



Big Hole Watershed Committee

Monthly Meeting Minutes

Wednesday, March 20, 2019 – 7:00 pm

Divide Grange – Divide, Montana

In Attendance

Pedro Marques, BHWC; Tana Nulph, BHWC; Ben LaPorte, BHWC; Erik Kalsta, Rancher/BHWC; Betty Bowler; Tom Bowler; Kim Johnston, People and Carnivores; Susan Stone, Big Hole Ranch; Sam Stone, Big Hole Ranch; Jacqueline Knutson, MFWP; Randy Smith, Rancher/BHWC; Jessica Phillips; Lucas Phillips; Nathan Lance, MFWP; Murray Strong, Pioneer Technical Services; Julia Nave, TNC/Big Sky Watershed Corps; Chet Robertson, BHWC; Paul Cleary, BHWC; Sandy Cleary; Craig Fellin, Big Hole Lodge; Eric Thorson, Sunrise Fly Shop/BHWC; Scott Reynolds; Jim Dennehy, Butte-Silver Bow Water Utility/BHWC; Jim Hagenbarth, Rancher/BHWC; Steve Luebeck, Sportsman/BHWC; Dean Peterson, Rancher/BHWC; Peter Frick, Rancher/BHWC; and Jeanne Dawson, USFS – Beaverhead-Deer Lodge Nation Forest.

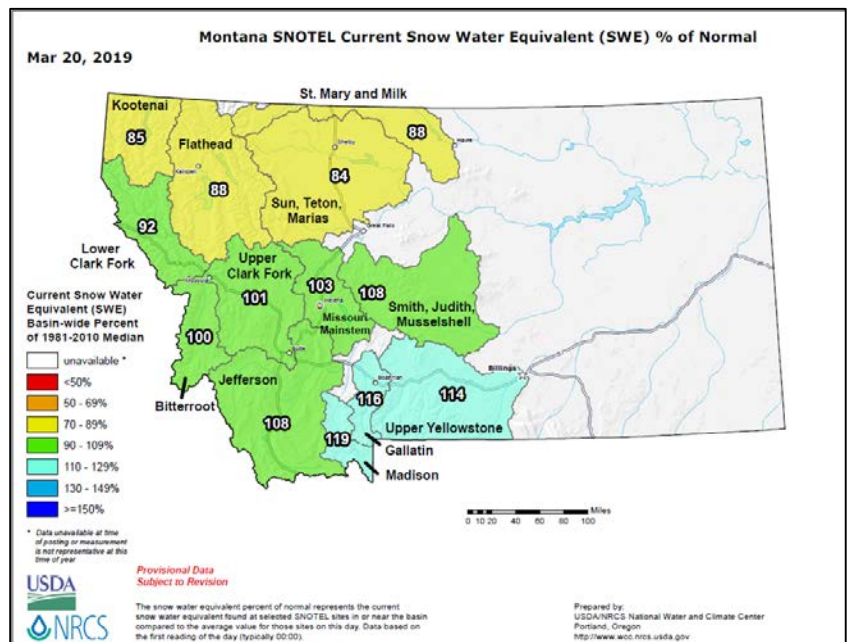
Introductions *Attendees introduced themselves.*

Meeting Minutes *February 2019 meeting minutes were reviewed, no additions or corrections.*

Reports

Streamflow/Snowpack Report – Jacqueline Knutson, Montana Fish, Wildlife and Parks

- *Streamflows:* Gages are seasonal and are not currently reporting flows.
- *Snowpack:* Snowpack conditions improved greatly across southwest Montana last month and the boost we got at the end February and beginning of this month nudged us into the (barely) above average category. Currently the snowpack in the Big Hole Basin is average, sitting at 95% of normal. The Jefferson Basin is 108% of normal. As we move into the spring it is still possible to augment our snowpack as March through May often yield a significant portion of the yearly snowpack depending on temperatures. We can also usually expect peak snowpack to occur in late April and the most important piece of the snowpack story is the timing and availability of runoff. Lower elevations are above average due to the February storms but high elevations are still below average which will have a greater effect on late spring availability of runoff.
- *Precipitation:* Precipitation in Montana was above average in February, particularly in parts of southwest Montana. After two months with average to below average precipitation it's been nice to see



snow accumulating at the SNOTEL sites around the state. Between February 26 and March 8 enough snow fell in the Big Hole valley to bring our snowpack up to 100% of average. Warmer temperatures have reduced that to 95% rather quickly but given the dry December and January we had the addition of a strong February for precipitation is very good.

- *Temperatures:* Temperatures in February were the coldest recorded in Montana since 1936 and across the state the average temperature was 4.6F with an average temperature departure of 19.5F from normal. This shift from above average temperature to well below average occurred over the space of a few hours (and in some places a few minutes—temperature changes of 30 degrees in 10 minutes were recorded in some areas) around the 2nd of February and stayed consistently around 0F from the rest of the month and into the early part of March. As March has pressed on, though, we have swung to the other side of the pendulum and we are seeing warmer than average temperatures over the last few days and this will continue for the foreseeable future (10-day forecast).
- *Forecast:* A weak El Nino formed in January and is persisting through the spring. The effects of this weak El Nino were clear in January but February brought a change in flow and we had good precipitation and bitter cold temperatures. El Nino should stick around (55% chance) through at least May if not through the summer and even though we got some respite from normal El Nino conditions last month don't be surprised if the faucet turns off and true El Nino conditions return to Montana. The three-month outlook currently favors average precipitation through the rest of the spring and above average temperatures through the early spring.
- Most recent NOAA 3-month outlook is for above average temperatures and average precipitation through the early spring.

