



U.S. Department of the Interior
Bureau of Land Management

NATIONAL WILD
HORSE & BURRO
ADVISORY BOARD

December 13-14, 2023

Volume 1

Day 1 Meeting Minutes

U. S. Department of the Interior
Bureau of Land Management

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Wednesday, December 13, 2023

Welcome and Call to Order

Bryant Kuechle, Facilitator, The Langdon Group

Mr. Kuechle welcomed attendees to the Wild Horse and Burro Advisory Board meeting and introduced himself and his role as a neutral third-party facilitator.

Ms. Celeste Carlisle, Wild Horse and Burro Advisory Board Chair

Ms. Carlisle welcomed the Advisory Board members (Table 1). She called the meeting to order. The members of the Board then introduced themselves.

TABLE 1 - NATIONAL WILD HORSE & BURRO ADVISORY BOARD MEMBERS	
Board Member	Representing
Dr. Ursula Bechert, DVM, PhD	Wild Horse & Burro Research
Ms. Celeste Carlisle	Wild Horse & Burro Advocacy
Commissioner James French	Natural Resource Management
Commissioner Varlin Higbee	Livestock Management
Dr. Gwenllian Iacona, PhD	Wildlife Management
Dr. Tom Lenz, DVM	Veterinary Medicine
Ms. Susan McAlpine	Humane Advocacy
Commissioner Tammy Pearson	Public Interest (Equine Behavior)
Dr. Barry Perryman, PhD	Public Interest (NRM Special Knowledge)

BLM Designated Federal Official Remarks

Mr. Kuechle thanked the board and then introduced the BLM Assistant Director for Resources and Planning, Mr. Sharif Branham, as the designated Federal Official for the BLM and U.S. Forest Service meeting.

Mr. Sharif Branham, Assistant Director for Resources and Planning, BLM

Mr. Branham: Thank you. Good morning, everyone, and welcome to those in the room listening remotely. Let me start by introducing myself. My name is Sharif Branham, and I am the BLM Assistant Director for Resources and Planning, as well as the designated federal official for the board. I apologize for not being able to be there in person today, but I look forward to meeting you all soon.

The Wild Horse and Burro Advisory Board provides advice and recommendations to the Bureau of Land Management and the U.S. Forest Service as the agencies work to fulfill their responsibilities under the 1971 Wild Free-Roaming Horses and Burros Act. The act mandates the protection and management of free-roaming horses and burros in a manner that promotes a thriving natural ecological balance on public lands. Your keen attention, advice, and recommendations to help us fulfill our mission has never been more critical. I am sure you all will discuss over the next few days the Wild Horse and Burro Program is at a crossroads. Though progress was made to reduce the overpopulation in recent years, herds remain at a heightened risk of starvation and thirst, especially when drought conditions return because populations are three times the size that is healthy and sustainable for the animals and the land.

With more than 82,000 wild horses and burros on BLM-managed lands, we also remain perilously close to a tipping point beyond which it becomes increasingly difficult or impossible for the BLM to prevent runaway population growth. According to our estimates, if the total herd size exceeds 100,000 animals, our current capacity for gathering and

removing animals will not be sufficient to control growth. In other words, births will outnumber the maximum number of removals we could perform in a year. This would lead to runaway population growth, potentially resulting in a population crash—an outcome I believe everyone here would like to avoid.

I encourage everyone here to come to the table in the spirit of collaboration. I truly believe that teamwork and partnership will be the cornerstones of our success. Look around you; each person here is a vital piece of the puzzle. Their strengths and expertise complement one another, creating a synergy that can propel us forward with new ideas and renewed vigor.

Let us venture beyond boundaries and embrace your creativity. Those ideas that have seemed impossible might just be the key to our next breakthrough. Innovations thrive on daring to explore the unexplored, on stepping outside conventional paths. We look forward to exploring what is possible.

Please be mindful and respectful of each other's viewpoints. Remember, we are all here for the benefit of the animals and the land. We share the desire to succeed. In conclusion, I look forward to working with the board over the next couple of days on pressing issues facing the Wild Horse and Burros on public lands and hearing your recommendations. With that, I will turn it over to you, Celeste.

Ms. Carlisle thanked the Assistant Director and turned the conversation back to Mr. Kuechle to facilitate administrative updates and further introductions.

Patti Klein, Acting Division Chief for the National Training Center, BLM

Ms. Klein: Morning, everyone. Welcome to the National Training Center and the Wild Horse and Burro Advisory Board meeting. My name is Patti Klein. I am the acting division chief for the National Training Center. And I am happy to host all of you at our training center facility this week in sunny Arizona. I would also like to acknowledge Udom Hong, who is our acting branch chief for all the Wild Horse and Burro training for the Bureau. We are here to serve you this week. Please let us know if there is anything we can do to assist you or make you more comfortable. I hope you have a fantastic week, and I will turn the time back over to you.

Mr. Kuechle: Thank you very much. All right, I am going to now turn it over to Holle' Waddell, the Division Chief for the Wild Horse and Burro Program to introduce yourself and your team.

Holle' Waddell, Division Chief of the Wild Horse and Burro Program, BLM

Ms. Waddell: Thank you, Bryant. And again, good morning, everyone. My name is Holle' Waddell and I am the division chief for the Wild Horse and Burro Program. And I just wanted to thank the board again, thank you, Celeste, for your introductions of the board. Thank you, board, for being here and thank you everyone else in the room and online. I will just start off with introducing the deputy assistant director, Brian St George. He is here in the room. We also have our deputy division Chiefs, Paul McGuire for off-range, and Scott Fluer for on-range. Dorothea Boothe, who is our coordinator. Thank you, Dorothea, for all your work. I am always going to thank you.

Zachary Seeger, he is new to our team and a NEPA specialist. Serena Camacho, thank you for your coordination and work. She is our admin assistant. Jason Lutterman who is our public affairs and outreach specialist. John Hall, who is the Arizona wild horse and burro state lead, and you probably saw him yesterday on the tour. Great job. Dr. Paul Griffin, who is our research specialist.

And again, we have the Arizona Deputy State Director, Jerry Davis in the room. Thank you. And online, I'm not sure if she's online yet, but we do have Jerri Bertola who is our comprehensive animal welfare program specialist. And if she's not online now, she will be joining us later. Thank you.

Mr. Kuechle: Thank you, Holle'. I want to turn over to Charles Oliver with U.S. Forest Service to introduce himself and his team.

Mr. Oliver: All right, thank you very much. Charles Oliver. I am the deputy director for the forest management, range management and vegetation ecology program area with the U.S. Forest Service in Washington DC. And we have the Wild Horse and Burro Program under our purview. I have here with me today from the Washington office, also assistant director, Eric Davis, and our national Wild Horse and Burro Program manager, Dr. Teresa Drotar. Thank you.

Meeting Public Participation Protocol

Mr. Kuechle reviewed the procedural elements for public participation, stating that the BLM recognizes the value of public input and appreciates public interest in expressing themselves regarding matters of concern. He explained the process for registering to provide public comment, noting that there would be two designated opportunities to do so. Mr. Kuechle reviewed the day's agenda.

Welcome Remarks from BLM Arizona

Jerry Davis, Arizona Deputy State Director, and John Hall, Wild Horse and Burro Program State Lead

Mr. Davis: Thank you and good morning. Thank you to the board, to Holle' and all the headquarters Wild Horses and Burro program staff for inviting us to come and welcome you to Phoenix. As Sharif mentioned, the program faces many challenges, but there are many opportunities. And it's definitely going to take all of us to do what is right and what needs to be done for the management of the species as well as the habitat as a whole.

As John will cover here in a little bit, Arizona is a couple of years into the execution of a strategic plan that we developed with the support of the Headquarters BLM staff and program. And we're starting to make really important strides towards getting the species to where it needs to be for the management of all the resources on the public lands. And we have enjoyed great success and support with the public as well as all of our stakeholders on public lands.

Thank you. Welcome to Phoenix and look forward to engaging with the committee, the advisory board today, and hearing all the important work that you have in front of you. Thank you.

Ms. Carlisle: Sorry about that. Thank you very much. Appreciate that. John, I think we're moving to you next for further introduction about the program. Go right ahead, introduce yourself.

Mr. Hall: Good morning. My name is John Hall. I am the Wild Horse and Burro lead for Arizona. I am also the facility manager at the Florence Prison Wild Horse and Burro Training and Holding facility. I'll be talking to you today about Arizona and just some updates of currently what's going on. The Arizona Wild Horse and Burro team is made up of two horse and burro specialist, one dual hat, which is my position, the lead and also the Florence facility manager. And we also have one staff assistant. In Arizona we have two facilities. One is an off-range crowd, which is located in Florence. We also have our facility in Kingman, which is a staging facility that we use during gathers to house animals for short term. We also have a satellite adoption team in Arizona, which is made up of Horse and Burro employees. And then also we have some other volunteers in BLM that help us out at those events.

I'm going to talk a little bit about wild horses and burros in Arizona and where they exist and how we manage them. The majority of our burros really are along the Colorado River corridor. We do have some other animals that are here in Lake Pleasant as you saw yesterday during our tour. We have six HMAs in Arizona and 11 HAs. Most of those HAs are just immediately surrounding the HMAs. The current estimate as of March 1st in 2023 was 5,492 animals. There's 5,027 wild burros and 465 wild horses. In FY22 we removed about 1,297. In FY23 we removed so far about 756 animals. Our current AML in Arizona is 1,676 animals total.

We spoke yesterday about drought and the current condition that we have here in the general area of Phoenix. And this map is from October of 2023. But the current map, I pulled it up last night, looks fairly similar. In Arizona we're not in too bad of a dry condition right now, but that changes throughout time and it's a management problem that we have to deal with almost on a yearly basis.

As Jerry mentioned, we worked on a strategic plan for basically the next 10 years to set up, reestablish if need be AML ranges for all the areas that we manage, and also to plan how we're going to move forward with getting those areas to AML. We started with the Black Mountains, we'll be then moving over to the Three Rivers and then Cibola-Trigo, Lake Pleasant, so on and so on.

What we did with this plan is we will start with large scale gathers in the beginning in order to get to or near AML, and then we will use periodic small in-house gathers once we do get to AML. This strategy also pointed out that we needed some additional help. We were able to get some positions that we are still currently trying to fill one of them. And we also were able to get some help from outside when it comes to the GS-11 position that we filled in Florence basically, in Phoenix.

I'm going to talk about the HMAs first. The Black Mountain HMA is our largest HMA. It's about 1.1 million acres. It's a very rugged terrain and the AML is approximately 478. It's located near Kingman, Arizona along the Colorado River.

As I mentioned before, we were starting with the Black Mountain for the actual strategy. And we gathered approximately 1,100 head of burros in 2022. We had nine females that we captured during that gather that were part of the HSUS project that we treated with PZP and released back to the areas where we gathered them. During this gather, we had no deaths. There was no significant events that occurred, so we felt that it was a very successful gather. And it was the largest burro gather in Arizona history.

We came back in October and April 2023 and bait trapped. We were planning on bait trapping approximately 700 wild burros. We ended up only catching 539 just due to environmental conditions at the time. We had a very wet winter last year. And so, the animals were difficult to locate and trap. During that gather, we caught nine females that were part of the HSUS project. They were treated and re-released just like they were during the helicopter gather.

We have an upcoming gather for Black Mountain. It's going to start January 9th. We are planning on gathering 1,000 burros, removing up to about 900. This is going to be a difficult gather just because we have been in the Blacks for the last three years, basically gathering animals. And if we do catch any of the females that are part of the HSUS project, we will treat them. So, we could catch up to 100 females. We will be completing a population survey after that gather so that we can really figure out if we're nearing AML like we hope.

Cibola-Trigo is located in southwest Arizona. It's near Yuma, Arizona. The HMA is approximately 179,000 acres, and the AML is approximately 165. The interesting thing about the Cibola-Trigo HMA is that it is bordered by Fish and Wildlife Service land; and in order for us to remove animals on large portions of the HMA, we actually have to remove them by boat, and so that is the picture of burros on a boat.

Lake Pleasant is the HMA that I gave you all a tour of yesterday. It's located 25 miles northwest of Phoenix. It's approximately 103,000 acres. It's very rugged as you can see when we were actually in the field yesterday; and the vegetation is typical of the Sonoran Desert, Palo Verde, there's lots of Catclaw Acacia as we saw in the wash last night or yesterday.

Currently we have the Horse and Burro specialist at the state office. That was Eric Duarte, you met him yesterday as well. He's in the process of revising the AML and working on a new herd management area plan so that we can move forward with a tenure plan for that HMA as well.

Three Rivers, that's the Big Sandy, the Havasu and Alamo HMAs. Combined, they are approximately a million acres. We just put together and put out to the public a tenure management plan for those three HMAs. We've received public

comments. We're in the process of addressing those comments. We're hoping to have a finalized decision out somewhere around the beginning of the year. The combined AML for Three Rivers is 372 to 465 animals.

Just to go back, this is again our map that shows the HMAs in Arizona. We typically adopt or sell about 700 animals a year. This is due to a combination of satellite events, what was formerly the Trainer Incentive Program, direct sales to individuals and organizations, and then also just straight from Florence itself. We typically do about five to 10 events at Florence every year. We also will do satellite events. We'll typically do two to five depending on the year where we go across the state.

One of the unique things about our facility in Florence, and you'll see this tomorrow, is that we have the ability to utilize the University of Arizona for our veterinary care and medicine. The prison itself has an agreement with the university, so it allows us to have students assist with ordinary procedures as well as boosters and vaccines. And every year, in around April to June timeframe, we'll have 12 students at the facility three days a week for basically the whole day. Any type of procedures that need to be done can be done under the care of a veterinarian with the students, they're on hand to help. It gives a really unique experience for them because most veterinary students would never be able to spend that much time working large equine in this type of environment.

We also, up until recently, the Trainer Incentive program was a huge part of our placements in Arizona. There's some pictures here I'm going to show you from a TIP challenge, which was youth. They picked these burros up from us in Florence and had them, I think it was about 60 days for this one. And these kids really did an awesome job. And you can see that the yearling burro that this young girl had was very well trained. Just some more pictures of that great program.

We also allowed them to pick up some yearling horses as well. Some of the other trainers were able to do pretty good with those yearling horses. As I mentioned, we have our Florence facility. As part of that facility, we have an inmate training program. We typically place about 50 to 75 animals a year, through that training program. They will have the animals typically about four to six months while during that timeframe, they're training them to do all of your basic gentling, plus they'll also have them under saddle. A typical wild horse that comes from our training program has somewhere between 25 and 50 rides on it by the time we're ready to actually allow the public to adopt or purchase them.

Another unique partnership that we have is with Peaceful Valley Donkey Rescue. We've been approved to sell 3,000 wild burros to them over the next five years. Over the last three years, we've sold them about 1,500 burros. They've been very successful in placing those animals. And according to their website, they have placed approximately 9,200 burros into homes over the last 20 years. We look forward to continuing that partnership.

Some of our big management challenges in Arizona are overpopulation across the state. Basically, every HMA is over AML. We're about three and a half times over our statewide AML. I showed you that map of the drought. I know that currently we're not in too bad of a shape, but across all of our HMAs water is an issue. Access to water and just availability of water.

We also have program-wide budget limitations. I think we all know about those. It limits our ability to achieve our priorities of actually achieving AML. We also have a large increase of private property that is occurring around the greater Phoenix area especially. I know I spoke to all of you yesterday quite a bit about the human interactions that we're having with those burros and new neighborhoods that are popping up. Vehicle collisions are a major problem for us. And it's something that we have to deal with on a daily basis at this point. I know yesterday we saw some burros right along the side of the road as we were coming in. And this is to show you what tends to happen with burros. If you stop on the side of the road in Lake Pleasant and they approach you and you roll down your window, they will stick their head in your vehicle. The problem is that this burro has now been habituated to being fed from a truck window. That's where we have these major problems with collisions is once they get into this habit, it's pretty much unstoppable that they're going to stand in the road. Does anyone have any questions?

Discussion

Ms. Carlisle: Thank you, John. I think the entire board appreciates that burros are oftentimes an afterthought. I think for all of us. I'm not pointing towards anyone. We think of wild horses and burros. And it has been really fantastic to dig into the burro issues, which are different than the horse issues.

I'm going to start, and then for those of you that are newer on the board, I will try to have my head on a swivel and make sure folks are called. But you're welcome to poke your neighbor to poke at me if I'm not noticing you. But to start with, I'm really interested in the 12 students a day that you have coming to the Florence facility. I know other universities and other extension organizations are interested in how to partner with BLM and set up similar types of situations. So, if you could talk a little bit about how that agreement was put into place, that would be great.

Mr. Hall: So, the university does not have an agreement directly with the BLM. The university has an agreement with the prison. Through the prison contract. They're required to provide veterinary care. They chose to utilize the university as their sole veterinarian. They do have the ability to change vets if they'd like. But really as a whole, we really wanted to bring the university in. Their vet school has only been accredited, I think, for about two and a half years now. So, we actually had started working with their vet school before they were an accredited school and we're having students out that were not in their vet school yet. So, we've been a part of the vet school getting accreditation from the beginning and it's been an integral part of their program to allow students to come out there for three days a week. Like I said, 12 to 15 depending on the day. But basically, they're doing their rounds for about three months every year.

Ms. Carlisle: Dr. Lenz?

Dr. Lenz: So, I just returned a week or so ago, I was at the American Association of Equine Practitioners meeting and in the Welfare Committee there was some discussion on a subject that I've never heard of before involving donkeys, and I don't know if you have or not, called the Ejiao gelatin high trade. Have you heard anything about that? You aware of that?

Mr. Hall: I'm familiar with the trade itself.

Dr. Lenz: Yeah, I'm just curious or mainly I want to make sure you all are aware of it because what they told us, is there's about 4.8 million donkeys that have been euthanized around the world and their hides used to produce cosmetic products and Chinese medicine. So, I was mainly concerned that maybe y'all weren't aware of it. It hasn't been an issue in the United States yet that we're aware of, but it potentially could be.

