So in response, a Mountain Goat Management Plan/Environmental Assessment is being developed, which include the following preliminary alternatives;

- Alternative A: No Action
- Alternative B: Lethal Removal
  - Ground and/or aerial shooting
  - Capture and euthanization
  - Additional winter range closures
  - Continue sheep and goat monitoring
- Alternative C: Combination Lethal and Non-lethal Removal
  - Same lethal methods as Alt. B
  - Capture and relocation
  - Additional winter range closures
  - Continue monitoring efforts

Utah Division of Wildlife has expressed interest in mountain goats from GTNP if available. Future need for discussion regarding potential in-state areas suitable for mountain goat transplants?

Legislation was introduced, but did not pass in 2016 legislature. Will hopefully get introduced in 2017 and have better success. This would allow opportunity to keep goat densities low in desired areas (Tetons, Absarokas).

## 11. Temple Peak Update (Daryl Lutz)

A total of 24 sheep (17 ewes, 7 rams) were collared in the Temple Peak herd to better define the currently occupied habitat of these sheep and to learn of pathogen presence in this Cooperative Review Herd. Although some Temple Peak sheep remain relatively sedentary year-round on winter ranges, there are sheep that migrate to high elevation summer ranges near the Continental Divide, although none occupied summer ranges west of the Continental Divide on the BTNF. One ewe did make a single day excursion west of the Divide, but returned to her previously occupied range. High elevation summer ranges included the area east of Lizard Head Peak, and areas near the headwaters of the South Fork of Bull Lake Creek, and the North Fork of the Little Wind River on the Wind River Reservation.

#### 12. 2016-2017 BHS Chapter 56 (Lethal Take) Actions Statewide (Doug McWhirter)

In May 2017, 3 rams (2 yearlings, 1 2-year old) were removed near Newcastle. The rams were outside of the established herd unit, and domestic sheep and goats were in the area. There have been sporadic reports of a small group of sheep in the Sand Creek area south of Hulett for several years, but none have been observed or removed. A total of 8 BHS were removed in the last year.

#### 13. WGFD/WYDOT Summit and Red Rocks summaries (Daryl Lutz, Joni Miller)

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#### 14. Southern Absaroka Mountains BHS Monitoring (Doug McWhirter)

In March 2015, 10 sheep (5 rams, 5 ewes) were collared on the South Fork of Owl Creek and associated areas on the Wind River Reservation (WRR). Rams were fitted with real-time GPS collars, while ewes were fitted with Store-On-Board GPS collars. Although the ewe collars have fallen off, they have not yet been retrieved and thus do not have detailed movement data available. However, all ewes were captured on the WRR, and all monitoring relocations showed they remained on the WRR.

The 5 rams spent most of their time on the divide between the South Fork of Owl Creek and Rock Creek. Four of the 5 rams made relatively brief movements onto private lands east of Rock Creek, but they did not move downstream. All rams moved back and forth across the WRR boundary at one time or another. All rams moved northwest onto the Shoshone National Forest near Washakie Needle, with 4 of the 5 rams moving as far north as the head of the Wood River (the fifth ram only traveled as far north as the head of the South Fork of the Wood River. One ram traveled through the Wiggins Fork drainage down to Black Mountain in November, presumably to rut. In December the ram returned to his previous home range on the Owl Creek-Rock Creek divide.

#### 15. DS Allotment Updates (Steve Kilpatrick, Jim Collins)

Updates on the Wyoming Range and Triple Peak Forage Reserves and monitoring needs, as well as discussion over the status of Fred Roberts's allotments. A meeting to discuss allotment negotiations in general, and these specifically, will hopefully be arranged that would include WY-WSF, WSF, WDA, WGFD, WSGA, WWGA, USFS and others.