Director's Report – Pedro Marques, Executive Director

- Jen and Pedro are setting up some new, more efficient administrative and accounting processes to streamline BHWC's work. Jen is working on cataloguing BHWC's archives.
- Burma Road project – BHWC is set up to receive donations from private individuals to help support that project. Working to move the flow out of the side channel and into the main channel to protect the bridges there. Working with George Grant Trout Unlimited; have jointly raised about \$17,000. Total cost: \$70,000. *More information included as attachment.*
- Working with a group of folks on low-tech restoration techniques that store water on the landscape. It's very difficult to get this type of project through the Army Corps of Engineering's permitting process. This group is working together to find ways to get the ACE to the understand and be more flexible with permitting of these projects. There is a Ph.D. student who will be coordinating this project.
- Big Sky Film Festival – BHWC's French Gulch film and an upcoming film about the Smelter Hills restoration will be featured at the festival, which will be held June 5th during the American Society of Mining and Reclamation conference.
- Pedro has been following 2 bills in the Legislature:
 - SB32: Stream Gage bill to figure out ways to fund Montana's stream gages and create a working group to address this issue. Currently in the House NR committee. So far there have been several proponents and no opponents to this bill. There is a fiscal note of ~\$45,000 over 2 years. If the bill is passed by this committee, it will go to the floor for a vote. Need to secure 2 Republican votes to secure this bill.
 - HB260: Allowing service organizations like MCC to be exempt from procurement laws so they don't have to compete with large engineering firms to do the work they do.
 - HB286: DNRC has been claiming private, exempt stock-water rights on private land; disregarding water court decision on that issue. If a farmer is using his own water on State land, DNRC wants their name on that water right. This sets a dangerous precedent of challenging water court decisions. The Legislature will likely make a law that DNRC cannot attach their name to water coming off private land. The bill is currently in House committee. Jim Hagenbarth is keeping track of this bill and commenting on it (on his own behalf). For more information, visit: <https://leg.mt.gov/bills/2019/billhtml/HB0286.htm>.

- Montana Fish, Wildlife and Parks (Travis Horton, R3 Fisheries Manager) convening group of interesting parties on April 10th in Bozeman regarding the cumulative effects of private ponds. If there is a BHWC board member that is interested in representing BHWC on this committee, please let us know.

Steering Committee – Randy Smith, Chairman; Jim Hagenbarth, Vice-Chairman; and Steve Luebeck, Treasurer

- Steering Committee is happy with the progress BHWC is making.

Wildlife Report – Jim Hagenbarth, BHWC Vice-Chairman/Rancher; Dean Peterson, BHWC/Rancher; Tana Nulph, Associate Director

- Carcass removal services are available March 1 – middle of May. Call John Costa. Carcasses are hauled to our livestock carcass compost site near Wisdom. Removing carcass attractant from local ranches can help prevent conflict with predators like bears and wolves. *Carcass removal flier included as attachment.*
- Wildlife Speaker Series – This year's event will focus on otters and will be held in early August. Looking for a venue – if anyone is interested in potentially hosting the event at their ranch/property, please let us know. We will provide chairs, tables, food, garbage cans, and porta-potties. We just need a place with adequate parking and ideally an indoor area like a barn where we can set up a PowerPoint presentation. We will do all of the setup along with our partners with WCS.
- Wolf situation in the Upper Big Hole hasn't changed; not much in terms of additional depredation and Wildlife Services hasn't removed any additional wolves.
- A wolf killed a calf and possibly a heifer at Melrose at Soap Gulch. One wolf was snared there and 2 more were caught between there and the Melrose exit, 1 more at Trapper Creek. Caught by private individuals. About 10 wolves in that pack. 3 adults and 1 young wolf count. This happened end of January/first part of February. Haven't heard of any more depredation/wolves taken in this area. This group has been causing some trouble for a while. This happened during the Government shutdown, so Wildlife Services were unable to do any control work at that time. Wildlife Services handles the trapping/conflict side of things.
- Governor Bullock forming a Grizzly Bear Advisory Council to spur discussion on grizzly management, conservation, and recovery across the state.
 - The council will be in charge of making a list of recommendations for bear management in the state, considering topics like human-bear conflict, hunting and ecosystem connectivity. A total number of council members has not yet been set.
 - Bullock says he is looking to represent a broad range of interests including livestock producers, conservation groups, and tribal representatives.
 - Applications are due by April 12.
- Beaverhead County Commissioners passed a resolution to pay \$500 reimbursement fee to anyone who takes a wolf in Beaverhead County legally. This is directed toward producers that are having problems. It was just passed a few weeks ago. If anyone wants to donate money for this cause (sportsmen groups, etc.), they help support the fund through the county.
- *2018 Program Summaries (Upper Big Hole Range Rider, Carcass Removal & Composting, Bear Safety) included as attachments.*

Restoration Report – Ben LaPorte, Program Manager

- Will plug up failed beaver dams at East Divide Creek as soon as we can get up there.
- Morris Ranch beaver mimicry project coming up this spring – working on pushing through permitting with ACE.
- Anaconda Superfund work continues – more hand work this year including weed treatments, seed & fertilization applications. Excited to see results of work this spring when the snow melts.
- Lower French Creek and Oregon Creek projects: Final designs are about 90% done. Will get final permitting out the door next week hopefully. Ready to get going with those in the fall. Hoping to get bid package out in April and have contracts in place by May. Hoping to have one contractor for both projects.