Mr. Hall: Right. I know that it's common practice right now in Australia and also in Africa for those animals, the hides to be utilized for that. To our knowledge here or to my knowledge anyways, it's not an issue in the US as of now. It's definitely something that we're tracking though.

Ms. Carlisle: Ms. McAlpine.

Ms. McAlpine: John, yesterday you took us on a trip that showed us how complex the issue of wild burrow management is here in Arizona. We have federal land, we have state land, we have county land, we have city land, we have private land that the BLM burros tend to travel over. Three o'clock in the morning, my light bulb seems to want to go off all the time, and one of the things that I thought of is that hopefully somewhere along the line partnerships can be made.

There's a lot of interest and angst being spoken by city county leaders. Our state and Arizona State representatives are getting information and voicing concerns about it and so is at least one of our US congressmen, so hopefully, and the public, some of the strings will start to be tied together by the right people in BLM so that these entities stop saying, "What is BLM going to do about the issue?", and start thinking more about Celeste's favorite word: "collaboration" and working together to fund and to help coordinate the efforts that you make as a staff.

Ms. Carlisle: That is my favorite word. All right. I have another question. One of the things that really struck me yesterday was the challenges in particular at Lake Pleasant, which are different than probably most every other place that I'm

thinking of herd management areas exist and territories, though actually some territories are experiencing this as well, that the human interaction with the burros in this case is high. And it's not necessarily folks that are coming just... I mean we have interaction of humans and wild horses and burros in many HMAs. People love to go and see the animals, but this is a different level of interaction with traffic and campgrounds, at county park, inside that area.

And I know that your staff and you were talking yesterday about the extensive outreach that you all are just sort of always engaged with on a day-to-day basis in your interactions with folks. But the ability to have the additional manpower that's needed too, I mean that's in and of itself several positions that I can see. And so, as you all are thinking through your herd management plans, are you adding on any educational components to be able to enhance what you all are able to do? And I'm looking at the list of things that you all are tasked with doing and the number of staff and you all need to do a lot! So just sort of seeing how you all are thinking about that very particular issue.

Mr. Hall: So, we're in contact with communications constantly. I work with, I think Dolores might be here today, but we work with Dolores a lot and we work with our comm staff a lot trying to get the message out there to not feed the animals, to lessen the amount of human interactions with the animals themselves so that we stop having all of these issues at Lake Pleasant in particular. Lake Pleasant isn't unique with human interactions though. I mean we have Oatman in Black Mountain; we have Fisher's Landing in Yuma. Almost all of our HMA's have that same problem. Lake Alamo, same thing. Lake Havasu, same thing. It's kind of across the board. We have burros that become tamed very easily. As soon as you start feeding them, like in that picture before, they will tame down and that's when we start having so many issues.

As part of our strategic plan, we did point out that communication with our partners is going to be something that's very important to help us move forward and to also allow us to share that messaging, "Please stop feeding them." That's what it comes down to, we really have to reach out to some of the people that we maybe have currently not been reaching out to try to achieve that. And so, it's unfortunate, like I said yesterday, that we no longer partner with Mustang Heritage Foundation because the tip trainers did really help us a lot. There was a lot of communication that was put out there through their social media and it's going to be something moving forward that we're just going to have to continue working on.

Mr. Davis: And I'd like to just add on to a little bit what John said towards your comment and Ms. McAlpine's. Collaboration is really going to be key. I mean the BLM Wild Horse and Burro program will likely never have the amount of staff that we need to do everything that we need to do. That's just a reality I think, of government and staffing and funding levels and all of that; but that's okay because we have a lot of really interested, really vested partners, particularly in this program, some more than others, but there are also other programs within the BLM that go towards this mission. So, you mentioned the county park that's out there we also have BLM developed recreation sites adjacent to that area as well. That's an area that we're trying to staff up because we have obviously issued with recreation and what's appropriate on public lands and the management of that.

But by having those park rangers out there interacting with the public, the burros are obviously in the same area. There's additional opportunities for us to engage outside of just the Wild Horse and Burro staff. And so, there's an internal education component being able to provide those individuals with the information so that they can appropriately share it with the public, as well as the efforts that the Wild Horse and Burro program are doing externally and with partners. We do have interface with the city of Peoria. As you could see, the city continues to expand out towards the HMA and further kind of develop up with the new chip plant that's going up out there that's going to be surrounded in residential development eventually. And the district and the field office have a lot of engagement with local partners as well, particularly county and state DOT due to the highways in that area as well. So it's something that's been happening, but it's definitely something that we need to continue doing more of and always be looking for new opportunities. Thank you.

Ms. Carlisle: Commissioner French and then Dr. Perryman and then Dr. Lenz and then Dr. Iacona.

Mr. French: I just want to personally thank you for the time you took to educate us. I've been six years on this board. I spent 30 years plus in North Central Nevada ground zero for the Wild Horse program with regard to the impacts to the Wild Horse program on public lands and wildlife. And I personally, there was quite a few statistics that I wrote down

yesterday on our trip that surprised me to be honest with you. And I just want to back up a little bit. I think the Wild Horse program has, in my view, has always been about horses on public lands and the redheaded stepchild in the whole program was the burro component of that.

And I know Mrs. McAlpine often reminds us that burros are in the act and I felt that a couple of things came up that I was surprised by. I know you folks spoke quite a bit about the upcoming planning program that you're putting together with regard to HMA management and actually updating your work program with regard to trying to get a handle on your population expansions, at least on the HMA that we were involved in yesterday. The one statistic that I was really surprised by was the 100% adoption rate over time. And that's completely unheard of with the wild horse side of it, that's a resource for you.

The other thing that surprised me... and I came to the conclusion on my own after listening most of the day, was that a lot of the management that we have initiated, for instance on the horse program, with regard to assessing impacts has to do with vegetative component, has to do with whether it's a shift in vegetation in its entirety or whether it's over-utilization of certain types of vegetation similar to what we do with allotment management planning and whatnot for livestock use. What I saw yesterday though was a management protocol that is going to be less about whether or not we're seeing vegetation impacts, but more about the impacts of the animals themselves on the surrounding populations of people and environment, whether it be what you pointed out yesterday having to do with the impacts of the burros on recreation areas, impacts of the burros on interstate highways and vehicle collisions with burros.

It appeared to me, that is going to be your indicator is going to be the out migration and pioneering of these critters as they leave the HMA probably from a density perspective. And one of the things that I wondered about, and we talked about it at dinner last night a little bit has to do with the fertility program. And I know you mentioned in your presentation that fertility treatments, I think you said, was going to be a hundred animals, that you were actually going to-

Mr. Hall: Up to a hundred for that.

Mr. French: Up to a hundred that you're thinking about doing. I am wondering about scaling that, depending on whether identifying the fertility control is possible, a real anchor in your program to try to, once you achieve AML or thereabouts, to try to maintain AML in those HMA's.

And I'm just wondering from a long-term perspective what your thoughts are with regard to fertility control. I know there's a lot of questions as to the use of the fertility drugs that are out there right now on burros as opposed to wild horses and I'm sure there's going to be a lot of research work that'll center around that. But it seemed to me that that might be a real tool for you to get to AML and maintaining it, not just because of the fertility, the drugs themselves, but because you seem to have access to the animals, they concentrate in certain areas routinely, they don't avoid people much and they seem to make themselves available with regard to being able to dart or being able to treat with fertility. And I just was wondering what your thoughts were along that line.

Mr. Hall: So currently our population is about half inside the HMA and half outside the HMA. So yes, the animals that are near the lake we actually would have a lot of access to, but we have the wilderness area that's there as well that would be very difficult to access those animals. They're spread out a lot more than you would think. There are other water sources that they have in those mountains. The biggest thing with fertility control is delivery, right? That's going to be the hardest thing for us to do and maybe the animals that are close to the lake, we could have that component and I think that we will have fertility control, I know that we will as part of our management plan, but until we get to AML, until we get to that number where we're comfortable really with our population, it's hard to say exactly what that's going to be when it comes to how we deliver it.

I mean, animals get trap shy very quick. Once you catch them a couple of times, it's really difficult to catch them again, so a remote darting program could be a possibility. We could figure out working with partners to actually have some sort of darting program. But I think there's quite a bit more research that needs to be done with fertility control, with burros in particular. I know we've got the two projects in Arizona. The one project really that we've completed with the Black

Mountains, and then we had our coloring project Lake Pleasant to track animals to see how their movement throughout Lake Pleasant actually occurred throughout the year. So just more research is going to help us a lot and the only way we can do the research is to actually start a program.

So, it is something that is in all of our management plans, it's in all of our EAs, so we're definitely looking forward to using it. There will always be a removal portion though. I don't foresee us having the ability to 100% control population with fertility control because you have breakthroughs, you have animals that still will have babies. So, I think there's always going to be that removal component.

Mr. Davis: And if I could just add to that. So, John mentioned our 10-year strategic plan for burros and horses and burros in Arizona and that we're kind of a two to three years into that plan. So, the plan really, when we constructed that, is broken into two phases.

So, the first phase that we're kind of in the middle of, so the first five years or so is really what we're calling the AML phase and that's where we're working to get all of the HMAs down to that AML. And then the second phase is what we kind of refer to as the maintenance phase. And so, a key component of that maintenance phase and being able to try and manage the wild horse and burro populations within the HMAs within that AML band that's established for each of them is going to be fertility controls, absolutely.

At this point where we're still just so far above AML, it doesn't really make sense resource wise as well as just the time intensity that it takes to actually deliver the boosters and the initial treatments and things like that. To do that is a large part of the program. It's still an important part like you saw in John's presentation, so about maybe 10% of the animals or so. And then of course we're maintaining those as we have the opportunity to, but that'll become a much larger and probably more key component of that maintenance phase once we're able to get there. And that'll be on an HMA by HMA, case by case basis. So Black obviously will be the first HMA to kind of get to that second phase and then we'll as we move on to the others, we'll continue to figure out what tools work best to manage the burros in that area.

Mr. French: Thanks.

Dr. Perryman: Yes, thanks for your presentation. It was a great field trip yesterday. I enjoyed it quite immensely. Just a couple of questions regarding public contact with these animals. One of the things that I think personally has been so good with respect to the Onaqui herd in Utah is their informational kiosks that they have. And it seems to me, and we didn't see any yesterday, maybe you have some of them up, I don't know, but there's so much checkerboard in this particular area and so much contact with humans, it would seem that some kind of an education program just in a sort of kiosk signage approach would get the word at least moving through those, I don't know what to call them, semi-residential areas; and other campers on both state and county lands that, you know, you need to minimize your contact. You don't need to be feeding these animals Cheetos.

And maybe that's something you might want to consider if you haven't already, is a really good strong informational campaign through kiosks, I don't know what else to call those things, little informational areas. I think you know what I'm speaking of; that's one way to do it. Of course, you're not going to eliminate all of that contact. I mean almost everybody in the world knows you don't go scratch a bison on the head, but people continue every year to do it and so you're never going to eliminate all of it. But I think maybe one way to at least enter into that educational format arena to initiate that.

Another way it occurred to me yesterday as well, since you have so many state lands and I think some county lands around there too that we were in and out of, and I know you can't go into a state office or a county office and start dictating things, but is there a movement, and it's sort of an educational movement and awareness that would disincentivize this human contact; if someone knows that if they get caught and it's going to cost them \$2,000 ticket, fine, that might be a disincentive. It may be a reason for a parent to tell a child, "Oh yeah, don't feed the burros out there, eat your own Cheetos and Doritos." So, I don't know, is that something that you guys have explored? Either one of those, both education and then a disincentive? I know there was some attempts to do that in the Virginia range with the state of Nevada a few years ago where the sheriff's office was actually going out and writing citations for people that were

supplementary feeding animals in their front yards and backyards and things like that. So, have you considered either one of those efforts in this education and non-contact incentive process?

Mr. Hall: Thank you for your comment about the kiosk. Currently, we do have kiosks that are at our established rec areas. They do have some information about burros, but it's definitely something we can consider moving forward is providing more material for those actual kiosks or have an educational type of kiosk at those rec areas. And maybe even on some of the areas where you can see burros more often, like the concrete bridge we drove over yesterday, there's pretty much always burros there. So, it's definitely something that we could consider. As for the-

Dr. Perryman: But it wouldn't hurt to ask the state if it would be possible to locate something in a strategic state land area as well. So not just-

Mr. Hall: It's definitely something that we can bring up during our next stakeholders meeting. We have increased our stakeholders' meetings to monthly just because of the amount of collisions that have occurred this year. As Jerry mentioned, that chip plant, there's a lot more people driving in that area than there used to be. So, we can definitely look into some sort of educational kiosk and provide some more information to the public.

We do have a flyer that we hand out on a normal basis that basically tells people to not feed the burros, but you can't reach everyone. Even with the kiosk, we will never reach every single person. And so, bringing up the feeding rule, we currently do not have anything other than basically harassment that we can go after people with if they're feeding the animals. There are state laws that don't allow you to feed wildlife, but enforcement is really difficult. You have to physically catch someone in the act. In the time that I've been with the BLM, I've really only seen a handful of people actually cited for harassment of wild horses and burros because of the feeding, and it's because law enforcement directly saw them do it. So, it's really difficult to enforce. There's not a special feeding rule on the books. It's definitely something that we've talked a lot about, and I will continue to try to move that forward. I have been for the last couple of years and hopefully we can get something eventually there.

Dr. Perryman: And your monthly meeting advisory board or whatever you're calling it-

Mr. Hall: Stakeholders, yeah.

Dr. Perryman: A stakeholder's board, do you have some of the OHV leadership groups in that group?

Mr. Hall: Not currently, but that's definitely something we can look into. That's a great idea.

Dr. Perryman: An invitation to those groups would certainly, I think, go a long way. A significant amount of your traffic judging from the number of fence cuts I saw yesterday.

Mr. Hall: Yes.

Dr. Perryman: Which is illegal as well. Yeah, I would certainly think about including OHV, sportsman's groups, and recreational group leadership in those discussions as well. And all it takes all it is one or two incidents of someone being caught with a hefty fine associated with it. That word gets around. And again, you're not going to stop everybody from wanting to, you know, you're going to see burros with Cheeto dust on their lips occasionally. It's just that's all there is to it. But anything we can do, and it sounds like you guys are on the right track to minimize those encounters, we're going to be better off. So, I appreciate it. Thank you. I yield back.

Mr. Kuechle: To sort of jump in with the quick time check. We have an hour before our next break and in that time, we have a presentation from the U.S. Forest Service with a local welcome and the board recommendations conversations so we can have a few more comments if we can do them quick or we can let the U.S. Forest Service present and then come back to questions.

Ms. Carlisle: Let me just wrap up on this. Dr. Bechert, and I'm going to kick to her because hers is related to Dr. Perryman's, and then we'll go to Dr. Lenz, and Dr. Iacona and Ms. McAlpine and then we're done. So again, be quick if we can hit back on this later with recommendations.

Mr. Hall: And I will see you all tomorrow as well in Florence so, we'll have time then to answer questions as well.

Dr. Bechert: Thank you. I just wanted to piggyback on what Dr. Perryman had been saying. We've been talking a lot about carrot versus stick incentives with the burros and the Cheeto powder on the burro; it is inevitable. We saw the burros, they're just so darn cute.

But educating the public is a tricky thing and if possible, both carrot and stick can be implemented. But I just wanted to throw out another idea. It seems like you've been doing a really great job building partnerships with the vet school, with the prison, which I think is great. I'm a fan of the word collaboration as well, just like Celeste. And one group that you might also consider is local zoos.

A lot of zoos are now doing more to display native species and develop partnerships for conservation projects. Desert Museum is a great example and I don't know, but it might be worth exploring that kind of partnership because zoos have specialists in public education and while a kiosk is nice, a brochure is nice, a fine can be helpful, having some kind of interactive display, especially if it's a big facility that might reach more people and a lot of local people do go to zoos and so you'd be targeting the right audience. That's all I wanted to say.

Mr. Hall: Thank you.

Dr. Lenz: So, I was thinking about this last night, and to me there's a lot you can compare this to the Yellowstone bears 30, 40 years ago where there was a lot of interaction with people. The bears became habituated to people because people like feeding them, and bears like being fed. And so initially what they did was post signs, "Please don't feed the bears," that had no effect because the public didn't see any danger or risk to it. But when they switch to "Feeding the bears is a death sentence for the bear," the feeding stopped because then the public could see that by doing something I think is kind is actually not very kind for the bear and actually a lot of these bears are going to die because when they move them, they come back, they euthanize them.

Now, it's pretty rare probably that a burro would attack somebody like a bear does. But by feeding them, they're drawing them into populated areas, they're drawing them to the road and they're getting killed. So, I wonder if you shouldn't up your message a bit that this is a death sentence. You're not only switching them to a diet that's not healthy for their species, but you're drawing them into congested areas and traffic where many of them die every year. And I'm sure you know how many that is, or you have a pretty good idea. So, I wonder if your signage shouldn't up the ante a little bit and say, look, this is not, you're not helping these animals. You're in fact harming them up to the point of death. Have you thought about that?

Mr. Hall: Yes. In our brochure, we definitely cover that once the animals are habituated, they're going to not leave the area and it puts them in imminent harm basically.

Dr. Lenz: Yeah.

Mr. Hall: I think that our messaging has not been that dire when it comes to that. It's not something that we would typically say, so we can consider that.

Dr. Lenz: I wonder if you... like on Yellowstone, they put signage up in congested areas saying, "Feeding the bears is a death sentence for the bear." So, it was right there where they could see it when they were thinking about reaching in and pulling out a sandwich and handing it to a bear. I wonder if that wouldn't be something...

Mr. Hall: The fatalities potential.