**~12:00 Break for lunch buffet @ Bear Lodge (compliments of WY-WSF)**

**1:00 PM - Reconvene**

**2017 WGBGLC & GIA BHS Funded Projects**

**All WY Wild Sheep Funding Proposals 2017**

Funding Source		WGBGLC - BHS		WY-WSF GIA	
Project Name	Total Cost	\$ Requested	\$Approved	\$ Requested	\$Approved
<b>May/June Funding</b>					
Ferris Mountain Prescribed Burn Phase II	\$20,000	\$10,000	\$15,000		
Ferris Mountain Guzzlers	\$27,000	\$12,000	\$12,000		
Teton Range Mountain Ungulate Population Dynamics	\$325,766	\$20,960	\$0		
Bighorns of the Canyon	\$25,000	\$15,000	\$0	\$10,000	\$0
Bighorn Sheep Disease/Nutrition Project	\$34,775	\$26,355	\$20,800		
Online VHF Data Viewer	\$26,000	\$3,000	\$0		
Harvest Records and Horn Size	\$78,750	\$5,000	\$0	\$5,000	\$3,000
Online Migration Viewer Education and Outreach	\$17,000	\$4,000	\$0		
Wyoming Statewide Bighorn Sheep Population Genetics	\$57,580	\$28,790	\$28,790	\$28,790	\$0
Statewide Bighorn Sheep Telemetry Flights		\$18,750	\$18,750		
Bighorn Sheep GPS Collar Uplink Fees	\$44,000	\$44,000	\$31,200		
Statewide Disease Surveillance of Bighorn Sheep	\$55,350	\$55,350	\$47,350		

Wandering Bighorn Sheep Satellite Collars	\$10,000	\$10,000	\$0	\$10,000	\$10,000
Wyoming Educational Exp	\$89,085	\$1,000	\$2,000		
Cabin Creek Conifer Removal	\$285,000	\$10,000	\$10,000	\$25,000	\$25,000
Remote Camera w/ Cellular Capability	\$4,200	\$3,000	\$3,600		
BH Sheep Trailer	\$20,000	\$20,000	\$20,000		
Bighorns to Ferris 2018	\$67,000	\$52,000	\$52,000		
Pinedale/Jackson Info Signs				\$2,000	\$2,000
Devils Canyon Habitat Improvement Project - Cheatgrass	\$45,000			\$5,000	\$5,000
Johnson Co 4-H Shooting Sports Program	\$18,000			\$3,500	\$0
Devil's Canyon Ram Collaring Data Fee	\$1,600			\$1,600	\$1,600
Bighorn Sheep Survival As A Function Of Forage Use And Quality, Soil Nutrients, And Population Health, Particularly Relating To Lamb Recruitment	\$48,785			\$44,125	\$0
Population characteristics, movements, and disease surveillance in the Palisades mountain goat herd	\$14,650			\$14,650	\$14,650
Hunting with Heroes	\$10,000			\$10,000	\$0
Access Enhancements at the National Bighorn Sheep Center	\$5,765			\$3,265	\$0
Education & Outreach Enhancements at the National Bighorn Sheep Center				\$15,000	\$15,000
Assessing the geographic origin and colonization of nonnative mountain goats in Grand Teton National Park	\$96,760			\$10,500	\$10,500

WY Girls Youth Antelope Hunt with Boulder Basin Outfitters & Babes, Bullets & Broadheads				\$900	\$450
Conservation Camp Dubois	\$5,800,000			\$20,000	\$10,000
<b>SUBTOTAL</b>	<b>\$7,160,066</b>	<b>\$339,205</b>	<b>\$261,490</b>	<b>\$209,330</b>	<b>\$97,200</b>

**Other Topics:**

1. Balance of habitat, research, monitoring projects
2. Discussion of WGF D M&O budget for BHS management – current and future
3. WY-WSF banquet/fundraiser summary

**Upcoming Meetings**

- o WY-WSF Winter Meeting (December 2-3, 2017, Jackson)
- o January 18-20, 2018 WSF Convention in Reno (Reno-Sparks Convention Center & Peppermill Resort & Casino)
- o WY-WSF Convention in Casper (June 1-2, 2018)
- o WY DS-BHS IWG (December, 2017)
- o Date for 2018 WGF D/WY-WSF BHS Summit

**3:00 PM** Wrap up – Kurt Eisenach, Steve Kilpatrick, Doug McWhirter, Ryan Amundson, all