- Ben is working on conifer encroachment and forestry issues. Last week met with BLM, MFWP, USFS, NRCS, and TNC to see where each agency is with conifer encroachment, aspen regeneration, etc. Talking about the Eastern Pioneer region. Will be working to coordinate these groups and get them working on more of a landscape scale approach to start seeing some real effects in terms of wildlife habitat and late season water flows. Also looking at working with private landowners in that region to try to get some work done. If anyone landowners in that area are interested, please get in touch with Ben.
 - NRCS has received directive from on high to create targeted restoration plans; they will choose a general objective in a general area and funds that they make available will be available to that area/objective. So if we put together projects within the identified objective/area, NRCS will provide 75% of the project funding; Ben is working proactively to identify these projects and stack agency funding to get projects in place. Working with Sean Claffey and Kyle Tackett with NRCS.
- *Discussion:*
 - *French Creek was the topic of the controversial fish barrier project last fall – there was a lot of controversy surrounding this project. Is that still going on?*
 - *MFWP decided that there were a lot of emotional reasons not the go through with the barrier project but not really any scientific ones. The barrier project is moving forward; it has been contracted and will be moving forward this fall. That is MFWP's project; our work is to improve the habitat so that the native fish will have a place to live once the barrier is complete.*

People & Land Use Planning Report – Ben LaPorte, Program Manager

- Three streambank stabilization projects ready to go as soon as we can get machinery in there and coordinate with Tom Miller and the other contractors. Will get this done in between snowmelt and high runoff.

New Business

- Proposal to put in solar field on 1,308 acres of State land near Birch Creek. State says it will generate \$400,000 annually as well as \$500,000 in property taxes for the county. The two lessees will have their leases cancelled. This project makes 16 times more income than grazing leases. This is raising a lot of eyebrows in this area; has some impact on the salability of the subdivision there. We will likely hear more about this in the near future. This will have to go through a scoping process to identify impacts to the land, wildlife, etc. For more information, visit: <http://dnrc.mt.gov/divisions/trust/real-estate/commercial-leasing/proposed-solar-development-lease>.
 - Northwestern Energy is required to buy that energy by State law.
 - There will be a public open house on Wednesday, April 17, 2019 from 4:00-7:30 pm at the Dillon Unit Office (DNRC), 840 North Montana St. in Dillon, MT
- Jeanne Dawson, new Range & Recreation Specialist with the USFS. Excited to learn about new opportunities like working with the agencies on conifer reduction. Part of her role is to help partnerships expand and identify areas of alignment with other organization. Also the Resource Advisory Committee (RAC) Coordinator. Would like to extend a personal invitation to everyone to apply to be on the RACs. You don't have to reside in the county apply to be on a county's RAC; you just need to live in the state of Montana and have a desire to help serve your public lands.

Meeting Topic: Wildlife Conflict Reduction

Presentation by: Chet Robertson, Upper Big Hole Range Rider, BHCW; and Kim Johnston, Field Program Manager, People and Carnivores.

Background: Chet Robertson has been BHCW's Upper Big Hole Range Rider since 2011. Each summer, Chet monitors 7 grazing allotments for livestock producers in the Upper Big Hole Basin from July 1st – September 30th. Chet monitors allotments using foot, horse, ATV, and vehicle patrols and observes predator activity,

cattle behavior, and range health. He reports predator presence/activity and injured livestock to livestock producers, who doctor or monitor livestock more closely as a result of this information. He also reports suspected livestock depredation to Wildlife Services, who investigate the situation to determine if the producer can be reimbursed for their loss.

Kim Johnston leads People and Carnivores' conflict prevention efforts in the High Divide area of Southwest Montana. She was born and raised in Montana and received her Bachelor's degree in Wildlife Biology from Montana State University before working on grizzly bear management in the Rocky Mountain Front. Kim recently moved to Dillon to take on the position of Field Program Manager for People and Carnivores.

Upper Big Hole Range Rider Program

- The Upper Big Hole Range Rider program started 8 years ago. A 2018 Upper Big Hole Range Rider Program summary is included as an attachment.
- For the first 3 years of the program, Chet focused on the cattle, but at that point, he started noticing patterns and concentrating more on the wolves.
- There are 2 kinds of range riders: those who focus on cattle and those who focus on wolves. Chet works to “harass” the wolves as much as possible and keep them thinking and wondering, “Why is he doing this?”
- Chet believes the wolves are so busy spaying attention to him that they don’t have a lot of time to pretty on cattle. Chet is there because of the wolves and they know it.
- He leaves markers – like stacks of rocks in their trails – to let them know he’s there.
- Chet finds wolf kills on occasion; some get confirmed, but they have to be found and confirmed by wildlife Services quickly or the bears will be on them.
- Dean Peterson, BHWC Board Member/Rancher:
 - The Upper Big Hole has had multiple wolf packs. When one gets eliminated, another moves in and they move in the same areas. They prefer the edge of the timber.
 - From the producers’ standpoint, Chet gives us a lot of information regarding lame, sick calves. It’s very productive for us. How do you quantify it? It’s tough to do. Would the producers pay for the program if it was up to them? Probably not. But the program can be very helpful to our operations.
- A lot of the time, by the time you find a carcass, bears and all kinds of animals have been all over it. Chet found 2 carcasses last summer; he could identify wolf bites. Wildlife Services came the next day but in both cases, bears had eaten the carcasses. The first carcass was still able to be confirmed for reimbursement to the livestock producer. Graeme removed 2 wolves and there was no further depredation.
- Chet: “This job has been a pleasure and wonderful learning experience. It’s important to learn that there’s a lot of propaganda about wolves. Wolves are a wonderful animal ... and they are the devil. They are both things. I think it’s ridiculous to hate wolves; they’re doing what they’re meant to do. I don’t hate them. If you want to hate someone, hate the people who put them there. We’re not getting rid of them, so we need to learn to live with them.”
- In 2019, we will be starting a Range Rider blog to capture and share some of the highlights of Chet’s work.
- Discussion:
 - What surprised you most about working with these wolves?
 - They’re very predictable and very social.
 - Do you see the wolves often?
 - Not often, I’ve seen them 2-3 times. Once at Max Lapham’s feeding ground, once about 80 yards away as I was changing a game camera, and one last summer – about 60 feet away on a trail. I chased it with my four-wheeler to keep it wary of humans. It was a yearling. Our game cameras have taken lots of photos of wolves over the years.
 - Are the wolves getting used to you? Are they changing their behavior?
 - They are changing their behavior a little bit. They will move creek crossings and avoid game cameras if they see or hear them. I have to be very sneaky and strategic about camera placement. Wolves are very neophobic – they don’t like anything new.