Dr. Lenz: Same thing. Yeah. But I think these are kindhearted people that think they're doing something good that they're not, because they don't know any better, to point out that what they're doing is actually extremely harmful to the animal, I think resonates much better than just, "Please don't feed the burros."

Mr. Hall: Thank you.

Dr. Lenz: That's my thought.

Dr. Iacona: Thank you for the great presentation and taking us around yesterday. My comment or question is actually on a slightly different topic, which is you said that you are focusing on Black Mountain for your gathers. How do you prioritize, how do you decide which of your HMAs you're going to focus your effort on? I'm curious about what is the process that you go through to think about where are we targeting our effort?

Mr. Hall: So Black Mountain had the largest population of burros. That's why we started with Black Mountain. And at the time when the strategy went into place, we had one specialist and myself in the entire state. So basically, Chad Benson is the district specialist there. And so that was the only place we really could start. We could have started on Three Rivers, but our priority really was Black Mountain at the time. So basically, we're moving from the HMAs that have the largest portion of animals and the largest amount that are over AML. So, we're trying to address those large ones first so that we can kind of get them in maintenance mode before we move on to the next HMA.

Dr. Iacona: Thank you.

Mr. Davis: And if I could just add to that real quick, we really do factor in scope of impact. So, like John said, we look where our efforts and limited resources can have the biggest positive impact both on the species and the resources out there, but we also do look at the areas where we're having the most management issues. So, if we're in that area, we were having at the time a fairly high degree of fatalities due to vehicles and other types of management issues. And so that's really where the focus was at the time as well.

Ms. Carlisle: Miss McAlpine, and then we'll wrap up this particular discussion and Bryant, I'll check in with you about order of operation.

Ms. McAlpine: I'll try to keep things very short, very succinct, and maybe just use some words, I'm a little concerned about the treadmill that we happen to be on with regard to wild horses. We're into the gather, hold, try to sell or adopt, gather, hold, try to sell or adopt, with very minimal application of fertility control. I can see that threshold coming for burros sometime soon, particularly with the cost of hay and the fact that rural areas are really shrinking quickly. So, my suggestion would be to support increasing fertility control much more quickly than what's currently being talked about now. Get off that treadmill really fast. Then the other thing that was brought up is that when we were talking is brought up is that when we were talking about education, every one of the people who come in, millions of people who come into Arizona, pass through the airport, pass through all of the places to go, things.

Why can't you put little cards there? They pick up tons of information when you're talking about federal lands and recreation. Add something to those little handouts. And then the last question was, and John ... you don't have to answer it today now, but I would like to hear what language you are trying to get accepted to add, to help solve that problem. Thank you.

Mr. Hall: Thanks.

Mr. Kuechle introduced Dr. Francisco who would be giving a welcome to the board and discuss the U.S. Forest Service efforts.

Tolani Francisco, U.S. Forest Service Wild Horse and Burro Coordinator

Dr. Francisco: Good morning, ladies, and gentlemen. My name is Tolani Francisco. I'm a Doctor of Veterinary Medicine. I am the Wild Horse and Burro Coordinator for the U.S. Forest Service region three, which covers New Mexico and Arizona.

So, I just wanted to give the update. The Forest Service in the southwestern region covers the grasslands of Oklahoma, Texas and then we have the forests that are located in Arizona and New Mexico. And this slide shows you where we have wild horses and burros in both New Mexico and Arizona. And I'm going to give you just a brief update of activities that are on each one of these territories. You'll notice that in the Forest Service we call them territories and not herd management areas. So that is an important distinction that we need to identify. Next slide please.

So, in Arizona we will start with the Heber Wild Horse Territory. This is our only wild horse territory in Arizona. We are currently in the process of an environmental assessment. We do have a herd territory management plan that has been written and is attached to that environmental assessment.

We have been doing aerial surveys with Heber and are trying to schedule one this year. We have had a little bit of difficulty with budgets and things like that. Our wild horse program is dictated a little bit differently than it is in the Bureau of Land Management. Ours goes on a forest-by-forest basis and with regional oversight. So, since 2018, a lot of people have known about this at Heber, we had an individual that started shooting horses and we have lost over 30 horses since 2018. And we do have an ongoing investigation with our law enforcement investigations, and we do currently have a \$10,000 bounty out, or reward if you will, to individuals that will lead to the arrest and conviction of the person that is identified for that. So, that is in an ongoing investigation, so we can't really speak more about that.

Then also in Arizona we do have burros, we've got the Long Ears and we have the Double A Burro territory, which is on the Kaibab National Forest and that is up just on the south rim of the Grand Canyon. They do have an existing environmental assessment that was done back in 1984 and we are looking at the AML on that one. The fertility reduction was involved or was included in that EA. And so once again, we've had some issues going on there with budget concerns and personnel because we do not have dedicated personnel to manage wild horses or burros on each one of our forests. We are trying again to get an aerial survey and working with the State of Arizona, or possibly with a sister agency in the USDA Wildlife Services, to do aerial surveys to help us in this area. This survey might be a little bit easier, and we have also been discussing with the USGS the possibility of using infrared and drone technology.

We could possibly do that on this burro territory because we don't have a lot of vegetation up there outside of Williams, our trees are a lot lower. So, we have been doing some removals and adoptions with a private individual, where the burros have gotten off of the territory and they have removed them and taken them to our handling facility in New Mexico. And once again, 100% adoption. People love our burros that come off of our territory. They're unique, they're strawberry roan, and so they go really, really fast because they're not your gray burro that you guys saw yesterday. Then in New Mexico we have on the Carson National Forest, this is our most active territory that we have and where we also have a handling facility in Bloomfield. The Jicarilla wild horse territory is on the west side of the Jicarilla Apache Nation. We do have a collaborative up on the Jicarilla that involves advocates, state, federal. We have invited tribal, they have not wanted to participate, but right now we do have a lot of collaboration, a lot of work with our advocate groups up in the Four Corners area. Probably the most successful part of this collaborative is the work that Homeland Habitat, which is a 501(c)(3) organization that was formed by several of our forest permittees that are doing darting and removing of horses from the Jicarilla territory.

We also have Forest Service personnel that are training some of our horses and you can see Denver in this particular picture. Denver was a previous wild horse off of the Modoc National Forest, came to the Bloomfield facility, was trained by our personnel and is now on the San Juan National Forest doing his job, as a good horse should do. So, we are trying to do more and more of that with the Jicarilla and our horses at Jicarilla are quite a bit smaller than Denver, but they make very good pack stock and a lot of folks like them and they're used to some pretty rugged territory. The Jicarilla wild horse

territory is adjacent to the Caracas Mesa herd management area and in this case, the Forest Service does have the majority of the activity, so we work with BLM, but most of the activity there even on Caracas Mesa is with the Jicarilla.

Then also on the Carson National Forest, a little bit farther south, it's outside of the town of Espanola, New Mexico, is the Jarita Mesa Wild Horse territory. This is in very tall ponderosa pine, it's a very difficult territory to get to. It's up on the Jarita Mesa and there again, they are part of that collaborative that the Carson National Forest has. There, we're using Sky Mountain Wild Horse Sanctuary and Mt. Taylor Mustangs, together they're an advocate group out of Santa Fe and they are doing our PZP and helping us with some removal of horses that have gotten off of Jarita Mesa and taking them to Bloomfield so that we can find them homes as well. So very good part of a collaborative effort and very supportive of those folks and the assistance that they give us. Thanks.

So, I wanted to show you a picture real quickly of our handling facility at Bloomfield. The Forest Service does have two and with, I think the last meeting that was held in Reno, you guys all went up to California to see the Double Devil Garden Wild Horse Corrals. Bloomfield has been there since the early 2000s. It only holds about 125 adult horses. We can hold up to 250 burros, but we do have a lot of work that, like I said, with our collaborative coming in there, we do have a very good collaborative with the Navajo Tribal College, the Navajo Technical University out of Crown Point, New Mexico, where we have their veterinarian and their registered veterinary technician students that come on a monthly basis, they do all of our veterinary work and they also help as you can see in the picture there with a number of interns that have come and help us work with the horses and try to get those horses settled and get them adopted back out. So very good tribal college collaborative that we have there that we started a few years ago when I came on board with Forest Service, that I think is very, very important because the Navajo Nation, as we know, has a lot of horses themselves.

And then we have helped with the Double Devil bringing some horses down from California to Bloomfield, assisting with their adoption process and then we also help them in transporting. So, using it as a stopover to give the horses a place to do a food, water rest station before they go further east. Thanks. Another very important part of the Forest Service program that I wanted to identify to you is our work with tribal horses. As you probably know, tribal lands have tremendous numbers of horses and they're not wild. So, of the 574 federally recognized tribes in the United States, and this is a map just of the lower 48, we have 45 tribal nations in our territory. So, in region three, Arizona, New Mexico, Texas, Oklahoma, you can see that our tribal lands are in purple, our forest lands are in green. And you can see that we share neighbors, we are neighbors, we share borders. And then a lot of times, we are sharing borders where we have horse territories and our burro territories, as you can see with our Navajo Nation neighbors up there and I mentioned our Jicarilla Apache. And so, with the Heber horses, that's the white Mountain Apache Reservation.

So, we have a very active, very robust program trying to work with our neighbors, our tribal neighbors, in helping with the horses that they have because we all share the horses sometimes as they come across. And that's been a big issue with our Heber horses that we have here in Arizona.

Then likewise, we have a number of state horses in both Arizona and New Mexico that we have to address, that are not federally protected. They are not on territories, but they are about, and they are on our Forest Service lands, both on the Lincoln National Forest in New Mexico and then here on the Tonto National Forest in Arizona, as well as the Kaibab, they have a number of horses that have come over from state lands as well that are not protected. So very robust program with non-wild horses as well.

So, I just wanted to give that quick brief update and show you that the Forest Service program, while we are very different than the BLM program, is very active, very robust, and really working, trying to build a lot of partnerships with not just the BLM but with our states, our tribes, especially with our tribes, and with not so much our counties, but with our neighbors that are on the forests. So, if you have any questions, I'm happy to answer those.

Discussion

Ms. Carlisle: Thank you, Dr. Francisco. Just a time check for everybody, watch your time. We'll take some questions. Bryant, can you let me know if Deputy Director Branham or Commissioner Pearson is trying to weigh in because I'm not seeing that, so just make sure I'm not missing them.

And finally, I just want to say I've been to both of your holding facilities. I think there's a perception oftentimes amongst all of us, myself included, that horses are just sitting in those facilities, and nothing could be further from the truth, and the care and concern that the staff shows and that those partnership opportunities show, are really high. So, I'm really appreciative that there is a lot of thinking outside of the box that is occurring, that just doesn't get communicated out into the world. So, I encourage folks that are not familiar with these programs to arrange a visit and go and see these places and find ways for being involved if involvement is something that's close to your heart. With that, I'll open up if there are any. Dr. Bechert let's go with you.

Dr. Bechert: Thank you. I know we're short on time, but I was really encouraged to hear that you are really putting forth a lot of proactive effort to work with the different tribal lands because horses, and I love your name for burros, long ears, don't recognize boundaries. I was wondering if you could say anything more about your work with the tribal nations.

Dr. Francisco: Well, I guess the biggest thing with tribal lands is trying to identify and let the tribal leaders know that they are not bound by the 1971 law, that tribal lands are sovereign and our tribal leaders have that ability to do and address the horses on their territories, or on their reservations excuse me, that they have different laws that we do not have, that we can't tell them what to do on their sovereign lands.

So, we are really helping them trying to bring out the fact that there are robust immuno-contraception programs. So, we have introduced them to PZP, the various different forms. We also have introduced them to different methodologies, remote darting, then possibly getting some of their folks trained to do darting on foot with different darting devices, and then helping them understand how to survey all of their lands. Just as, like I said, we've put on a number of different seminars with them so that they know all the different ways, the methods that USGS has identified. And so, right now, we're really interested in looking at the infrared with drone technology. A lot of people are interested in doing that so that they can figure out what they have on their tribal lands because some of the tribal lands are very, very rugged, and very, very remote, and probably more so than we even have, they have budgetary concerns.

Dr. Bechert: Yeah, okay. Thank you, that was very helpful.

Ms. Carlisle: Yes, Ms. McAlpine.

Ms. McAlpine: Thank you. I was waiting to be recognized. My question is whether or not there has been any impact on your territories due to the new national monument expansion in Mojave County and Coconino County in Arizona. We have been hearing, and I'll put hearing in quotes, that under that act, BLM and the Forest Service are going to, I will say asked for a polite term, to start to evaluate those properties by the federal government for the development of wind and solar farms with private companies who are subsidized by the federal government. So, are you seeing or hearing of any future impacts on those territories based on that? Thank you.

Dr. Francisco: The AA territory is considerably east of that area, so no, we have not, but there is a big wind farm that a private individual has put up, that is to the north and west of the AA burro territory. The AML on that territory was set, like I said, back in the '80s, and it's at 28 burros and we're probably over 400 burros up there right now. So, we know that there's quite a bit of excess burros there but know that that new monument is considerably distant from where we're at and we know that we still have to be working on our burros on the AA.

Mr. Kuechle: Dr. Lenz and then maybe we can move forward.

Dr. Lenz: So, do you know off the top of your head, roughly how many horses and burros are on forest land? How many were removed this year and how many were treated with fertility control?

Dr. Francisco: I know that in the southwestern region, which is all that I work with, Dr. Drotar might have the numbers for the total Forest Service, but in the southwestern region, our fertility management, we had a little bit of a setback. Our person that was on the Carson was killed; he was shot last January and so we had some problems. We had to replace him. It was very difficult to lose somebody to violence; they were trying to steal his car and they shot him.

But anyway, so we had a setback up on the Carson, so we did not get as many PZP deliveries. I think we only treated like 26 animals this year because we were set back about four or five months. We don't treat in the summertime because it's just too hard with the heat to keep the agent cool.

Ms. Carlisle: Dr. Perryman and then I'll pass it to Bryant.

Dr. Perryman: Very quick question. Where is the use of GonaCon in you guys' program? Is it all just still PZP or are you working toward using GonaCon? I'll let you speak, and I'll quit asking yes or no questions.

Mr. Kuechle: I'll ask Dr. Drotar; I know you have a presentation later. Will that be part of that? [Mr. Drotar nodded affirmatively.] Okay.

Dr. Perryman: Great.

Dr. Francisco: And just to comment, we are working on the Carson National Forest, that EA only addresses the use of PZP. And so right now, we are looking at possibly doing a section 18 or what kind of amendment we need to do to our NEPA analysis to involve GonaCon because we are very active in pursuing that. We have GonaCon written into the Heber EA and so, as soon as we get a decision notice whether GonaCon will be available, but we have to get through that NEPA analysis. We're hoping, our fingers are crossed, that this year we will get a decision.

Dr. Perryman: Thank you. That's exactly what I was hoping to hear.

Approval of Previous June 2023 Meeting Minutes

Ms. Alpine moved to approve the June 2023 Meeting Minutes as presented. This motion was seconded. All approved and the minutes were accepted.

Discussion: BLM and USFS Responses to Board Recommendations from June 2023 Board Meeting

Ms. Celeste Carlisle, Wild Horse and Burro Advisory Board Chair

Ms. Carlisle: We're going to go ahead and move on to the June 2023 recommendations and the agency's responses to those recommendations. In the interest of time, and also all this information is available online and I am hopeful that we have all read through everything, we will go recommendation by recommendation just to check in and see if anybody has any questions or comments. Chief Waddell and I are not going to read word for word for you all. I know you're disappointed.

So, we'll go ahead and just start. I'll just give a one sentence summary. Our first recommendation was towards implementation of fertility control, some nuance around that of course. And so, does anyone have any discussion points or questions about that recommendation or the responses? I'll give a second for people to review.

Ms. Carlisle: Dr. Perryman?

Dr. Perryman: I have—I guess a comment and a question, there's two. If you look at the responses, these are two completely different responses. The first response essentially says we're not going to really get into fertility control until

we get to AML. And the Forest Service response is, "We are trying to figure out how to implement more fertility control into our program." I mean, they're almost diametrically opposed.

And so, my question is really the bureau, for Holle I guess, or whomever wants to delegate the answer to. We do have some HMAs within the Bureau that are somewhere near AML. And so, what are the plans for implementing real fertility control using the PopEquus model on those one or two, or three, or however many you want to choose, that could serve as these demonstration projects that we've been recommending for about two--at least two cycles now. It just seems like there's no interest and I can't believe that. It just seems, just from looking at the response here, the response seems to indicate no interest and I don't know that's not true. So, what HMAs that are at or near AML, are fertility control being really ramped up into the management of those areas?

Ms. Waddell: Thank you, Dr. Perryman, for that question. And I may lean on both Scott and Paul, Dr. Griffin, for some additional response. But I think to easily answer your question, are we continuing fertility control in HMAs that are at or near AML? The answer is yes. So, it depends. We have 177 HMAs, so we would've to do a little bit of analysis of which of those HMAs are the ones that are at or near AML.

And we do have a table that we take a look at, and we do focus our efforts in continuing to maintain those HMAs at AML. So, that answer is yes. Are those large numbers? No, they're smaller HMAs and they are not thousands of numbers of treatments that would happen in any one year. So, your question about demonstration projects, obviously I think we consider that as more of a management tool, and right now we're in a crisis to address overpopulation and that is where our focus has been. Where is it that we can begin to significantly address overpopulation in which HMAs with our ... we do have staffing capacity, budget capacity, space capacity. So, we focus where we can get the most efforts in any one year. Scott, anything to add.

Mr. Fluer: Yes, thanks, Holle. On our gather schedule we do identify those herd management areas that are under what we call a cash treat and release effort, which is those HMAs that are right at AML are just barely over AML. And I think in 2022 we addressed 16 of them. Last year we addressed quite a few of them as well. And if you look at our gather schedule this year that's posted online, we have some that we're addressing in addition, but our approach is let's focus on those grossly overpopulated HMAs as well as trying to maintain those HMAs that are at or near AML with fertility treatment. And then we also have a darting program listed on the gather schedule as well, so that information is available to look at.

Dr. Perryman: Just to follow up, it seems to me, and it sounds a little bit different than your response here, and I thought that was probably going to be the case, but it would be a shame to get to a point where we get these large numbers down, this catch and house sort of approach, and then suddenly we get to some point where we get down to AML on some of these large areas and suddenly we have the ability now, the numbers are at a place where we think we can inject fertility control in a really big way and we don't know how to do it because we haven't learned how to do it as we've been moving along. And so, I think this has been one of the board's concerns I think over the last couple of cycles anyway, is that it's like President Kennedy said, " We're going to go to the moon and we're going to do the other things too."

And so, we have to be ready to implement a robust fertility control program that includes PopEquus as a modeling tool once we get to that stage. But we can't wait until we get to that stage in order to learn how to do it. And that's what we want to make sure that there's this simultaneous approach that's going on. I mean, a real hardline simultaneous approach, so that we don't get caught with our hands in our pockets once we do get to some significant reductions.

Ms. Waddell: Thanks Dr. Perryman, and I would agree, and I don't think that's the case. I do think that we develop policy where we added fertility control planning and implementation, which is what we're referring to in that response, in any type of gather planning. For example, when a state is identifying where their gather priorities are, part of that questioning and analysis is where can we apply fertility control? And that has to be part of the plan, overall plan, where we're identifying a gather. And I wanted to go to Brian St George, I think he had an extra comment.

Mr. St George: Well, I thought you tackled it well there at the end Holle, but I'm happy to step in here just for a minute. Again, folks, my name is Brian St George, I'm the deputy assistant director for BLM. And previously, particularly when this response was written, I was serving in the acting capacity that Sharif is now serving. So, I thought I might step up and speak to this because Dr. Perryman, you're absolutely right, we can go to the moon and do the other things.

In this response, we are trying to hold multiple things as true in our mind, and I spoke a bit with some of you on the board about this yesterday as we were in the field. I know that there is desire among the board to see us ramping up more quickly those fertility control applications and to do them at every opportunity we have. We hear that and we hold that to be true.

We also know that to make those treatments as efficacious, to make them the most effective that they can be, we need to ensure we are as close to AML as possible. And so, when we are balancing our limited human and financial resources, we're constantly trying to apply this calculus to where can we be most effective with the limited human financial resources, we have available to make an impact on population growth curves. And so, we are not always able to apply fertility control at a maximum level in every herd area. Holle and Scott both highlighted those places where we are deploying a maximal approach on fertility control. We are applying an approach on fertility control in other areas. It may not be maximal yet, but we are working towards that while we're still trying to apply a more maximal gather approach, gather and removal approach, so that fertility control can be efficacious.

We may not always get that balance right, but those are the multiple things we are trying to hold true at the same time. And I think I hear the board clearly, we hear the board clearly, that you want to see a more aggressive approach on treatment, and as we balance particularly our limited finances, we're seeking to do that.

Dr. Perryman: And I thank you for articulating it better than the written response. And I just want to reiterate, there is a learning curve for applying fertility control. How do you do it? Where you do it, when do you do it, how much do you do it, etc. and we're-

Mr. St George: Safely and humanely, yeah, absolutely.

Dr. Perryman: And we're pretty close to the starting line I think, with respect to a programmatic approach to it. And so, I just want to reiterate that, that we need to push that learning curve and I think that's the board's desire. I don't want to speak for the entire board, but I think they would agree that that's our desires, to push that learning curve ahead in this implementation and in the use of this PopEquus model that has so much potential, we think.

Mr. St George: Thank you Dr. Perryman, and thanks everybody. It's nice to talk to the board in an official setting, thank you.

Ms. Carlisle: We're going to have Commissioner French, and then I'm going to force us to move on because I don't think this will be the end of our fertility control discussion. It's also one of our favorites.

Mr. French: I'm going to keep it real brief, but I'm going to play off of Dr. Perryman's comments. There's one other component that we didn't talk about here

Mr. French: You know, there's one other component that we didn't talk about here with regard to the advantage of ramping up, or scaling up, the use of fertility control as a component within the gathers, and that's the political connection. At least from where I live and from what I have been hearing from multiple groups of folks out there on the ground is that there's a real robust interest in seeing the bureau ramp this program up and there's a real support for utilizing fertility control as a function of the gather process. And it was universal across all the groups that I have been exposed to within this context. So, I just want to get that on the record because that's a big component I think that we just missed.

Mr. Kuechle: Mr. Branham has his hand up.

Mr. Branham: I'll be very brief. Brian was speaking to some of the limitations around the use of fertility control and I just wanted to point out the time constraints, as well, that are taken into consideration. I don't know if Holle or others want to speak to that, but you can't just use fertility control any time of year, so that's another issue in addition to staffing and financial and all those other things. I don't think we're on a different page, to be honest with you. I think that we're just aware of the limitations when it comes to all these other pieces to operationalize use of fertility control. So, I don't know if Holle', if you wanted to add to the time aspects so folks are aware when you can use fertility control.

Ms. Waddell: Sure. And thank you Sharif, appreciate that. Right. So there's not just one or two things. There's a couple of limiting factors that have to be considered whenever we're determining where a gather will take place, when states are making those decisions and we're developing a gather schedule. And we do have a gather moratorium where there's a timeframe where we're not doing anything during foaling season. Then there's also winter months that can create some challenges. Dr. Francisco, which I don't see here anymore, but she spoke to some of the challenges. Oh, she is in the room? Okay. She spoke to some of the challenges about if it's hotter months, being able to keep the agent cool. So there are some other factors there that have to be considered when we're determining fertility control applications.

Ms. Carlisle: Thank you, appreciate the nuances. Dr. Lenz, and then we really are going to move on.

Dr. Lenz: I have a really short question. So, what percent of the mares that are released during a gather receive fertility control prior to release? The mares that are returned to the range.

Ms. Waddell: What was that question again?

Dr. Lenz: What percent of the mares that are gathered and then returned to the range, because most gathers return some mares back loose. What percent of them get fertility control?

Ms. Waddell: So, all of the mares that are returned-

Dr. Lenz: Every mare?

Ms. Waddell: yes. Would have a fertility control treatment. Otherwise, they would be removed.

Dr. Lenz: Okay, that's good. That's a start. Yep, thanks.

Ms. Carlisle: All right. Recommendation number two had to do with making sure that very local decisions could be beginning to guide decisions towards AML, which I think maybe our intent of the recommendation wasn't completely clear, but the responses essentially are that eventually this might be helpful. Sorry, I'm trying to paraphrase quickly. That current range conditions are ever evaluated by staff. So, are there any comments about this particular recommendation and the response? All right, we're going to move on.

Number three was an effort to further centralize Wild Horse and Burro programs within both BLM and Forest Service to increase effectiveness, especially in response to ability to respond to emergencies. BLM's response and forest service's response are effectively that this is being investigated. Any comments or do the agencies have anything to add to that? Okay. There were sub-parts and it all had to do with centralization, so unless there's further comments we'll move on.

Recommendation number four was exploration of creative funding sources and capacities, and responses were that that is ongoing. Any comments or clarifications to responses? Dr. Perryman?

Dr. Perryman: Just one quick comment, and I applaud the exploration of additional funding, and particularly when it comes to the foundation. I just want to make sure that the foundation and other potential funding sources are not and do not make the policy and the planning. And so, I don't think any of that's going on, but sometimes there's a little bit of mission creep and we may want to make sure that the foundation is not dictating horse management policy, rather than the bureau who are the experts. So that's my comment.

Ms. Waddell: Thank you Dr. Perryman. I would update that when we provided the response to this particular recommendation, since then the CEO has been hired. Her name is Eileen Thompson. Super excited to be working with her. She's very energized about her role and the participation that the foundation could have with assisting with outreach and education of the Wild Horse and Burro program.

And obviously policy is the responsibility of our agency, BLM, and so that in my mind would not be happening. If I had an option, I definitely, I don't think Brian and Sharif would... They would probably support that effort is that we know best we're subject matter experts and would be focusing the policy on what is aligned with the regulations and also the Act itself.

Ms. Carlisle: All right. The next recommendation was for tribal consultation and maintaining discussions with those and other government entities. Responses were essentially that that is part of the Act and ongoing, part of environmental assessments and ongoing. I think we had a good bit of information from Dr. Francisco; that was very helpful to further flesh out the US Forest Service response. So, any questions or clarifications on that particular recommendation? The sixth recommendation was for Forest Service to continue to advocate for its own separate budget for management of wild horses and burros. Are there any clarifications or updates to that? I know we've kept trying to communicate that we know this is important. I think we're all trying to figure out how we make it happen, so if you all have anything to add to that.

Mr. Oliver: No, we do appreciate the recognition and the support to the recommendations on that. Do know that at every opportunity I get, and people feel I'm obnoxious about it at times, but I probably am. I'm Just trying to get that recognition that there's a lot of work to be done and the longer we continue to ignore it, the more work that needs to be done, and we're never going to find that happy point if we don't get started somewhere. So anyway, we are having those discussions for sure.

Ms. Carlisle: Can you guys tell I can't multitask? I'm trying to do two technological things at once. Our seventh recommendation was, I would say more of a statement that we continue to be supportive of the agency's commitment to the Comprehensive Animal Welfare program. So, the responses are essentially yes, that's ongoing. Yes, it's always ongoing. That's how those sorts of things work. So, any responses or clarifications to that one?

Move on to the, I believe, final recommendation from the last meeting, which was again, continual improvement of that Comprehensive Animal Welfare program. And I'll point out continuing to improve is not punitive. It's just that idea of sort of a living program that continues to refine lessons learned along the way and that that changes, we learn more. Anything else that can go to the order on the recommendations? Commissioner French?

Mr. French: Thank you, Madam Chair. I just wanted to also emphasize from my notes that one of the other major components of that recommendation was the incorporation of those lessons learned into a written protocol that everybody could read and understand and digest. So.

Dr. Perryman: Just a brief question. There was a case I was made aware of, as far west as Wyoming this year, of EEE. Was there any eastern neckline encephalitis cases that you saw in on any of the holding facilities anywhere? Dr. Drotar needs a mic.

Dr. Drotar: We did not, but with two veterinarians on the staff, the disease management and disease surveillance is extremely important from our viewpoint. So, all of the animals that are gathered in and processed get vaccinations for all of those diseases. And it's on the top of our list of keeping track of anything, including the non-vaccinatable, which would be vesicular stomatitis. But we did not see any diseases of any sort, including EIA, but we are definitely on top of it and concerned about and have told management if these things are detected in the wild population that the management will have to change because of our domestic animal laws. But at this point, no, we haven't detected any of those types of diseases in the wild population.

Dr. Perryman: Or in holding facilities would be more like, they're farther eastly?

Dr. Drotar: No. Well, and that's where you're going to... I mean if you find animals that are out, if a staff member sees an animal that is having difficulties on the range, then we'd bring those in. But primarily it is at the holding facilities and as soon as possible, those are processed and vaccinated.

Dr. Perryman. Thank you.

Ms. Waddell: Bryant, I'm going to go ahead and kick it to you.

Mr. Kuechle announced a short break

Public Comment Period (1)

Bryant Kuechle, Facilitator, The Langdon Group

Mr. Kuechle welcomed the board and members of the public back to the meeting. He then went over the rules for public comment, either virtually or in person.

Virtual Comments Provided Over Zoom

Dr. Joanna Grossman

Great, thank you so much. My name is Dr. Joanna Grossman and I'm the equine program director for the Animal Welfare Institute. As one of the nation's oldest animal protection groups, AWI has advocated for the humane stewardship of our nation's wild horses and burros since the 1950s. I want to thank the board for the really interesting and informative discussion that has occurred so far, and I just wanted to raise a few points today.

So first of all, we appreciate that the BLM has released multiple notice of funding opportunities this year, including for the on-range application of fertility control. Collaboration with stakeholders will undoubtedly play an important role in improving the management of wild Equines, but we hope that the agency itself will initiate necessary programmatic reforms and take the initiative to implement fertility control programs utilizing existing immune contraceptive vaccines. Training agency staff to oversee and administer fertility control efforts will set the BLM on a far more sustainable approach.

We were pleased to see both House and Senate appropriations language for FY 24 directing the BLM to implement a robust and humane fertility control strategy, one that prioritizes immune contraceptive vaccines. Increasingly strong bipartisan support exists among federal lawmakers for a management strategy that allows wild horses to remain on the range. Similarly, House lawmakers included directives regarding alternatives to the use of helicopters to remove horses. The past several months have seen horrific fatalities including during the notorious Antelope complex roundup where 11 horses died in the span of 10 days, and ultimately 39 horses perished as a result of that operation.

Last month, the BLM announced that nearly 3000 wild horses and burros had been placed through the Adoption Incentive Program in FY 23. Given the grave problems that have been identified with the AIP, which offers \$1,000 cash incentive to take an untrained wild horse or burro, we are very concerned with the uptick in adoptions and sales. As the New York Times investigation revealed, it is far too easy for these equines to be sent to slaughtered.

At a minimum, the agency must move away from direct cash payments that encourage unscrupulous individuals to pocket the money and funnel these horses and burros into the slaughter pipeline. Switching to veterinary vouchers offers a more sensible approach that avoids the glaring potential for abuse.

The BLM is ultimately not going to adopt its way out of the problem of how to curb population growth. Likewise, an ever ending and brutal cycle of mass removals with minimal application of fertility control treatments represents neither a sustainable nor successful model for effectively managing herds. A proactive approach to implementing safe, proven and humane fertility control is key to keeping horses in their natural habitats and minimizing the exorbitant costs associated with roundups and holding. Thank you again for the opportunity to provide input on behalf of the Animal Welfare Institute.

John Hiatt

Okay, thank you. My name is John Hiatt. I live in Las Vegas, Nevada. I'm currently chair of the BLM's Mojave Southern Great Basin Resource Advisory Council and back in 2006, '07, and '08, I was also on the RAC at that time, and I was on the statewide RAC subcommittee on wild horses and burros. I am quite familiar with the problem.

At that time in 2008, we were just about two or 3000 horses over AML in Nevada. We were working hard to try and figure out how to upgrade the adoption program to deal with that number. Because of the great recession and some other issues, the progress lapsed and wild horses were not gathered, and population is increased to the point that we now have somewhere around 45,000 wild horses in the state of Nevada. That's after gathering thousands of horses. That's about almost four times upper limit of AML, and it's also about 300% more biomass of wild horses than the total biomass of wild ungulates. Basically elk, deer, bighorn sheep and antelope in the state.

And what we're looking at here if the current situation isn't fixed, is really catastrophic loss of range lands, of riparian areas and major loss of horses themselves due to starvation and thirst. We are at a crisis point and we definitely need to take dramatic action. Birth control can help in the short run to stabilize numbers, but it cannot reduce numbers to the point we need to be down to AML. We have a choice and that is we can spend a lot of money now to get down to AML via gathers, or we can spend much more money later. And it's our choice and I think we really need to bite the bullet and get us down to AML so that we can have a sustainable program.

What we're looking at here is a fourfold catastrophic situation: catastrophic loss of range land health and especially riparian areas, catastrophic loss of native ungulates. We're also looking at thousands of horses at risk of death by starvation of thirst, and we're also looking at a disaster for the US taxpayer who's going to have to fund this to try and get us out of this mess in the future years. So, I implore you to do whatever you can to get the funding to get us down to AML so that we can sustainably manage our wild horse population. Thank you.

Meredith Hou

Good morning. My name is Meredith Hou and I'm a former equine veterinary technician and now the director of federal legislation for the American Society for the Prevention of Cruelty to Animals, the first animal welfare organization to be established in North America, which today serves as the nation's leading voice for vulnerable and victimized animals. Thank you for the opportunity to testify today in support of humane and sustainable management of wild horses and burros. My comments today focus on the critical area of on-range management strategies and solutions, including of course, fertility control, which is supported by all the major stakeholders.

I want to begin by first acknowledging the board's June recommendation that the agencies develop operational plans outlining how robust, meaningful, programmatic fertility control will be incorporated into HMA and territory management plans. Appreciating that it takes time and planning to get fertility control programs off the ground, there is no time to waste. FY 22 saw record treatments at 1,622; the peak of an upward trajectory that itself was far behind the pace necessary to manage on-range populations in order to prevent an escalation in off-range holding numbers. Disappointingly and precisely because of the increase in off-range holding expenditures, treatments dropped to just 720 in FY 23, the lowest it has been since FY 19. Now is not the time to shrink this essential area of work. We need to see a rapid ramp up instead.

Congress has repeatedly demonstrated its support for this work by investing in the Wild Horse and Burro Program, increasing annual appropriations consistently over the last five fiscal years, nearly doubling the program's budget in that time. Yet a goal of treating 1300 in FY 24 does not do this investment justice and is well out of line with the best science and what is required to make meaningful change and rebalance herd populations. The agencies need to substantially prioritize the use of currently available, safe, humane and effective fertility control treatments.

With that, we appreciate the BLM'S recent efforts to expand fertility control through the Notice of Funding opportunity and strongly encourage the agencies to go further by investing in existing and hiring additional personnel to bolster effective fertility control programs. This work must be more fully embraced by the agency and implemented by its own staff alongside outside experts' engagement.

In many cases, fertility control can and should take place during gathers, and indeed BLM has committed to an increase in catch, treat, hold, release operations to expand its fertility control applications. As the vast majority of these operations are

occurring in HMAs already within AML, it is worth calling attention to the fact that fertility control is not just a tool reserved for once AML is reached but is actually essential for the use on HMAs above AML to stem for their population growth.