- *What are the wolves eating when not cattle?*
 - *Rabbits, deer, elk.*
 - *Wolves will kill many animals in their travels – sometimes they'll eat some – sometimes they'll just mark the carcasses and move on. They will get by on rabbits and smaller animals when possible.*
 - *They kill more calf elk than we realize and they feed on gut piles during hunting season.*
- *Why do wolves just bite the leg sometimes and not kill them (their prey)?*
 - *Sometimes, they are teaching pups to hunt. This is also a common hunting tactic of wolves.*
 - *When pack numbers exceed 5-6 wolves, they start to get pretty hungry and will try to find food sources.*
 - *Not all packs will kill cattle.*
- *Are you writing down everything you're learning and observing in the field?*
 - *Yes, I do daily reports.*

People and Carnivores Programs and Projects

- Lethal control can be useful, but is not always effective at reducing recurring conflicts. People and Carnivores works with a variety of nonlethal predator management techniques, including:
 - Fladry: Flagging around small holding areas like calving pens, pastures, etc.
 - Temporarily deters wolves (2-8 weeks). Mountain lions and bears will go right under it.
 - People and Carnivores also uses cameras to see how wolves interacts with fladry.
 - Wolves don't like flags because they are new and different.
 - Flags can be attached to electric fencing; the extra jolt will help to deter wolves.
 - There is a specific height at which to hang the flags: just off the ground, with the wire high enough that wolves can't easily jump over.
 - Most effective in areas less than 40 acres that are not excessively windy.
 - Electric Fencing:
 - Can be very effective with proper design and voltage.
 - Electric fencing is Kim's specialty. She helps landowners design and build electric fences. She built more than 40 different fences in the Rocky Mountain Front to protect everything from chicken coops, to bee yards, orchards, calving yards, night pends, ranch yards, residential areas, etc.
 - Electric fencing can be very effective at deterring bears and other predators from entering fenced-off areas.
 - Kim has also worked with innovative electric designs, including:
 - Temporary electric fencing.
 - Electric drive-over mats (near garbage cans, in place of gates, etc.)
 - Electrified grain chutes
 - Scare Devices: Use acoustic or visual stimulation to deter predators.
 - Can be effective temporarily, especially if you mix up how and when you use these tools and use a combination of tools.
 - Fox lights: flash throughout the night.
 - Propane scare cannons: Fire off "shots" in different directions. Sounds like a high-powered rifle. Best for use in remote areas.
 - Radio/other noise maker: Any kind of noise or light can be useful for temporarily deterring predators.
 - "Critter Gitters": motion-detection alarm – makes a piercing sounds like a fire alarm. Can also be useful to leave on a carcass when hunting if you can't get it out right away and plan to come back within a day or two.
 - Range Riders and Herders: Can be effective over larger areas.
 - Livestock Guard Dogs: Can be effective.
 - People and Carnivores is hosting 2 LGD workshops next week. *For more information, see attached flier.*
 - There are 2 types of LGDs:
 - Tenders: stick with livestock

- Roamers: patrol larger area
 - LGDs don't go out to attack and kill predators; they bond with livestock and use escalating aggression to scare predators away.
 - Livestock Guard Animals (llamas, donkeys) can also be effective, but not as effective as LGDs and range riders.
- Carcass Management Programs:
 - People and Carnivores worked with BHWC on developing our compost site. They provided fencing.
 - Bears will key in on and remember locations of boneyards and they are the first place they'll visit after hibernation.
 - Feeding on boneyards doesn't necessarily lead to depredation, but it draws predators in and makes them more comfortable on livestock producers' properties. It also gives them a large protein pulse, which boosts predator populations across the landscape. The more people who participate in the carcass removal program, the more effective it will be.
- Garbage – residential: People and Carnivores provides bear-resistant garbage cans to conservation groups and landowners. People and Carnivores has distributed ~60 bear-resistant garbage cans to residents in the Big Hole watershed through BHWC in the last 2 years.
- Garbage – refuse sites: Also can draw in predators, especially grizzly bears. People and Carnivores is working with transfer stations to find solutions
- Backcountry Food Storage: People and Carnivores provides bear-resistant coolers, panniers, etc. to USFS offices to rent out free-of-charge. Also storage containers and bear poles in the backcountry.
- Bear Safety Trainings: What to do in bear encounters, how to effectively use bear spray.
- Public Workshops
- Manuals and Guides
 - Videos on People and Carnivores website
- *Discussion:*
 - *Would the Critter Gitter help our range rider prevent bears from disturbing carcasses until Wildlife Services could come in?*
 - *Yes, especially temporarily it could be effective.*
 - *How much do they cost?*
 - *~\$30 each*
 - *Grizzly Bear critical habitat can shut down land to grazing and other land uses. How important in that habitat?*
 - *It's important for them to have a variety of food sources and areas to move through. It's hard to answer that question in terms of how roads, etc. can effect bears. Bears are thriving in open prairie grasslands, making it difficult to answer what is bear habitat. I think we'll see them moving out and down into valley bottoms more and expanding their territories. Populations are growing tougher, which is good because part of the reason they are listed is because those two populations are separated. But the expansion will cause issues.*
 - *People and Carnivores has been very helpful in a lot of different ways. The large carnivores get all the press – are you doing any work with large corvids and eagles? I've had problems with ravens and bald eagles – they've been particularly bad this winter.*
 - *I'm interested in preventing losses no matter what's causing them. We are working with producers on reducing those conflicts and coming up with ways to work with eagles. This will require creative solutions. LGDs can sometimes be effective at preventing predation by birds.*
 - *Are there automated pepper spray devices?*
 - *They've been tried and were temporarily effective, but they are not widely used.*
- If anyone is interested in talking to Kim about fladry, electric fences, etc., please get in touch with her. She can help with design, building fencing, finding funding, etc. She will also loan out scare devices if people want to test them out. Kim can be reached by email at kjohnston@peopleandcarnivores.org or by phone at (406) 599-9424.

Upcoming Meetings

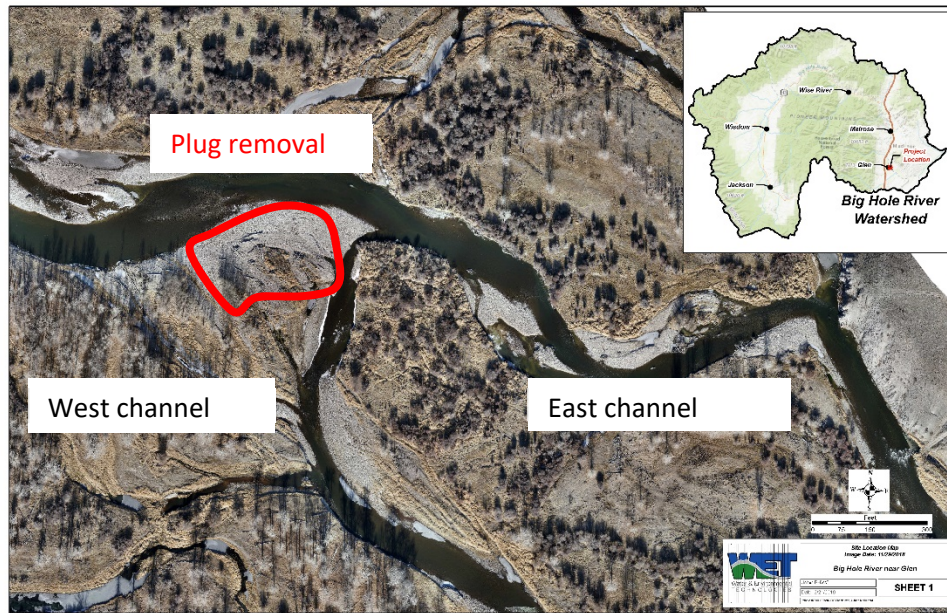
- April 17, 2019, 7-9pm @ the Divide Grange – BHWC Monthly Meeting. *Topic: Invasive Weeds in the Big Hole Watershed. Presented by representatives from local counties, state & federal agencies, and private companies.*
- May 15, 2019, 7-9pm @ the Divide Grange – BHWC Monthly Meeting. *Topic: Big Hole Watershed Fishery Update. Presented by Jim Olsen, Montana Fish, Wildlife and Parks.*

Adjourn

Lower Big Hole River- Burma Road Side Channel Project

Summary

The easternmost side channel of the Big Hole River below Glen has been taking on more water in recent years. A natural channel plug has been increasing in size and by winter 2019, most of the flow of the river is in this side channel, leaving the main western stem nearly dry. The immediate solution this project proposes is to excavate cobbles and logs from the plug and return a majority of the river flow back to the main western stem. Proposal is to excavate materials in April as soon as conditions allow and before high water.



Concerns

- The two Burma road bridges were not designed for the amount of flow projected for this spring. Last spring's high water event tested the infrastructure and downstream banks and an electric pole had to be moved back from a failing bank.
- Excessive high water will overwhelm an irrigation diversion and increases the risk of a channel avulsion that could threaten ag land
- MFWP Fishing access site was nearly dry last fall. Big problems for anglers

Needs

- We are looking to piece together contributions to pay for contractor costs to remove this plug within the next two months, before high water begins
- Tax-deductible donations can be made to the BHWC
- Total estimated costs of construction are \$75,000.00

Support

- Project has support from all downstream landowners; two counties; and MFWP
- 310 permits have been secured
- High resolution drone imagery has been contracted to provide construction estimate



BIG HOLE
WATERSHED COMMITTEE
Conservation Through Consensus.

Livestock Carcass Removal Offered Free March – May 2019

CALL TO MAKE ARRANGEMENTS

**For carcass removal, contact John Costa,
Wildlife Programs Technician: (209) 628-2225**

***For more information, contact Tana Nulph,
Associate Director: (406) 267-3421 or tnulph@bhwc.org***

Carcasses will be hauled to BHWC's Carcass Compost Facility near Wisdom. If you'd prefer to drop off carcasses, make arrangements with John ahead of time. The purpose of our carcass removal & composting programs is to reduce the risk of livestock depredation by removing predator attractant from the landscape during times of higher mortality, like calving.

All information regarding livestock mortality is kept confidential.

Big Hole Watershed Committee

Upper Big Hole Range Rider 2018 Program Summary



BIG HOLE
WATERSHED COMMITTEE
Conservation Through Consensus.

Introduction

Predator-livestock conflict is an issue of concern for livestock producers in the Upper Big Hole Valley. Wolf activity has increased in the area in past years and there have been a number confirmed wolf depredations. Confirmation of wolf kills has been inadequate due to a lack of human presence on the landscape on remote summer grazing allotments. To address this issue, the Big Hole Watershed Committee (BHWC) collaborated with the Wildlife Conservation Society, Montana Fish, Wildlife and Parks, and People and Carnivores to create the Upper Big Hole Range Rider program in 2011. The Range Rider program addresses predator conflict via non-lethal methods by providing increased human presence on the range, detecting developing problems quickly, facilitating timely investigation of injured or dead livestock, increasing knowledge of predator activity on the range, and monitoring overall rangeland health. When the rider observes a potential livestock depredation, he notifies the livestock producer, Montana Fish, Wildlife and Parks, and the United States Department of Agriculture's Wildlife Services. Since 2011, the Upper Big Hole Range Rider has been Chet Robertson, resident of Jackson, Montana.