The ASPCA continues to support a four-prong management strategy that requires sustained BLM commitment to on-range fertility control, as well as strategic removals that strictly and faithfully adhere to the comprehensive animal welfare program with consequences for violators, more humane, off-range holding and responsible adoptions to good homes. We encourage-

Nicole Hayes

Good morning and thank you for the opportunity to provide comment today. My name is Nicole Hayes and I'm the conservation operations manager for the American Wild Horse Campaign. As many of you know, horses evolved in North America over 35 million years ago where population flourished and eventually spread out from North America across the Bering Land Bridge into Asia. Fossil evidence published in 2021 showed that these ancient horses in Asia and North America moved back and forth across the Bering Land Bridge, interbreeding for hundreds of thousands of years maintaining the same genetic lineage. These exchanges only stopped with the final submergence of the Land Bridge around 10,000 years ago. At the same time, a mass extinction event occurred that saw the extinction of the woolly mammoth, giant sloth, and at least 20 other genres. The cause of this mass extinction is still unknown and likely had multiple causes including a change in climate, disease, and human hunting. A paper by Walters et al in 2015 provided direct evidence of horse hunting in North America at the end of the last Ice Age and showed that horses were among species that went extinct or functionally extinct, hunted by humans during this time. However, even more recent technologies published in 2021 have shown that horses endured in pockets of the Arctic zone in North America as late as 5,000 years ago. This exciting new study demonstrates that horses and humans resided together in North America for around 20,000 years.

Additionally published in Science This Year, horses were shown to be deeply integrated into indigenous societies before the arrival of Europeans to most of the American West. In summary, it's been proven that horses evolved in and spread out from North America, providing the horses that were eventually domesticated. Horses existed in North America until at least 5,000 years ago, over 20,000 years after humans came to North America and where human hunting of horses has been confirmed in the fossil evidence. The free roaming horses of today have lived wild for hundreds of years in North America. However, their right to exist as such is the subject of much debate. There's no debate on the legitimacy of the American bison or North American moose and their right to roam and exist on public lands. However, most people don't know that the ancestry of both these species is actually Asian. Moose only migrated to North America as little as 10,000 years ago.

Additionally, when the great extinction of bison occurred in the 1800s, the American bison was essentially saved from extinction by five private ranchers. Due to this selective breeding, it was recently published that all American bison today have some quantity of domestic cattle DNA. So even though both these species evolved elsewhere, no one would disqualify these animals from being counted as native, and rightly so. You have to ask yourself, why is the horse different?

To quote Dr. Ross McPhee of the American Natural History Museum, what is true of the bison is equally true of horses. Both are Ice Age survivors. Both are native and both deserve our respect and protection. I urge the board to recommend the BLM consider new and ever-evolving science like this research that cements the ancestry of the horse as a native species, and in turn provide more up-to-date, innovative management tactics that keep wild horses on the lands they evolved on. Thank you.

Pam Harrington

Great. For the record, I'm Pam Harrington, natural resource officer for Lander County Nevada, who's one of the counties that has issued a state of emergency regarding horses. Thank you for the opportunity to talk with you, and I know you all know the numbers and statistics and the contentious issues. And I'm going to ask everyone listening to have an open mind

and an open heart. Please consider the proposal that I'll put forth with positivism and a desire to make horses, wildlife, and our public lands healthier.

I had a BLM Mustang once and she was a great trail horse and a great horse. I had never seen a horse nudge a big rock over so that she could get to the long grass that grow next to the rock that was missed by many. She knew what it was to be hungry, but I've got to say under my care, she even got tired of eating the zucchini during bumper crop years. She was a good horse.

But it's up to us humans, and if we could get together and we could have a common goal to try and see how things work when AML is reached and the horse populations are set for what they should be on the land they live on, could we just agree on this goal? A number that will hopefully allow horses and wildlife to live in harmony and nobody starves, and nobody dies from thirst. Just if we could all agree to reach AML.

I worked for an NGO too, and I know the pressures that are put on funders by funders to keep a campaign going and win. And I'm asking NGOs that are horse advocates to please concentrate the win to be on the health of the range, the horses and the wildlife that depends on it. If we could unite and tackle AML, NGOs, you'll have more supporters.

Most everyone loves horses and wants to see free roaming horses in Nevada healthy and at manageable levels. The recent Roberts Mountain gather by my house resulted in 858 horses gathered. And yes, one horse did die from that gather. And like I said, I owned a BLM mare, I've owned many other horses and accidents do happen and one wild animal in 858 gathered that was harmed, it was a good effort.

If we could focus on a positive goal to reach AML, to show success could precipitate from manageable numbers, then fertility control and other things would be a lot more effective. But we got to get the numbers down, guys, to something that we could manage. And BLM, thank you for everything you've done here trying, but these numbers are seriously out of control.

Rebecca Falk

Hi. My name is Rebecca Falk, and I am from Kansas. I don't live in horse country, but I have worked with horses, wild horses and burros in the past. I'm very saddened that helicopter roundups are still going on. Every time there are helicopter roundups, wild horses and burros die. Helicopters were not used in 1971. They came in in 1976.

I don't think there was ever a time to use helicopters to round up wild horses. Helicopters endanger wild horses and burros and wildlife, and they need to go away. Helicopters cause life-threatening injuries, and helicopters have been seen several times flying too low after they should be going up.

There's been documentation of wild horses being chased by helicopters, giving birth, and the helicopter did not back off. Why did he not back off? I don't know. Foals are in great danger when helicopter roundups happen. They get stampeded by wild horses because they are scared. And I have to admit, every time I see a helicopter myself, I always think of the wild horses and burros. And I really shouldn't be thinking about that because helicopters help people too, but it just hits me in the gut. That is wild horses.

I also want to work on the fertility control. I'm very actually upset at the Wild Horses gather. They have been a good show for PCP for the last 20 or 30 years. They're over AML just a little bit and these wild horses are very old. A lot of them are not going to survive the winter.

I don't understand why there's such a rush to capture these horses for bait and trap, which is better than helicopters, but it's catching horses. They are going to endanger this herd by catching young ones and getting them out. I've also had a few people say that Thora, the one that's under Thor, these are everyone knows these horses names. Anyway, Thor is showing a little inbred. This horse is showing a little inbred, showing the AML at least be 150 wild horses versus under 140 or less.

Also, I think the HMA should probably be a little bigger for these horses so that they can keep 150 to 200. They are beloved by people outside of Cody. They give tourist dollars to this community as well as known for worldwide.

There are over 65,000 horses in holding. Now. That's a lot of wild horses in the burros that need homes. This is so sad. I think that the roundups need to be stopped and fertility control should maybe be focused on, but that should only be PCP, not GonaCon. GonaCon sterilizes these horses in two times, which is very sad. And they also have to call assesses. And they don't know if somehow a stallion actually gets darted and what would happen to the stallion. I think this needs to be stopped.

Rick Karcich

Hello. I am Rick Karcich of Centennial Colorado, and for the record, I state the following. We're all woven together in the web of life and we humans need to be in balance with all other creatures in this web. In the Lakota spiritual way and teaching, they have what they call the sacred medicine wheel.

For indigenous people every single life form has been given a seat on this sacred hoop of life. And that includes us humans and we humans are latecomers in the evolutionary placement of life on this sacred hoop. In striving for balance and harmony, we must humbly accept the wisdom of those creatures who came before us.

Every single member has a process for upholding its part in promoting the integrity of the sacred hoop. Every single member must uphold their part of the sacred hoop or the life of the hoop begins to fail. The thing about this sacred hoop is that it's really speaking to a very deep level of interrelatedness and interbeing. And the same interrelatedness and interbeing are also part of both western and eastern religious traditions.

Every member of the sacred hoop counts, and every member has to be given the opportunity to uphold its part of the hoop. Every member has been given a perfect design to do that. The question is, is every member being given what they need in order to realize their perfect design for thriving life so that they can contribute to keeping the integrity of the sacred hoop of life intact?

The BLM and Forest service were tasked with the stewardship of wild horses and burros. Their directive was to protect and manage these living symbols in a manner "designed to achieve and maintain a thriving natural ecological balance on the public lands." Wild horses and burros have to be allowed to realize their perfect design for a thriving life or this sacred hoop of life begins to unravel.

Wild horses and burros are emotional, soulful animals. That is part of their perfect design. Wild horses and burros intuitively read our emotions, they're masters and understanding body language. Indigenous people have used this wisdom in training wild horses for thousands of years.

I believe we're witnessing an unraveling of the sacred hoop with never-ending roundups of wild horses with unjustifiably applying cruel contraceptive practices and confining wild horses and burros to filthy, disease-ridden feedlots and finally condemning them to slaughter across our borders, we are poisoning the interrelatedness of the sacred hoop.

I believe it is important not to feed into the false narrative that there is over-population of wild horses and BLM needs to remove them from the range. This has only resulted in harm to wild horses. Livestock far outnumber wild horses on public lands. Our public lands should not be used to subsidize the meat industry and wild horses should not be removed because they are seen as competition for slaughter bound livestock.

In the spirit of upholding the sacred hoop of life with the fullest of justice that it requires, I encourage the Wild Horse and Burro Advisory board to emphasize the sacred duty to uphold the integrity of the sacred hoop by stopping roundups and the cruel immunocontraception of wild horses.

Sherman Swanson

Thank you. The Coalition for Healthy Nevada Lands Wildlife and Free Roaming Horses has recently sent a letter to the BLM director, Tracy Stone-Manning, that was co-signed by 35 local government or NGO entities and 15 additional prominent and diverse individuals. This letter is in your packet, so I will not read that.

We support all the recommendations made by the BLM Wild Horse and Burro Advisory committee at their June meeting. However, the first four demand additional comments. However, the robust discussion about number one tells me that you all are on the same page and on track. I will skip to number two.

Urging a process for locally relevant short and long-term range health considerations to guide decisions toward determining AML is especially important because the BLM in the 2010 Wild Horse and Burro Handbook defines a thriving natural ecological balance as meeting land health standards.

Number three, encouraging increased program effectiveness through A, better national management of long-term holding, B, a separate budget for emergency gathers, and C, developing a national multi-year budget is critically important. A, long-term holding capacity is currently or potentially limiting management effectiveness for every herd.

B, emergency gathers should not be allowed to impair implementation of strategic plans because dependence on our emergency gathering is probably the shortest way to create the greatest long-term costs for the program. Our current overpopulation crisis is because excess horses were allowed to produce more excess horses.

C, a multi-year budget requires a long-term plan for achieving AML. Only a long-term plan shows how the program can become sustainable after achieving AML. AML allows fertility control to be effective and having fewer excess horses reduces gathering costs. Fewer excess horses and burros allows adoptions to absorb the necessary supply of gathered animals and AML should stop additions to long-term off-range holding.

Rational planning that considers greatly expanding access to facilities and considers very high annual gather numbers for a limited number of years until AML is achieved will probably indicate the least cumulative cost and impacts to horses and ecosystems. Number four supports a partnership and the need to professionally collect local data on rangeland trends. Whether the needed trend data are collected by the agency or others, it is trend data that are most needed in locations where range health is sensitive to population management, especially in lentic riparian areas that are responsive.

Furthermore, riparian functions are important to sage-grouse and other wildlife. I sent a publication as well, it's in the packet. Thank you for your hard work and consideration of our comments.

Tracy Wilson

Good morning. My name is Tracy Wilson and I'm the Nevada State director for the American Wild Horse campaign. The BLM has stated it needs to reduce wild horse populations to AML before fertility control will work. But the reality is getting to AML and holding it is an unattainable goal with the agency's current plans.

Continuing to round up wild horses in mass while waiting to get to AML is not only proven to be counterproductive to the BLM's goals but is costing taxpayers millions. It's been 10 years since the National Academy of Sciences recommended robust fertility control as a strong management tool. The BLM needs to use scientifically proven fertility control in a meaningful way. Used when over AML, every birth prevented with fertility control is one less horse removed, which is one less horse at risk of entering the slaughter pipeline or one less horse requiring taxpayer funding to be held in long-term holding for its lifetime.

We've already seen that fertility control works on a larger scale in the world's largest wild horse fertility control program here outside of Reno. In the first three and a half years of our program, we reduced the foaling rate by over 60% with no roundups. While some may say a program like this can only be implemented in a herd that is acclimated to humans, many of the VR horses live high on the range where they are quite afraid of people. And yet our team continues to trek into those wild areas to treat mares. If they can do it imagine what can be done on a larger scale with more resources.

Our program successes were presented at one of the world's most prestigious equine reproduction symposiums in Brazil last summer and will be presented at another international veterinary conference in the spring. BLM's own listed fertility control treatment target for 2023 was 1,346, which was not met. As of last Friday, we have administered fertility control to 1,134 mares on the Virginia range since January 1st.

Through a partnership we've supported delivery of fertility control to another 19 mares on the Pine Nut Mountains HMA on the way to a goal of 50 and have just started administering fertility control to mares in the Cedar Mountain HMA in Utah with six mares treated in the last month by just one darter.

We can't flip a switch to fertility control overnight, but the BLM can take measured steps to reallocate resources and scale it up. We cannot spit at a fire and expect it to go out. If we are to finally have a truly humane, sustainable, tax efficient and supported program, there has to be a significant change in priority towards on range management.

One answer does not fit all but answers can be found in many areas. There are untapped resources outside the status quo from hunters to veterans to partnerships with livestock permittees and more. There are opportunities to be explored with the common goal of maintaining healthy herds at healthy numbers. And we at American Wild Forest campaign continue to stand ready and willing to assist and advise.

In conclusion, I ask the board to recommend that the BLM take concrete steps to reform its current management program by significantly scaling up humane fertility control programs even while an area is above AML. Thank you for your time today.

Tammi Adams

Good morning. Thank you for taking my comments. My name is Tammi Adams. I'm a representative of Wild Horse Education. I was in attendance at the Reno meeting and one thing that I requested there was that BLM continue or actually start to transparently provide range land health assessment data and AML calculations. That request has been not provided for by the agency.

One of the reasons that we asked for this data is, with the plethora of population control growth suppression that's going on, there has been a lack of studies of foaling seasons, the differentiation of foaling seasons, changes in behaviors of herds and individuals and changes in how we are looking at the welfare of the wild horses.

The Wild Horse Act mandates that we take into consideration the health and welfare while managing wild horses and burros. We have not done a good job of that at all. The BLM has not provided any studies at all of the effects of population growth suppression on wild horse herd, health and welfare. And even the NAS has stated in their 2013 report that this is very lacking.

This kind of information is mandatory as, when you were doing helicopter roundups, we're doing them during foaling season. As is evident by what happened in several places with a number of young foals, brand new foals that were found in September, October and even November. The changes in foaling season are evident yet BLM is refusing to do any studies of site-specific foaling seasons and the changes that have impacted the herds from population growth suppression.

Please, I would ask that the advisory board recommend to BLM that they start doing these kinds of studies to understand that cumulative impacts of population growth suppression on herd behavior, welfare and health. I thank you for your time.

Laurel Cherrier

Great, thank you so much. My name is Laurel Cherrier and I'm in Washington DC and the government relations associate with the American Wild Horse campaign. Currently the BLM is at a tipping point. We have a record high number of wild horses and burros and government holding facilities and the cost of maintaining and caring for over 60,000 wild horses is astronomical. In addition, without proper stop gates in place, the population management with use of roundups alone is ineffective and costly of taxpayers.

The public recognizes a need for change and also so does Congress. During the last two years, Congress has advanced strong bipartisan language supporting the use of fertility control and has urged BLM to appropriate a portion of their funds for the use of immuno-contraceptives.

This year, specifically the House passed language appropriating 11 million of BLM's funds to be used towards humane immuno-contraceptives fertility control. They call for partnerships with military veterans and wild horse organizations as

well as call for the evaluation of other and on-range management options such as relocation, which would keep horses and burros out of holding facilities.

Lastly, Congress urged the BLM to consider alternatives to the use of helicopters and man-fixed wing aircraft, marking the first time that Congress has urged the BLM to consider alternatives to helicopters. Additionally, Representative Dina Titus of Nevada has introduced the Wild Horse and Burro Protection Act of 2023. This bill aims to ban the use of helicopters for the use of roundups.

As experts in humane wild horse conservation, the American Wild Horse campaign stands ready and willing to collaborate with the agency in order to advance Humane Wild Horse Management. Currently the organization is working closely with the Utah BLM to further effective and humane management of the Cedar Mountain Wild Horses.

Today I am recommending for the BLM to increase its use of humane and provenly effective fertility control as well as reevaluate the use of helicopters during roundups. This recommendation is in line with the Department of Interior environment, a related agencies Appropriations Act of 2024. Thank you so much.

In Person Comments

Tom Allen

I'm Tom Allen. I'm representing the Public Lands Foundation whose membership collectively has thousands of years of experience professionally managing natural resources. No one in the foundation receives pay for foundation work.

When Congress determined that there would be no sale of horses and burros without limitation, it assumed the responsibility for the problems that exist today. You are all familiar with those impacts. Until the Congress fully funds a multi-year program, the only thing you can be certain of is that you or your successors will be here 20 years from now just as you have been around for 20 years in the past, plowing the same ground.

Full funding requires a multi-year effort that provides for gathering excess numbers, applying fertility control drugs, and providing for the ever-increasing cost of warehousing unadopted animals. We have two requests. One relates to funding and that is that you ask the BLM to develop a redlined, not a new original, but a redlined updated version of the 2020 report to Congress. That type of presentation will clearly demonstrate the cost of the failure to fully fund over the long term what it takes to manage horses and burros at AML.

Failure to fund in that way results in a cycle that's absolutely predictable. No matter how inadequate funding is allocated in that kind of a cycle, AML will never be achieved. The impacts and the cost will forever escalate along with the cost of warehousing animals that have the priority for BLM's funding. The second request has to do with research. And you asked BLM as we're asking that they reconsider research into sterilization of mares.

It's irresponsible in the face of horse and burro population control crisis that sterilization is not in the tool bag to be carefully utilized along with other methods. Previous efforts to do research in that area failed when potential partnerships with universities were terminated due to protests, I believe about the invasiveness of research on ovariectomy by Colpotomy.