Participants

Eight livestock producers participated in the Range Rider program in 2018. Allotments monitored included Sheep Creek, Woody Warm Springs C&H, Twin Lakes C&H, Monument C&H, Pioneer C&H, Saginaw C&H, and Big Swamp Creek. These are United States Forest Service allotments with the exception of Big Swamp Creek, which is a BLM allotment; they are leased by local ranchers for summer grazing.

Goals

The goal of the Range Rider program is to prevent predator-livestock conflict using non-lethal methods. Objectives in place to achieve this goal are listed as follows:

- ❖ Increase human presence on the range;
- ❖ Monitor livestock grazing on summer allotments;
- ❖ Report dead or injured livestock immediately for prompt doctoring by livestock producers or confirmation of depredation and subsequent reimbursement of loss to livestock producers;
- ❖ Observe wolf presence on participating allotments via sightings on game cameras and observation of tracks and scat;
- ❖ Interrupt predator/livestock interactions using lethal or nonlethal methods as per state and federal regulations; and
- ❖ Observe grazing conditions for a healthy rangeland.



Methods

Robertson patrolled the seven participating allotments 5-6 days per week throughout the months of July, August, and September by horse, on-foot, and using an ATV. Robertson kept a daily log of his activities, observations, and allotments visited. He took special note of animal tracks and cattle behavior, and he checked six game cameras weekly. His protocol in case of a predator on the range or dead livestock included immediate notification of first the livestock producer, Montana Fish, Wildlife and Parks, and USDA Wildlife Services.

Grazing Allotments Monitored

- Big Swamp Creek: 1,800 acres
- Twin Lakes: 27,600 acres
- Monument: 34,100 acres
- Pioneer: 37,400 acres
- Saginaw: 22,000 acres
- Woody-Warm Springs: 26,000 acres
- Sheep Creek: 28,000 acres
 - **Total Estimated Acres Monitored:**
176,900



Results

This was an eventful year for the Upper Big Hole Range Rider program. Robertson helped identify wolf kills, obtained brand-new equipment, provided interviews to local media, and encountered wildlife head-on in the forest. Robertson spent 3 months patrolling the allotments, during which time he identified wolf, lion, and black bear tracks on several occasions. Visual sightings and photos taken by game cameras confirmed the presence of these predators. Robertson also observed deer, elk, grouse, and a variety of other wildlife species in 2018. No grizzly bear presence was confirmed on enrolled allotments during the 2018 season.



In mid-August on one of his patrols, Robertson had an in-person encounter with a wolf in the forest, a rarity in his 8 years of riding the range. To keep the wolf wary of humans, Robertson yelled and fired a warning shot, scaring the wolf away into the timber.

On the very same day (and only about 1/4 miles from where he saw the wolf), Robertson found an injured calf laying alone. He approached the calf, and when it made no move to rise and appeared to be in poor condition, he called the owner and Graeme McDougal with Wildlife Services. By the next morning, the calf was dead and had been disemboweled. The carcass was wrapped in a tarp and interred at the owner's ranch, and upon inspection by Wildlife Services, it was confirmed to be a wolf kill. Robertson helped McDougal perform a

necropsy on the calf and learned, in detail, how to identify a wolf kill. The rancher was reimbursed for his loss.

A few days later, McDougal removed two adult wolves from the area, suspecting that one or both were the culprits of the dead calf. Four pups were also spotted, but evaded capture. Neither of the two wolves killed were the mother of the pups, and after this removal, no further predation occurred in the area. Although the goal of this program is to provide nonlethal predator management alternatives, BHCW recognizes that problem animals that have developed bad habits must sometimes be removed lethally to prevent additional livestock losses.

A few weeks later on another allotment, Robertson found a calf carcass that he suspected was also a wolf-



kill, but despite his best efforts to cover and preserve the carcass for later inspection, it was drug off and eaten by a bear, preventing any possible confirmation.

Finally, Robertson met with Montana Standard reporters in the Beaverhead-Deer Lodge National Forest to explain the importance and mechanics of our Range Rider program. To view that article, click the following link or type it into your web browser: https://mtstandard.com/news/local/big-hole-range-rider-tracks-wolves-toward-middle-ground/article_0ff4ac6d-5311-5e8c-8ad5-f151fd17fd4c.html.



Funding

In 2018, the Upper Big Hole Range Rider program was funded through grants provided by the Vital Ground Foundation (\$7,500) and the National Fish and Wildlife (NFWF) Foundation. BHWC was awarded \$15,000 in NFWF funding as part of a joint effort among conservation groups in Western Montana to build capacity to reduce livestock/wildlife conflict. Of the \$15,000 awarded to BHWC, \$9,129.59 supported the Upper Big Hole Range Rider program. Range rider funding in 2018 totaled \$16,629.59.

Future of the Range Rider Program

Wolves and other predators have established their presence on Southwest Montana's landscape. The Range Rider program provides an effective, non-lethal alternative for interacting with these potentially formidable predators. BHWC will continue to support the Range Rider program as long as funding is available and the producers and committee members find it to be a worthwhile project.

About BHWC

Established in 1995, BHWC is a watershed group and a central hub of diverse viewpoints on resource and community concerns. BHWC is a consensus-based organization dedicated to conservation of the Big Hole River and surrounding watershed. Our work is comprehensive, spanning floodplains, communities, wildlife, water, and fisheries. We provide education, facilitate conversations and planning for issues in our area, and put meaningful restoration work on the ground.

The Big Hole River valley is a high elevation basin at the headwaters of the Upper Missouri River. The watershed is characterized by open lands, big sky and big mountains, free flowing river, and traditional ranching culture. Unlike most other watersheds in the West, our area remains relatively undeveloped. It is of the utmost importance to preserve the quality of the river and its watershed in order to:

- Maintain and enhance the quality of life for residents and visitors;
- Protect the river, wildlife, and habitat for future generations, including adapting for climatic resiliency; and
- Be a model of restoration, recovery, and stewardship.

BHWC is composed of a Governing Board that represents diverse interests including: ranching, utilities, local government, sportsmen, conservationists, tourism, and outfitters. Representatives from local, state, and federal agencies participate as technical advisors.

Big Hole Watershed Committee

Carcass Removal & Composting

2018 Program Summary



Introduction

Predator-livestock conflict is an issue of concern for livestock producers in the Upper Big Hole Valley. Wolf activity has increased in the area and there have been a number confirmed wolf depredations in past years. Confirmation of wolf kills has been inadequate due to a lack of human presence on the landscape on remote summer grazing allotments. To address this issue, the Big Hole Watershed Committee (BHWC) collaborated with the Wildlife Conservation Society, Montana Fish, Wildlife and Parks, and People and Carnivores to create the Upper Big Hole Livestock Carcass Removal and Composting program in 2015. The purpose of this program is to remove potential predator attractants that can increase encounter rates and risks of depredation by removing carcasses from local ranches and transporting them to our livestock carcass compost facility.

Goals

The goal of the Carcass Removal and Composting program is to prevent predator-livestock conflict using non-lethal methods. The carcass removal program meets this goal by removing livestock carcass attractants from the landscape during periods of heavy mortality (e.g. calving and weaning), thus reducing the likelihood of predators visiting dead pits on ranches and potentially preying on live cattle, sheep, or other animals.

Methods

BHWC hired Johnathan Costa as Wildlife Programs Technician in the fall of 2017, and John drove the carcass removal dump truck during the 2018 season. The dump truck was loaned to BHWC free-of-charge by the United States Fish and Wildlife Service's (USFWS) Red Rock Lakes National Wildlife Refuge, who also provided fuel for the dump truck. John drove the dump truck to local ranches during spring calving (March 12 – May 18), where he picked up livestock carcasses upon request.

Carcasses were transported to BHWC's Upper Big Hole Carcass Compost Facility, also managed by John. Once at the compost site, carcasses were broken down into minimal amounts of compost using wood chips, manure, and water. John regularly checked compost pile temperatures and turned compost piles every 45-90 days.

Carcass drop off was also permitted with prior arrangement made with John to accept and cover the carcasses.



The compost site was opened in 2017 and is located next to the Montana Department of Transportation's maintenance shop outside of Wisdom, Montana. Permanent and electric fencing was provided and installed by People and Carnivores. Funding to construct the site was provided by the Montana Department of Livestock's Livestock Loss Board.

Results

The 2018 carcass removal season ran from March 12th to May 18th.

- Ranches participating: 8
- Carcasses removed: 49
 - 31 adult cattle

- 16 calves
- 2 sheep
- Acres of ranches served: 15,900

Funding

In 2018, the carcass removal and composting program was funded through a grant provided by the Montana Department of Livestock's Livestock Loss Board in the amount of \$10,000. BHWC was required to provide a 50% cost-share for the grant, which came from an in-kind (i.e. non-monetary) donation in the form of the use of heavy equipment to manage the Upper Big Hole Carcass Compost Facility, provided by a local rancher.

Future of the Carcass Removal & Composting Program

Wolves, bears, and other predators have established their presence on Southwest Montana's landscape. BHWC's Carcass Removal and Composting program provides an effective, non-lethal alternative method to prevent predators from engaging in conflict with working ranches and from developing habits that would result in the need for lethal control. BHWC will continue to support the Carcass Removal and Composting program as long as funding is available and the producers and committee members find it to be a worthwhile project.



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Big Hole Watershed Committee

Bear Safety

2018 Program Summary



BIG HOLE
WATERSHED COMMITTEE
Conservation Through Consensus.

Introduction

The Big Hole Valley is home to several black bears, and in recent years, confirmed instances of grizzly bear presence in the watershed have increased. In 2016, a grizzly bear was photographed crossing a stream in the Upper Big Hole by one of the Big Hole Watershed Committee's (BHWC) range rider game cameras. Shortly after, two bow hunters were forced to surrender an elk they had shot to a grizzly bear in the Upper Big Hole. This year, Montana Fish, Wildlife and Parks confirmed the presence of yet another grizzly bear in the watershed near Seymour Creek. Residents often report grizzly bear sightings, although these are rarely confirmed by Montana Fish, Wildlife and Parks.



In response to the increased presence of grizzly bears in our watershed, as well as a large population of black bears, BHWC has implemented a bear safety awareness program.

Goals

The goal of the bear safety awareness program is to increase resident's and recreationist's awareness of the presence of bears as well as best practices for bear safety to prevent conflicts that could result in injuries or fatalities to humans and lethal management of bears.

Methods

Each year, BHWC provides at least one bear safety awareness training, with a presentation by the Southwest Montana Bear Education Working Group. Participants are taught how to tell the difference between grizzly bears and black bears, how to avoid conflict with bears, and how to react during different types of encounters with bears. Participants also have the chance to win free cans of bear spray and ask questions regarding bear safety.

In addition to the bear safety awareness trainings, BHWC provides bear-resistant garbage cans to Big Hole Valley residents free-of-charge. The garbage cans were donated to BHWC by People and Carnivores and housed at the Wise River Ranger Station, where they were available to be picked up by residents upon request. Garbage cans were also delivered to residents by BHWC's Conservation Programs Coordinator, Tana Nulph. Properly securing trash helps prevent bears from developing problematic habits, getting into trouble, and encountering humans.

Results

In 2018, BHWC provided one bear safety awareness training, held October 17th at the Divide Grange. The training was attended by five participants and four cans of bear spray were given out as prizes. BHWC also distributed 58 bear-resistant garbage cans to Big Hole residents and businesses in 2017 and 2018.



Funding

In 2018, funding for the bear safety awareness program was provided by a National Fish and Wildlife Foundation (NFWF) grant.