But if you'd consider research in the other two methods, that is tubal ligation and laser ablation, both considered to be presumably invasive. Certainly, less invasive than castration as a board member noted some years ago. Thank you.

Peggy Coleman-Taylor

Hold on. Just going to the top here. I'd like to share a better solution to what I call the problem. The Wild Horse Fire Brigade provides a humane, cost-effective ecological solution for all stakeholders. In a world wanting more resources than ever financial considerations seem to be a driving force. What is a wild horse worth? Wild horse is so valuable in

According to Science Magazine and the NIH studies, by altering the quality and distribution of fuel supplies, large herbivores can shape the frequency, intensity, and spatial distribution of fires across the landscape. In order to accomplish the same task of deployed wild horses in a mitigation of let's say seven acres of grass and brush in areas of remote and difficult wilderness terrain, it would require two men about four to five weeks of work. \$15 an hour, would range about \$685 an acre.

A wild horse abates excess grass and brush fuel from wildfires on the same seven acres virtually at no cost. And in wilderness areas this is important since virtually all traditional fuel treatment methods used by the US Forest Service and other agencies are prohibited. Also, important to note that motorized equipment and methods are also law prohibited in wilderness areas. According to the US Forest Service even in areas where their most cost-effective method of fuel treatment is allowed, which is prescribed burning, the cost to taxpayers is about 400 per acre.

Of course, there are unwanted side effects to prescribed burns. Toxic smoke is released in the air and wildlife, especially reptiles, amphibious, and ground birds are overcome and killed by the smoke and heat. Further, still some prescribed burns become uncontrolled wildfires. Wild horses refer to as nature's farmers are monogastric digestions single stomachs and pass both humus and viable native plant seeds back into soils they graze, which restores fire damaged soils. This continues a life cycle of native flora as well as evolved flora depending on that flora.

You have HR section 1625313 human transfer excess animals that you can remove from the public lands to other government agencies for work animals. The wild horse fire brigade provide model relocating wild horses from areas of conflict and off-range holding facilities and rewilding into appropriate wilderness areas beyond conflicts with commercial livestock and mining enterprises. These actions can counter the ongoing genocide of American wild horses and mitigate catastrophic wildfires at the same time.

Other countries realize the benefit of wild horses for fire mitigation. Why doesn't the US? Little money is allocated to fund the study of American wild horses. Please support the collaboration with the Wild Horse Fire Brigade and their ongoing research and present fellowship education program in association with California State University Sacramento. Thank you.

Lisa Smith

Okay. Hello, everyone. Again, I'm Lisa Smith. I'm so excited to be here today. I am a Phoenix native. Rare these days, right? And I love my city. I love my neighbors. I've been a Vistancia resident for the last 15 years. This community in Peoria has experienced exponential growth over the past decade.

I understand the purpose of development and the value in that. I am not against development. I actually used to work for a commercial real estate developer where I was the VP of HR. I believe this experience gives me additional insight, which provides me a balanced view in my approach to what we're discussing today. It's because of the growth in Peoria that I'm concerned about the safety of my neighbors, the wildlife, yes, the burros and even the cattle.

Why am I concerned about the safety of my neighbors? It all started after seeing three burro vehicle collisions. Motorcyclists were down on the highway. I was there. I thought they were dead while we were waiting for the paramedics. Totaled vehicles. I love a nice-looking car, nice-looking truck. No one wants to lose money and the value of their vehicles and see insurance go up. And I know I do not need to mention what happened to the burros.

This all ties together my love of humans and also animals. I want to keep the burros safe, which keeps the humans safe. After being at the scene of three BVCs, I knew I couldn't sit on the sidelines anymore. Fast forward to about a year and a half and this is where I am today. I'm the founder of Loco for Long Ears. We are an educational and awareness group based right here in Vistancia.

Our goal is to be the point of contact and burro resource for our neighbors. That's why we have the fun name. People remember Loco. We seek to work alongside various jurisdictions to prevent the BVCs by improving fencing and signage while also educating our neighbors. Loco brings local volunteers to the table. We are ready to repair fences, make phone calls, attend meetings. You name it, we're ready to do it. We are supported by American Wild Horse campaign. I am a volunteer ambassador with them, and I happily bray for our Lake Pleasant burros.

With that easy example of our relationship with American Wild Horse campaign, the grassroots on the boots on the ground. This Sunday we have a Vistancia Farmers market. Loco has a booth there and American Wild Horse campaign has covered those expenses. Again, why am I here? I want to become a strategic partner with the BLM around the Lake Pleasant area. I want Loco for Long Ears to be the boots on the ground and that extra hand to help out when it's needed. Let's boost public awareness together. Let's reduce the BVCs. We do have a common goal and together we can achieve it. Thank you for your time.

Mr. Kuechle: Thank you. Okay. That concludes our comment period.

Mr. Kuechle announced a break for lunch

Panel Discussion: Livestock, Wildlife, Wild Horses and Burros and Landscapes

Marlo Draper, Eric Davis, Lynn Huntsinger, Dr. Esther Rubin, and Dr John Bradford

Ms. Carlisle: Thank you, everybody. Thank you, board, for coming back after your lunch break and thank you to the panel for being here today. And I'm going to hand it off to Dr. Paul Griffin to do introductions and get us started.

Dr. Paul Griffin, PhD thanked the board and provided an introduction of the panel topic as well as the panelists present.

Ms. Draper: Good afternoon and thank you for having us here with you today. As Paul said, my name is Marlo Draper, and I am the BLM Headquarters Division Chief for Forestry, Rangeland and Vegetation Resources.

Mr. Davis: I'm Eric Davis with the Forest Service Washington office and I'm in forest management, rangeland management, vegetation ecology, assistant director of Rangelands and Restoration. Ready whenever.

And slide two is up, so I'll let you read the missions and see how similar they are. Oh, it's still not visible down there. Oh, it is? Okay, good.

Ms. Draper: Okay. Congress gives both agencies the authority to manage rangeland resources and administer grazing. And those authorities obviously come from several federal laws and those laws are interpreted and put into regulation and those are the rules that we follow when we're administering livestock grazing on Forest and BLM public administrative administered lands. We're also required, both agencies allocate grazing and provide authorization for grazing through our land use plans. So, forest plans as well as BLM resource management plans. So, the allocations and approval, our authority to administer grazing, we ensure that we are in conformance with those land use plans. Our land use plans also allocate our resources for other uses, including wild horse and burro, timber harvest, recreation, and multiple other uses. So, when we are administering these programs, we are ensuring land use plan conformance, so we're achieving the outcome objectives for all resource management. It's taken into consideration when we're authorizing grazing on public lands.

Mr. Davis: So, we issue grazing permits. And what is a permit? That is a question that has befuddled many OGC, Office of General Counsel or DOI solicitors. The best definition that we have is a revocable license and real property that authorizes occupancy and use of national forest system lands for the forest service, or a grazing permit specifies grazing preference for BLM. And now's a good time to talk about the word preference. Almost nowhere else in federal or state or any other law is there this concept of preference. Usually, if either one of us have a timber sale and we issue a contract, whoever won that contract doesn't have any leg up to win the next contract. But that is different for grazing. If you have a grazing permit and you continue to remain eligible, US citizen, own livestock, own base property, and you have a good track record over the 10 years of your permit, you essentially, are at the front of the line.

Congress designed it that way to support and perpetuate family farming. So, preference is something that you probably don't see anywhere else in federal land management, but in grazing it is. So, there is no right to graze on public lands, with two exceptions. There are two tribes that have treaty grazing rights, the Nez Perce and the Shoshone-Bannock, and they're both on forest system lands. Those two tribes have some treaty rights to graze, but nowhere else. No individual, no other tribe has a right to graze, it is a privilege. And we set up terms and conditions that the permittee needs to make because we establish management objectives, a desired condition of the land in the future. And those terms and conditions involve when animals go on, when they come off, how many, sometimes what type. We are almost always agnostic as to the type of livestock, the exception being, we might say no domestic sheep if there is a concern of disease transmission to a wild sheep. But that's it. It's the permittee's call whether to graze cattle or bison or llamas.

Ms. Draper: So, I would like to add for the Bureau of Land Management that we, under the Taylor Grazing Act that was passed in 1934, basically, that was kind of following the Purpose of the Taylor Grazing Act was to ensure protection of our soil and vegetation resources and to prevent overgrazing. And in the Taylor Grazing Act there's Section 3 and Section 15.

So, the Bureau of Land Management has grazing permits as well as grazing leases. They are basically the same thing, but a grazing permit under Section 3 of the Taylor Grazing Act. Basically, these were located within grazing districts. Grazing boards were established at the time. These are larger contiguous

sections of public lands and as Eric mentioned, a grazing preference holder basically has base property that is used to have that grazing permit and that base property can be water, primarily, it's land and that is where the preference comes from, is the owner of the base property along with the public lands within a boundary, they have the preference to that 10-year permit. The 10-year permits are usually for a period of 10 years and when it's up for renewal, then preferences given to the current base property owner.

Under section 15 of the Taylor Grazing Act, we have leases, and these are areas that can fall outside the grazing districts. They are scattered parcels of public lands, but the permits and the leases are managed basically the same. And they do specify terms and conditions, numbers, season of use and the preference holder.

Okay. So, as we stated, both agencies have grazing permits and they are normally for a period of about 10 years. Although the permit is to the preference holder, we authorize grazing on an annual basis. So, our permittees and our lessees make an application each year to their local office, and they specify, basically, the numbers that they prefer to run that grazing season. They work very closely with their range line management specialists and their line officers. They take into consideration resource conditions and climate conditions such as drought when they're making that application. When that application is approved, a grazing bill is issued. And when that grazing bill is paid, that is basically the permittee or the lessee's approval to graze that year.

Mr. Davis: And I'd like to emphasize that when we issue a permit for 10 years for a hundred head of cattle, that is not a guarantee that the permittee can put a hundred head of cattle out. Every year, we'll be making that assessment based on resource conditions. So, we do manage each year. Next slide. Intentional management of grazing animals, we can control the frequency. It is possible that we don't allow any animals to go out in a certain year if the drought was really bad. Intensity, we can reduce the numbers, we can reduce the on date or the off date. We are trying to achieve land management objectives and use livestock grazing as a tool to get there. So, this is unlike wildlife or wild horses and burros that are eating 365 days a year. We do make adjustments every single year.

Ms. Draper: The majority of our livestock operations follow what we call, allotment management plans. And the allotment management plans also take into consideration the entire ranching operation. So, it does not necessarily just apply to the livestock management while livestock is present on public lands, but it basically, is a holistic approach to managing that operation for the year. We mentioned earlier that grazing permits are usually for 10 years, and we go through a process to renew those permits and that usually includes an assessment of the monitoring data and the trend condition data that the agencies have been collecting over time. That takes into consideration all the resource conditions. It informs our NEPA analysis, and it informs the grazing decisions that we issue in order to renew that permit. That's not

the only time a permit could be given to a new preference holder. When that base property transfers, that new preference holder will make application for that permit or lease and the agency will go through an administrative process to formally transfer that permit or lease.

Also, during that time, whether it's a renewal or a transfer and really under our regulations at any time, our authorized officer can assess the condition of our public lands and make adjustments to livestock numbers based on resource conditions and other uses.

Mr. Davis: And you might have heard of third-party buyout, there is no such thing. If Bryant and Tracy here apply and get a permit, they can have that personal convenience non-use for a certain number of years, but they cannot fail to put livestock out for the 10-year period. That is a violation of their permit. The permit requires the occupancy and use because we're trying to achieve land management objectives through grazing. So, you might hear of people who are opposed to livestock grazing on federal lands, like, "I'll get the permit and then I just won't put any animals out." That can't be done. Well, it could be done for a year or two I guess, and then they would be in violation. Next slide.

Non-compliance, it happens. It doesn't happen often, but it happens. We look at the permits every year. We can have a full or partial suspension of numbers that could last for any number of years. We could have a full or partial cancellation of permitted numbers that would last through the duration of the permit, and we can reduce the seasons of use, either have a later turnout or an earlier off date. So, when we find non-compliance, we address it. I'm pretty sure that neither agency is 100% effective. Sometimes there's non-compliance we need other people to tell us about and then we investigate and take proper action.

Ms. Draper: In 2016, the Government Accountability Office completed an audit of both the Forest Service and the BLM for our management of unauthorized use, also known as trespass, under certain sections of the regulations. And one of the findings in that audit is that, both agencies preferred to handle unauthorized use informally and provided recommendations to both agencies to make a more concerted effort, formally documenting all instances of unauthorized use.

Backing up to previous mention of taking non-use, BLM also has a limitation in our current grazing regulations of the number of years a permittee can make application for non-use. Under our regulations, there is a definition of what qualifies for a permittee or a lessee. They must be engaged in the livestock business in order to hold that permit or lease. So just wanted to clarify, whether you're a corporation or an individual, you must meet the definition of a qualified livestock operator.

Okay. And here's some statistics and a glowing difference between the two agencies in the number of permittees and acreage that we manage in both range land and grazing programs.

Mr. Davis: And Varlin is one of those 18,000 permittees for BLM. And with that, I'll ask Paul if we are taking questions now or after the whole panel goes?

Dr. Griffin: I think it would be best if all the panelists got a chance to make their introductory remarks first. So, with that, if Dr. Huntsinger could get on the line and then we will turn it over to Dr. Huntsinger next, followed by Dr. Rubin. Then Dr. Bradford.

Dr. Huntsinger: Thank you. Thank you very much, Paul. I enjoyed the presentation and I want to build on it a little bit and maybe elaborate a little bit. I was an author of the last National Academy of Sciences report on the BLM's Wild Horse and Burro Management, but I haven't been involved very much since then. But we really learned a lot as a result of that report and I'm interested in learning more about what's happening actually, right now.

The whole issue is full of all kinds of contradictions and on the basis of our work on the report. Some colleagues and I wrote and published a paper saying that the wild horse problem is a vexing social ecological mismatch. But even within the scientific content or recommendations, there are a lot of contradictions. So, a few of them, I mean, my short story on

all of that is, that we're working with a form of wildlife, according to the policy, where the main management tools that we have to try to protect environment and endangered species and everything else, are unavailable to us. And that would be relocation, natural control and hunting. This is a problem that actually vexes all kinds of reintroductions of large ungulate grazers around the world, but you really see it here where you have legislation that calls for maintaining a thriving ecological balance. And ecological processes often require animals to suffer and die as a means of control. And that's also precluded by the legislation, as is hunting and these other things I've mentioned that we use with wildlife.

The second thing is, that we are left with a form of domestic animal where the main management tools we use for domestic animals are not available to us either. And Eric, I believe, did mention some of those. We can take domestic animals off the range whenever we like. We can limit their numbers, the timing of use and how often they're there. We can exclude them completely; we have control over those animals. And a horse is somewhere in between, a wild horse as they're referred to in the legislation, as somewhere in between those two.

And we're unfamiliar with, for the most part, and having struggled with what are the means of managing these animals because they have a pretty good population control. In the report, we say 20% population growth rate in many cases. So it's a lot. And it contradicts with, as I mentioned, the ecological dynamics and natural processes on a rangeland or any place else where natural control processes, which aren't pretty, control the species. We don't have the predators that can control wild horses. We don't have cheetahs in the United States. Animals that hunt running ungulates are fairly rare and wolves are also limited in distribution, they might be a predator, and so on. So it's a difficult thing.

And one of the main issues that we face, also, one of the big contradictions, is between stocking rates and carrying capacity and the actual ecological dynamics of arid and semi-arid rangelands. They're not the kind of place where you can use really, a set stocking rate. And Eric mentioned that, for livestock, for cattle, you can readjust every year, depending on conditions and so on, and the weather and all of that stuff. And in arid environments, semi-arid environments in the western United States, scientists have characterized them as a non-equilibrium environment. It's an environment where it is impossible to establish a steady state relationship between grazing animals and the forage that they rely on. In other words, as politically and socially, we would like to know, this is the right number and we're just going to keep it at that number, and everything will be fine. But our western rangelands are so stochastic, the forage production, the water availability, all of those things change severely all the time, every year.

And then we've got climate change on top of that. Fire, drought, these are not exceptions in western rangelands, they're common. And so, a single steady state number for wildlife or horses, wild horses cannot be established. It just can't happen. What you need to do, I mean, the traditional way of establishing a "target stocking rate" for livestock is to look at what's gone on in the past, assess the conditions of the rangelands and set the stocking rate accordingly. And then, to keep monitoring over time and changing how you're managing the animals to adapt to this very stochastic environment. In a year with a severe drought, maybe there's no grazing at all. That, of course, is very hard on the livestock producer, but that's sometimes what has to happen.

So, when you have the tools that I mentioned earlier of moving, feeding, adjusting numbers and timing, you can cope with that if you have good monitoring and if you're able to adapt and have flexibility. Those are two real keys. And they have been for traditional grazing peoples for thousands of years all over the world, is moving animals away from areas where there's a drought or there's a big problem. Anyway, that's a contradiction. When you can't use hunting, you can't use natural control in a drought, in a wildlife scenario, wildlife will die, or they will lose fertility. And so, numbers will come into balance because there's nothing for them to eat in a truly droughty year. But we aren't precluded, we're precluded from doing that or allowing that with wild horses. And sometimes that can also result in damage to rangelands, given the way that we have fragmented rangelands in the United States.

So that was one point I wanted to make, is that we're faced with a non-equilibrium environment where adaptability and flexibility and being able to change things regularly is critical and yet, with wild horses it's very, very difficult. It takes time and not everybody agrees with it. And I'm afraid that it's the land that ultimately suffers. Of course, we need absolutely good, excellent monitoring in this system because the one thing you need to do is, adapt in this kind of environment and you adapt on the basis of monitoring, how are things changing? You might set an AML or a caring capacity early on, but you have to expect that to change over time. And of course, we know, I guess you had your last

session on climate change. We know we're facing big changes for everyone on our rangelands in terms of what they can and cannot support. So, we're going to need really, really good monitoring. And if we could do just in time monitoring and somehow adjust course numbers to accommodate that, it would be great. But that's very difficult and I don't see that happening.