Future of the Bear Safety Program

Black bears have established their presence on Southwest Montana's landscape, and grizzly bears will continue to move through the Big Hole watershed and potentially establish territory here. The Bear Safety program helps inform residents and recreationists regarding best practices for interacting with these potentially formidable predators, thereby protecting humans from harm and bears from lethal management. BHWC will continue to support the Bear Safety program as long as funding is available.



Future plans include securing additional bear-resistant garbage cans from People and Carnivores and conducting additional planning to achieve higher attendance at bear safety awareness trainings, possibly by trying different dates or venues for the events.

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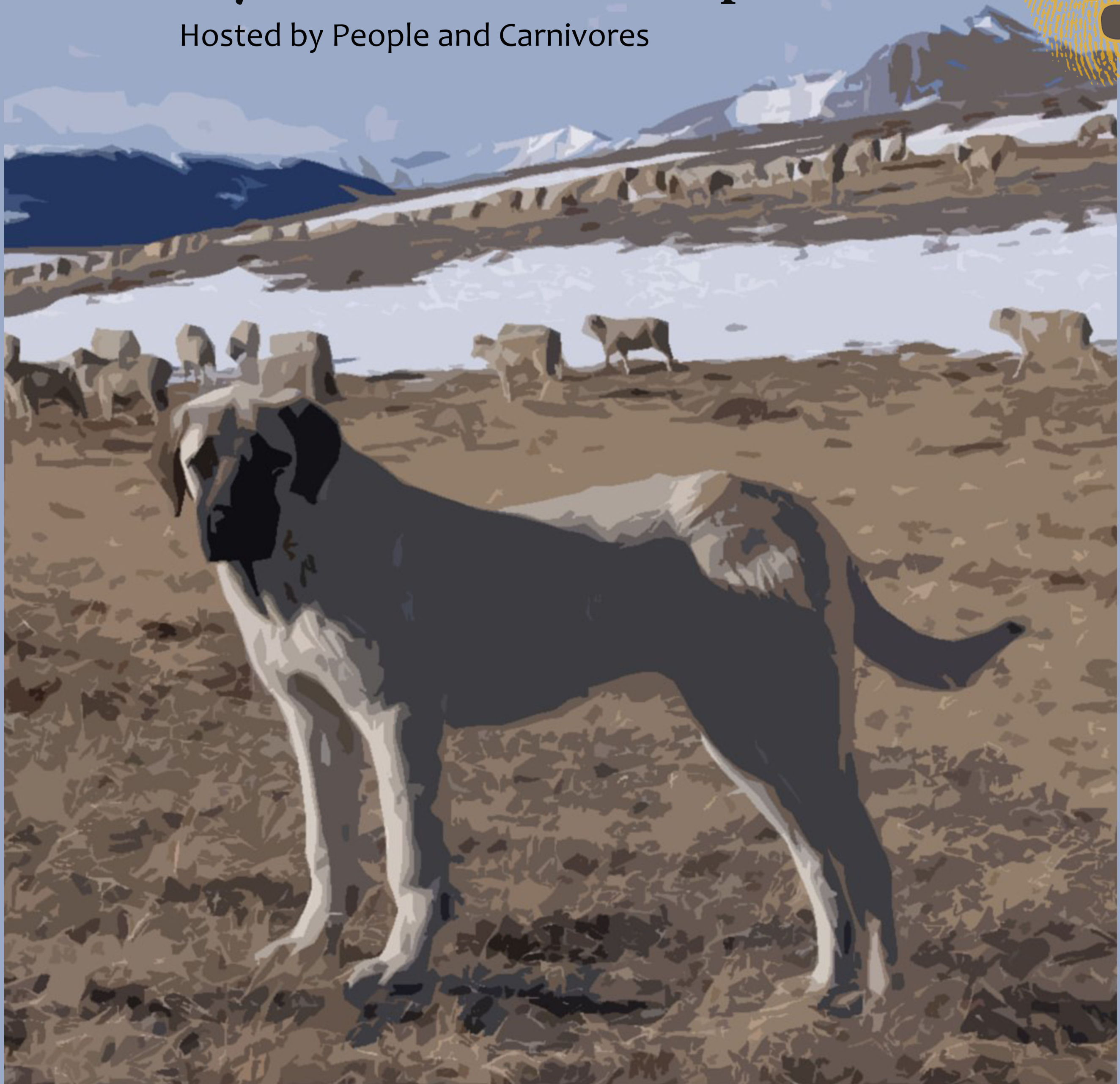
- Maintain and enhance the quality of life for residents and visitors;
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Livestock Guard Dogs

and other ways to reduce losses to predators

Hosted by People and Carnivores



Come join us!

MARCH 27 ALDER

Alder Firehall 11:00-3:00

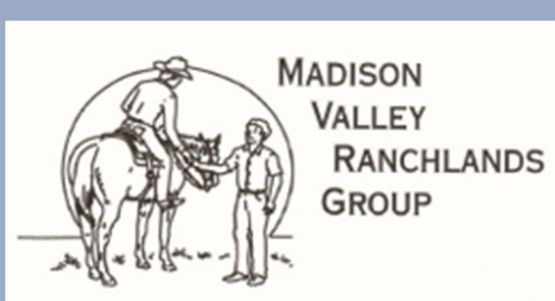
MARCH 28 DILLON

Old Depot Theatre 11:00-3:00

For more information, contact
Kim Johnston at (406) 599-9424

Come join us to discuss Livestock Guard Dogs and other proactive measures to reduce livestock losses to predators.

We will be discussing ranching among carnivores and how the use of LGDs and a method of 'layering of dogs' has been effective at reducing conflicts. You'll have a chance to see and learn about 4 different breeds of dogs and see puppies in training.



PRESENTATIONS 11:00 | FREE LUNCH 12:30
Open Forum discussion 1:00 - 3:00