Let's see. So, another thing is, that our traditional models for measuring ecological health, they've been changing a lot. And because we're realizing that monitoring distance from some supposed climax, the traditional way of evaluating rangeland conditions doesn't work well in these environments either. They're capable of existing for long periods of time in different kinds of vegetation configurations that are very stable, and it might be shifted by a drought or shifted by a fire or shifted by impacts that are completely out of our control. And so, understanding what states desirable and what states are not, what states protect endangered species, which are protected in this scenario, the soils and water supplies and so on, is really important. And in our report, we recommended that ecological site descriptions, which can develop models that reflect all these alternative stable states, and what you need to manage for is a state that accommodates grazing.

A climax condition is almost, by definition, one where there is no grazing by horses or cattle. So that's clearly not a reasonable target, but some of those vegetation states can accommodate all these multiple uses and those are the ones we need to think about for management goals, for reference states and ecological site descriptions, which I think are still undergoing the development of those on the public lands, I think is a vital way to enhance our monitoring and management capabilities. I believe that was my main points and I love discussion so I'm just going to stop now, and I hope we can talk more during the discussion period. Thank you.

Dr. Rubin: Thank you. I'm Esther Rubin and I'm with the Arizona Game and Fish Department, and we'll see if we could get some slides up there. And while we're getting the slides going, I just wanted to mention that I oversee the research branch at our department. My background and training is in ecology, with a degree in ecology from the University of California with an emphasis on conservation biology. Next slide, please? The Arizona Game and Fish Department is mandated to protect and conserve all species in Arizona, in trust for the Arizona public and for future generations of the Arizona public.

We manage over 800 species of birds, reptiles, fish, and mammals. That's more than any other state that's not a coastal state. We have over 531 species of greatest conservation need that we deem as needing some special attention and monitoring that are not common. We have 93 Tier 1A species which are species that are endangered, federally endangered candidates for listing and such. And we also have about 40 endemic species that are found only in Arizona. And again, we are mandated to manage and protect all of those for future generations. Next slide, please?

So, this wide diversity of species needs habitat. Arizona is really fortunate to have a very diverse habitat in flora. We have nearly 4,000 species of native plants. We have high diversity of altitudes and climate. We have transition zones between major deserts, and we have many habitat specialists. We've got riparian obligates, grassland obligate birds, cold water fish species. All these species rely on the habitat. I think of it sort of like the stage for the actors. Next slide, please?

In the midst of this, we have a lot of horses and burros. This slide just shows the 2023 BLM estimate. In the blue, you can see AML. Collectively, we should be at about 1600, but our actual numbers on BLM administered lands are around nearly 7,000. So collectively, that's 398% of AML, which is quite a bit over. But a really important thing that I'd like to mention about these numbers is that this is not all of our horses and burros. This does not include equids on Forest Service lands. It does not include equids on tribal lands, where we know we have tens of thousands, and it does not include burros, primarily, but also, horses that have moved quite a far distance off of HMAs. We are aware of burros that exist miles and miles from areas where they are surveyed.

This indicates we have more horses and burros than we're supposed to, but it's very much not the full picture. Next slide, please. So, the agency has a number of concerns about this, of course. We're concerned about the effects on wildlife habitat, wildlife populations, effects on the recovery of threatened and endangered species. We also have concerns about human safety. We've had quite a few motorist collisions and we are also concerned for the welfare of horses and burros in the state. In the interest of time, I'm just going to be talking briefly about our concern about wildlife habitat. Could I have

the next slide, please? So as an example of our concern about wildlife habitat, I wanted to mention riparian habitat. As you can imagine in the arid Southwest Desert, riparian habitat is a unique and limited resource. It comprises less than 2% the total land area in the Southwest. It supports the highest numbers of species when compared to other habitat types, and in Arizona, 80% of our species use riparian habitat and 50% are considered riparian obligates. Next slide, please.

But we have a concern about that. The horses often concentrate near water sources and in these riparian habitats, degrading the vegetation, also destabilizing soil, trampling. A study out of University of Arizona found, for example, that in some of our montane riparian systems where there were horses, cattle, and native ungulates like deer and elk, that horses use the areas closest to the stream banks more frequently than cows or elk, and then higher potential for negative impact on riparian and aquatic species. So that's a concern about one of our unique habitats. But I also want to talk about a very widespread habitat that's very prominent in Arizona and in other states in the Southwest, and that is our beautiful Sonoran Desert. It's a very widespread habitat, and it's home to long-lived and very slow-growing plants. And it's an environment where environmental effects are difficult and slow to reverse. Next slide, please.

In the Sonoran Desert, I think a lot of folks don't really recognize how old some of these plants are. So, some of our iconic species like the ocotillo on the top left and our saguaro on the top right. These plants live decades and decades and many of them live over 100 years. Some of the saguaro, as you'll see, will be well over 100 years old, very slow growing. We also have plants that are not quite as well recognized but are incredibly important. On the lower left, we have ironwood trees. On the right side, we have paloverde trees. In these photos, they may actually look like bushes because their natural growth pattern is that they grow low. They create these wonderful shaded little microhabitats. And in the Sonoran Desert, I think many of you have spent time in the desert, but middle of the summer when it's 115, 120 degrees day after day, very hot, these little microhabitats create shade.

Especially the ironwood, it's consistent shade that's year-round and also for the paloverde, and they have really been identified as little islands of diversity. They've also been referred to as nurse plants because they nurture and protect other species that are dependent on that extra protection to get going. So, on the right side, you can see that there's actually a saguaro growing out of the paloverde tree, and that's a very common thing that you will see in the desert. Even large saguaro, sometimes they have these old decaying paloverde trees that they have outlived that nurtured them and protected them when they were young. So, this is a very important part of the structure and the function of these very long-lived old desert plants. The challenge though is that the burros, I'm going to talk mostly about burros because that's, in the Sonoran Desert, the primary equine of concern, they also seek out these trees.

They seek them out for shade and for vegetation because they have year-round vegetation. They are very much impacting the integrity of this ecosystem. Next slide. When our paloverde trees and our ironwood trees are used as shade consistently by too many burros, they end up being hedged and they end up being denuded. And what this does is it's not only going to kill that tree eventually, but it starts unraveling the integrity of this long-lived ecosystem that relies on these large trees for the long-term recruitment of desert plants and sustainability as well. Next slide. Our commission has, in the last several years, come up with two resolutions. Next slide, please. The first one, and I've just pulled a couple excerpts out of here, requests that the Federal Government immediately initiate all tools to control excessive populations of feral burros and formulate and implement a plan to reduce the adverse impacts.

And then more recently, we also have a resolution requesting the Federal Government to use all measures available within rule or regulation and remove unauthorized feral horses present on the Apache-Sitgreaves National Forest. We are not alone in this concern and the resolution. In 2017, the Western Association of Fish and Wildlife Agencies also developed a resolution urging the BLM to develop an action plan using all management tools available, as authorized under the act, to remove excess horses and burros, and I wanted to emphasize this part, including animals that exist outside of established herd management areas from public rangelands as soon as possible. And again, we're not alone. Just about three months ago, the Association of Fish and Wildlife Agencies developed a resolution.

This is representing all state wildlife agencies in the United States, and they also requested that the responsible committees of Congress appropriate full and consistent funding levels for wild horse and burro management and requested the BLM and the Fish and Wildlife service to use all measures as authorized by the act to remove wild horses and burros that exceed established AMLs, and again, removing animals that exist outside of HMAs as soon as practicable.

So, my main point is that the concern about excess horses and burros in the landscape has not been lessened in recent years. Wildlife agencies are continuing to be very concerned about this and the damage is occurring as we speak. There is an urgent need to reduce numbers on range. So that's just my opening points. Thank you.

Mr. Kuechle: Thank you very much, Dr. Rubin. Dr. Bradford?

Dr. Bradford: Hello, everyone. I'm John Bradford. I'm with the US Geological Survey, but I'm not a geologist. I'm a biologist. I study dryland ecosystems, so water limited places, grasslands, shrublands, forests. I think about climate change, what that means for drought, how that's likely to impact the vegetation in these water-limited systems, mostly the upland vegetation. Riparian is a whole different ball of wax. And then I try to help resource management agencies think about what that means for managing. What I have here is just a few slides that are going to build a simple table that has some of the big picture general findings, not just from our work, but from a much larger body of literature about what we expect climate change to mean for rangelands in the western United States. Starting with some temperature related effects, there's pretty obvious evidence for continued increases in temperatures.

There's some uncertainty in exactly how fast or how much those increases are going to happen. Certainly, greater increases in scenarios with greater elevated CO₂. What that means, among other things, is earlier spring thaw and later fall frost, so longer growing season in places where that's possible, if there's sufficient water. And, in general, a shift from snowfall to rainfall in those shoulder seasons as temperatures go up. This is a good time to just pause and point out that in the upper right there I've designated some levels of confidence from high confidence characteristics in red, medium confidence in blue, and then lower confidence in gray just so you get a feel for the reality that climate change is fraught with uncertainty, but there is more or less confidence in different things. So next slide.

Thinking about what expectations are for precipitation in western rangelands, there's a pretty clear latitudinal regional difference between the northern part of the western United States where expectations are for stable or possibly modest increases in precipitation versus the south part of the west where projections are more stable or possibly decreasing precipitation. There's a potential shift toward more cool season precipitation. That's more evident in the northern parts of the western rangelands. And then potential increasing monsoon activity. Obviously, that would be in the southwestern part. And both of those are relatively low confidence. One key thing to note, right off the bat, is that all the temperature related stuff is pretty high confidence because there's just a lot of certainty in that, a lot of consistency, both in past observations of what's happened and in the model projections of what we expect in coming decades.

By contrast, precipitation is much less confident and much less dramatic. Those both influence soil moisture and drought, and this is really where dryland plants get their water. So it's really critical to understand this to understand what the future holds for vegetation. In terms of soil moisture and drought, one obvious thing is that higher temperatures are going to equate to higher atmospheric demand for moisture. This just means that water's going to be pulled out of the soil at a faster rate. The big picture there is that with increasing temperature, if we don't get elevated precipitation, that results in overall less growth potential in water limited places and more extreme drought. That's what higher temperatures mean. A lot of evidence that the summer dry season in the west is going to be both longer and hotter in almost all places. That's a pretty consistent result.

And then the third thing to think about for soil moisture and drought is that there's a lot of expectations for enhanced weather variability and extreme events. And this is both because the temperatures are increasing, which means that a hot year in the past is going to be even hotter in the future. So that means more occurrence of events that are not within the kind of expectations that we've had from the past, and because the actual magnitude of variability in year-to-year events is increasing. Both the change in that range and an increase in variability results in essentially more extreme events and more of the, I think, challenges in terms of what Lynn was talking about of these systems are non-equilibrium systems. And as we increase that variability, that non-equilibrium characteristic is likely to become even more pronounced. Next slide.

Well, what does this mean for plants and forage? First thing is that there's a lot of evidence for at least some enhancement of wildfire activity. This is in areas with sufficient fuel. I put modestly on there. I think it's worth noting that in a lot of the

forested systems in the west, there's more clear evidence for maybe what you might call substantial or dramatic enhanced wildfire activity. But in a lot of rangelands, the fuels are a limitation. And as we go forward, yes, fire weather is likely to get more extreme, but if there isn't sufficient fuels, then it's hard to get a fire to carry. So, it's a little bit different in rangelands than it might be in some of what we've been seeing and expecting in forested systems. The soil moisture and drought projections for a longer, hotter dry season means that we do expect increasing summer drought stress and potentially, in some places, more cool season plant growth if there's sufficient moisture and temperature in the cool season in some areas.

This is going to all mean that we are very likely to have changes in plant growth and overall forage production. There'll be some areas of decrease, almost certainly, as temperature increases, and less precipitation is able to keep up with that increasing demand for moisture. There may be some areas of increase in terms of forage production, probably less widespread and perhaps less dramatic. We're also expecting to see shifting plant communities. Probably all the projections are for increasing potential for invasive annuals. The cheatgrass story across the west is not likely to go away. There's other invasive bromes. Those are likely to increase. In terms of perennial grasses, if you think about warm or cool season perennial grasses, the warm season perennial grasses may experience increases in places where there's sufficient moisture. But the cool season grasses, which is a huge part of the perennial grass component in large parts of the northern part of the Intermountain West, are likely to see declines.

And so that transition from the cool season to the warm season is a big question, how that's going to unfold. Some places may experience increasing shrubs as the grasses have a harder and harder time. All right, next slide. And then lastly, what does all this mean for management? It probably means probably a lot of things. One is that the restoration of drylands is likely to become even more challenging, and the challenge of post-fire restoration in these Western landscapes is a big problem. These places burn and it's hard to get the native plants to come back in part because, in these dry environments, most years just don't support plant establishment. They're too dry. It's really difficult to get them back. That's likely to get worse as that summer dry period becomes longer and hotter.

Habitat loss and fragmentation, which has been increasing in the last few decades, is likely to continue as these disturbances happen and recovery is uncertain. All that means that protecting and growing high quality habitat, high quality areas may likely be increasingly important in the context of these challenges. And maybe that's just the bottom line that I'll end with is that part of what climate change means is the future is going to be different than the past. We have some perspectives on what that's going to hold, but the bottom line is it's probably going to make a lot of the challenges that managers face just a little bit worse and a little bit more uncertain. I'll stop there.

Discussion

Mr. Kuechle: Thank you very much. Dr. Bradford and all the panelists. Dr. Huntsinger if you could be available again for any questions that might come up. Chair Carlisle, I think it's all on you.

Ms. Carlisle: Thank you to the panelists and Dr. Griffin. Again, because it's a little hard for me to track on Deputy Director Branham and Commissioner Pearson, if I could have a little help gesturing, if you all have questions, I'll try to do a little bit better at making sure I tune into that. But poke at us any way you can, wave, and we'll all watch. So, I'll go ahead and open up the floor to the advisory board to start in. Anyone ready? Commissioner French?

Mr. French: Thanks for taking the time with us today. It's kind of daunting. I think that the variables are increasing, not decreasing out on the ground, and the interspecific relationships between all of those variables are becoming much, much more complex. A couple of things though that I wanted to just state for the record coming out of your comments has to do with some of the comments that had to do with the inability of using horses as a way to manage vegetation that is type-converting. Obviously, and we had a great presentation having to do with loss of the variability and the ability to control horses in terms of where they are, how much they use, the timing and season of use and the types of plants that they're on. But that doesn't mean that we don't have tools in the toolbox still.

And I think it's important to note that highly managed ungulates, whether you want cows or llamas or whatever, as long as we're able to manage where they are, when they're there, and what they're eating, we have a tool in the toolbox that's going to help us with regard to type conversion of invasives. And I think that's a tool that I think, from a standpoint of range management perspective, I think is something that all of us are going to have to embrace down the road. The argument though that to convert livestock use AUMs to wild horse use eliminates that variability or the ability to manage specifics. And so, I just wanted to say that for the record, it's not feasible in most environments to utilize that ungulate in that environment.

The other thing I wanted to talk about or ask about has to do with some of your comments from the BLM side of it having to do with grazing preference. And I know there's been a huge debate on the ground, at least in Nevada, around the discussion of a preference or a right versus a privilege. And I think there's a lot of ranching folks out there that feel through the Taylor Grazing Act that they have a right to that land or to that grazing resource. And I think there are people who are looking at the circumstances that we're faced with right now thinking that it's more like a privilege based on conditions on the ground for that particular grazing cycle. And I'd like to get your comments on that as to what the stance of the Bureau is with regard to that right now, try to flesh that thing out right now. Thanks.

Ms. Draper: Well, to the best of my ability and my subject matter expertise, under our current regulations for grazing administration in the 48 states, that's 43 CFR, basically 4100 regulations, has a definition for grazing preference. And that established under our authorities with the Taylor Grazing Act from 1934, as you mentioned, and also our authority to administer grazing under FLPMA, preference is that base property provides that preference for a qualified livestock operator to hold a grazing permit or a grazing lease. There is no right, as it's used in the regulations as you refer to, that authorizes a permit holder to have that permit or that lease. The regulations state preference, not a right.

Mr. French: So basically, then the preference refers to the holding of the permit, but not necessarily the specifics of timing, use, AUMs, the volume of forage that is harvested under that permit?

Ms. Draper: The Bureau of Land Management authorized officer is the party that designates the season of use and the permitted numbers on that permit or lease. The preference is not tied to the permit numbers. Preference is tied to the permit or lease itself. The agency designates that allocation for our ability to administer grazing. So that allocation is set in our land use plans and the permit is the actual authorization for that permittee to hold that permit. But the specific numbers and terms and conditions and season of use is set by the authorized officer.

Mr. French: Okay, thank you.

Mr. Davis: The Forest Service is slightly different. The origin of our laws is not the Taylor Grazing Act of thirty-four, but the Granger-Thye Act of '50. FLPMA and... Not FLPMA. Same thing, FLPMA and Multiple-Use Sustained-Yield Act are the same, but the concept of preference is the same. Preference is not related to the numbers or the timing or duration. It is the person or a legal entity, occasionally, to get another permit when the first one has expired.

Mr. French: Okay.

Mr. Davis: And I'd also like to say that, for us, there are eligibility requirements like being a U.S. citizen and then there are qualifications, and that is owning the base property and the livestock, for us. We issued our first grazing permit in 1904. We have been sued many times over the years about whether there is a right to graze. We have not lost a lawsuit yet. That there is no grazing right for anyone in the United States except those two tribes that have treaty grazing rights. We are looking at the concept of preference is in U.S. code. Within our directives, our agency directives, we talk about the owning the livestock and the base property.

So that is in our directives, and as part of our rangeland futuring effort, we are taking a hard look at how we are managing our entire rangeland management program and, "Should we make changes? The way we've done it in the past, is that really the best for the future?" So, we are looking at some of those questions about, "Do we need base property and the

livestock owned in the same person? Could leased livestock qualify?" So, we are looking at some of those things. But preference is U.S. code, some of the qualifications are agency specific.

Mr. French: That brings to one follow-up question really quick, if I might, and then I'll shut up. So that leads to a question having to do with change in preference. As you're well aware of, and certainly in Nevada right now, there are a number of allotments that have been impacted, livestock allotments that were impacted because of an increased number of wild horses-

Mr. Davis: Yes.

Mr. French: obviously trying to deal with the carrying capacity. How do you reconcile that? I know, given the specifics of the act and given the specifics of what we're trying to do with multiple use and sustained yield, how do you reconcile that?

Mr. Davis: That is one of the most difficult things that we have to deal with, because when you have excessive numbers, especially like Nevada, we still need to look at the conditions on the land when we are issuing permits or those annual operating instructions, and the conditions on the land, whether that's if they're degraded because of drought or excessive wild horse and burros, we need to be managing for the land. And that's tricky, because there might be a decrease and it wasn't because of improper grazing by livestock. That's a tough one for us.

Mr. French: All right. It speaks to the preference question is where I was going with it.

Ms. Draper: For BLM, under our grazing regulations 4180, we have the fundamentals of rangeland health, and through resource advisory councils, we have established standards and guidelines for grazing administration. We collect monitoring and trend data that assess the indicators that have been developed through the resource advisory councils within the standards and guidelines. So basically, through our land health assessments, it's an interdisciplinary approach to collecting the data and assessing that data. The methodologies take into account all authorized uses on public lands, and there's a determination of potential causal factors that could be limiting the attainment of our standards for land health.

And that determination identifies those causal factors or factors that may be contributing to the non-attainment of standards, and then there'll be recommendations for where the authorized officer needs to make changes. And those changes are dependent on what the contributing causal factor is to non-attainment of the land health standards. If grazing is found to be that causal factor, grazing is the only program in the agency at this time that we are required before the next grazing year to take action. When there's been a determination that we are not meeting the standards for rangeland health, changes in livestock raising must be made by the next grazing cycle.

Dr. Iacona: Thank you. My question is related to this conversation that's been going on and specifically what you were saying, Eric, about how the Forest Service uses grazing. The way you said it, it sounded almost like you use it as a management tool to achieve ecological objectives. Can you talk about that a little bit more? What exactly are the objectives that you are aiming to achieve by managing grazing and how do you determine whether you are making progress in that direction?

Mr. Davis: I'll give two examples. So one is outside of our permitted livestock grazing program where we sometimes use grazing animals, usually goats, to control vegetation for fuel reduction, especially common in Southern California and the Chaparral. But we're also looking at targeted grazing for fuel reduction in wildlife urban interface areas around Dallas-Fort Worth and fuel breaks in the Black Hills of South Dakota. So that is livestock grazing that is outside of the permitted part that we normally talk about. But within that, moderate levels of disturbance, increased biodiversity. So especially on the Great Plains, we look at the botanical biodiversity and the responses of grazing. There used to be millions of bison, and I'm not saying that they graze exactly the same way, but it's a disturbance regime. Removing grazing would not provide the ecological health that we're looking for. Obviously, you can have too much grazing, but you can have too little as well.

Dr. Iacona: It sounded like when you said it before, that the grazing leases that you administer, you take this into account when you're considering... I don't remember the language that you used, but how many animals are allowed on each year. Is that accurate?

Mr. Davis: Yes, it certainly is the national policy. And I'll correct one little thing. We don't have any grazing leases. BLM has all the leases, a nuance in the law that probably isn't important, but we certainly look at ecosystem health as a goal. The reason we have livestock grazing is not food production. It is part of our land management plans, commonly called forest plans, that have desired conditions of the land.

Dr. Iacona: Thank you. Very interesting.

Dr. Perryman: Yes, this has been great.

Ms. Carlisle: One of the speakers wants to weigh in before we-

Dr. Perryman: Yes, go ahead.

Dr. Huntsinger: I can't speak to BLM or Forest Service policy, but in California, grazing is one of our main tools for reducing our biomass of invasive species so that our wildlife and native plants can flourish and also to reduce fire hazards. So I think those are very viable goals for livestock grazing, at least in my region.

Ms. Carlisle: Thank you. And then Dr. Perryman.

Dr. Perryman:

Okay. For the sake of our viewing audience and those that will view it in the future, we have to make sure that we avoid falling into this hole or this trap of trying to compare land attributes today with what we might perceive that they might have been 170 years ago or even 50 years ago. Things change. There's a natural range of variation. It's been getting warmer since the end of the little ice age, and so these allusions to what it might have been or what we think land attributes may have been or plant-

Dr. Perryman: What we think land attributes may have been, or plant community attributes may have been even 50 years ago, they're not helpful. What we can do, and I think the panel has articulated it pretty well, is that we can look into the future and we can decide what we want in the future, and we could manage for that. And I've been saying this, using this term for years, is we need to manage so that we can maintain our options for the future. If the topsoil's gone, I don't have many options when it comes to wildlife habitat. And so, if we manage so that our options are still available to us in the future, that's about the best we can do. And a great example of that, talking about USGS has worked with climate changing attributes. What we found in our research is that the Pacific decadal oscillation, at least in the Great Basin, is highly connected to the recruitment of sagebrush. You can only assume other species as well.

And so, there's these very exacting conditions that only happen about, depending on the species, every eight, to 10, to 12, to 25 years that you actually get recruitment into a population of whatever subspecies or subspecies of sagebrush as an example that you may be dealing with. And it may only happen three or four or five times a century, over the last century. And if those conditions change, anything that happens that changes that Pacific decadal oscillation, the sensitivity of it, whether it's the signal is stronger or weaker, or how it moves around within the cycle because there's cycles within, cycles within cycles, and it's becomes very complex.

And that precipitation joins up with the soil conditions in order to make sure that that recruitment into the population occurs. You've got to have a year that has precipitation in soil enough, or usually with the adult plants, it's a whole different set of requirements to keep an adult plant alive than it is a little baby sagebrush plant. But there's got to be a year where there's enough precipitation to generate viable seed. And then the next year there has to be enough precipitation to

get that seed germinated that sits on top of the ground. That's about 2 million of them per pound, and it has to be light stratified so you can't bury it. If you bury it, you'll kill it. And then you have to have enough precipitation at the right time to germinate it and then to sustain it through that first growing season. And so, you end up having to have about three years in a row that are just the right kind of year given you already have the right kind of soil conditions, in order to get a group or a cohort of sagebrush plants to establish within a sagebrush community. And it may only happen three or four times a century, maybe less. And so, a fire that goes through, a wildfire that goes through in a place that we don't want it to go through because that area provides some kind of seasonal habitat, say for sage-grouse, and we have no control over it, that becomes a problem. And so, we try to control, we try to have a say in plant community attributes so that we can at least have a modicum, at least we like to think we're in control maybe of where wildfires may go and where they may not go.

And fuels management with livestock is a great tool for doing that. There's all kinds of publications and science on that aspect of things. But back to the soil, anything that disturbs the soil on a large contiguous area, like some of these areas where these horse populations are so beyond where they ought to be, in these areas like that, I know areas that haven't been grazed by livestock. They've taken voluntary non-use for 40 years. 40 years. Many of them, 10 years, 20 years. They've just not turned out. There's nothing to turn out. There's nothing there for a domestic animal to consume and be profitable. So, there's no reason to turn out. And so, these areas that we're concentrating on, we're not picking on horses, we're picking on, there's too many of them there, and they're causing this ecological damage to the soil that works in conjunction with the Pacific decadal oscillation that grows sagebrush and other plants out there.

And so, this is an extremely complex issue. It's not something you can read on the internet for a minute and a half, and no more than this panel knows here. And so, the timeliness of attempting to get some of these areas under control is in some of these areas, it is passed, the damage is done. I know areas where we've lost six, eight feet of topsoil, it's gone. 1,000 years, 5,000 years to develop that resource back. It's irreparably changed, at least in my lifetime and a timeframe that's important to management. So, I appreciate the panel talking about these things and it really reinforces the imperative that we have to get a handle on these populations where they're overpopulated and try and bring some semblance back so that we can maintain our options for the future on these public lands. And I love these public lands.

Nobody else in the world really has what we have. They are a blessing. And we need to make sure that we exert the right kind of, or our best form of stewardship. And for lots of reasons, and I don't want to get into it, we haven't done as well in the past as we would like to, but moving forward, moving forward is all we can really control. And I appreciate the panel sort of bringing this to the forefront for the board today. So, I yield back.

Ms. Carlisle: Dr. Lenz.

Dr. Lenz: My questions are directed at Dr. Huntsinger. So, you did, in my opinion, an outstanding job at concisely explaining the situation, the challenges, and I'm sure you've thought about this quite a bit. So, I'm just curious what your thoughts are on the best approach to resolve the overpopulation of horses and burros.

Dr. Huntsinger: Oh, that's easy. No, I'm just kidding. That's really difficult. And I don't know. In our report we proposed a contraception, we need better technology for that that might be socially acceptable and feasible to control numbers. Now, one of the papers that came out of our report was that we're spending really a fortune feeding wild horses off the range because they're not all adoptable. So that's another aspect to this problem. But it's a lot of money every year to feed these horses. So that's another aspect to the problem. So, contraception came out and it's difficult in range line situation. You don't want to handle the horses a lot. Rounding them up is difficult and costly, and a lot of people don't like that. So that was what we saw as the best way out. I've been thinking about places in Europe where they have, this is a personal thing, but I've been thinking about places in Europe where they have wild horses, but they're managed like the Camargue in France and there's places in Spain too, and so on.

And they actually, people own those wild horses as I understand it. And their breeding is controlled through contraception, usually gelding, but they're wild or they're semi-wild. They're considered semi-wild and they're beautiful and people really enjoy going and seeing them. One consequence of feral-ness is that you're not in optimum health,

animals in that situation that were originally domesticated and meant for people to take care of, they often are not that healthy on the range.

So, I think the number one... Well, I don't know, I'm not a wildlife biologist or a horse biologist, but I think lameness, for example, plagues wild horses and is a really crummy way to suffer. But so, it kind of combines stewardship and human care with free, roaming beautiful horses. And because they have controlled the breeding for a long time, and I think that's not something that's undesirable for the public and that people would like to see the Spanish type emphasized and so on. But this horse is highly valued. And so generally the excess horses can be sold to people who will also care for them and value them. So, I don't know. I've been thinking of that, it would be worthwhile to look at other models around the world because maybe that's just a little too domesticated for us. But the one thing we could come up with is contraception in the United States, but it would be interesting to look at other models.

Also, the horses are in areas where they actually do have a positive ecological function, and that's been another reason why those systems have survived for so long.

Ms. Carlisle: Ms. McAlpine.

Ms. McAlpine: Dr. Huntsinger, thank you very much for saying a word I get in trouble with often as a domestic horse owner with a lot of knowledge about our domestic horse population, the majority of our male horses who can impregnate more than one mare at a time, gelded. And I've been a proponent of at least verbalizing the fact that we as a country really need to look at that resource that's part of our national heritage and saying, "Okay, if we're going to allow them to procreate, then we really need to start to look at what are the best confirmation genetic and health criteria for those horses to allow them to continue to procreate." So, thank you for saying that word.

Then I wanted to jump back because it relates back to a public comment that was made earlier and also our concern about increasing collaborations all the way across the board. California uses goats for forage, I don't want to say dissemination, elimination, and my thought based on that public comment earlier, if you are leasing goats through a contract, is there a possibility to collaborate with BLM and perhaps use BLM burros? Mostly younger ones that are not quite so large and aggressive as the older ones for that same purpose.

Dr. Huntsinger: I don't know who that was directed at, and I'll leave the final answer to that to the BLM. But in terms of vegetation management, yes, we use goats, they're good in small areas where brush is a problem, but our biggest vegetation management program, which we don't acknowledge very well, is actually cattle. They graze 20 million acres, and they remove about 12 billion pounds of dry invasive annual grasses from our rangelands every year. And given our situation, I don't know what we'd do without them. We even have a national park that pays a livestock, a cattle producer to graze, do targeted grazing. And targeted grazing means you, not necessarily that it's a particular animal, but that the specifications are very clearly aimed at a target. In this case, it was a particular invasive species. So, I think goats are great, cattle and sheep have a lot to offer in that area also. Burros, I don't know. It's an interesting thought. So, I'll leave that to the BLM to answer that.

Ms. McAlpine: Thank you.

Ms. Draper: I definitely do not have an answer. I definitely do not have a specific answer for you. I can tell you what I can say about what we can authorize under our grazing regulations in terms of domestic, what qualifies as domestic livestock that we can permit or lease. I defer to the Wild Horse and Burro experts that are here with us such as Scott, because I am not a subject matter expert under the Wild Horse and Burro free roaming act. So, I do not know what authority we have to actually use, or permit, or lease burros that are wild and free roaming on our public rangelands other than the purpose of them to be wild and free roaming.

Dr. Griffin: I have nothing to add. I don't know if Scott Fluer might.

Ms. Carlisle: Scott. Just checking to see if you have anything to add before we jump on.

Mr. Fluer: No, I don't have anything to add. They are wild and free roaming under the act on public land within those herd management areas. And we do have animals in herd areas that are not designated by Congress that are animals that we are trying to zero out because they don't meet certain criteria like food forage, water availability in those areas. So hopefully Marlo, I touched on what you were thinking there.

Dr. Griffin: I am aware that Dr. Rubin has led some studies into effects of burros on habitat. I don't know if I want to put you on the spot. Any comments about burro effects relative to fire?

Dr. Rubin: Yeah, we do. We have done some work and we have a paper that's actually in review right now, so I can probably not speak about that, but I was going to comment on that idea of using burros to do brush management. And my word of caution or something to really think about carefully is first of all, these different ecosystems that are very different and would be able to accommodate different types of grazing. And then also thinking about equids and the way that they feed, the way that their tooth structure and their ability to feed, for example, on tree bark, to reach things, to strip trees, the requirements that they have to actually consume more food per day, they're going to have a different impact. So, I think it's not just an easy swap, an equid, for an ungulate. And different habitats, different rangelands could probably accommodate or not accommodate that kind of thing. So that's kind of my thoughts of caution there.

Ms. Carlisle: Commissioner French.

Mr. French: I had a quick follow up from the BLM perspective and it's something I went back to my old career in the past, but we wondered what is the BLM's protocol, or the Forest Service protocol when one congressional mandate conflicts with another? Endangered Species Act, many, many places in the area where I'm from, as Dr. Perryman talked about, we've got allotments in Northern Nevada that haven't had a cow on them in 40 years.

And we've got significant riparian damage and aquatic habitat damage on riparian areas, that has led to reduction in viable populations of Lahontan cutthroat trout, in my lifetime went from 47 viable populations in an area I was responsible for down to seven before I retired. Those populations were lost as a function of the loss of habitat, riparian habitat in particular by wild horses and burros. And we often wondered who sets that protocol? I mean, obviously when you're looking at an AML that's 4, 5, 6 times the population, 6 times AML, we're leading to a takings issue on an endangered species. How do we reconcile that? I mean, that's a question I got a lot, I still get, and I just often wondered where you guys sit with that.

Ms. Draper: We work at the local level and at the state level, we work very closely with our counterparts at US Fish and Wildlife Service. We engage in informal and formal consultation on listed, threatened, and endangered species. When we are making management decisions, whether it's at the land plan level or the local level, we are going through a process that's guided by internal agency policy for both agencies.

Normally when we're doing an environmental document or an environmental analysis to comply with the National Environmental Policy Act, oftentimes we are doing a biological assessment or a biological opinion for listed, threatened, and endangered species. And oftentimes Fish and Wildlife Service will issue a biological opinion and then we have to follow the terms and conditions outlined in that biological opinion.

The agency usually submits a biological assessment to Fish and Wildlife Service. The agency is making recommendations on what we're proposing for whether it's AML livestock numbers or other activities that the agency's authorizing. So I hope that's somewhat getting to your question in terms of protocol, but it's usually internal policy that guides both agencies on how we comply with the section seven of the Endangered Species Act.

Mr. French: Yeah, just a little bit of a follow-up, we followed that process many times, especially when you had active AUMs and active allotments, grazing allotments involved in those conversations. In those areas though, in Northern Nevada where we no longer have a viable grazing option there, there's nothing to cut from a standpoint of the livestock operators out there. Yet we're still seeing dramatic declines coming in and out of droughts, dramatic declines in habitats for a threatened species. And I'm just wondering if you're talking about the service's biological opinions, have you ever

seen one that actually the service asks for a reduction in horses down to AML, for instance, to protect a threatened species?

Ms. Draper: I would need to defer to our specialists here in the Wild Horse and Burro program.

Mr. French: Okay.

Dr. Griffin: Yeah, commissioner French. I'm aware that the Fish and Wildlife Service has identified overpopulated wild horses as being a contributor to the reduction in sage-grouse populations in some areas. Back to your larger question about how you balance competing mandates, I think that Brian had a comment.

Mr. St George: Thanks. This dialogue is great, Marlo, thanks for your remarks. Commissioner French. Sorry, board member French. I get that a little mixed up. Mr. French. I think your question is great, and it hearkens back to some other discussions the board has had at its last board meeting around land health. I don't think these mandates are in conflict, but they certainly are intentional and it's why we in the agency say on a daily basis, multiple use sustained yield is not for the faint of heart. This is a tension that happens all the way down to every BLM field office. Indeed, probably every ranger district on every project. When we have interdisciplinary teams coming to the table to weigh that tension between one program objective, one mandate, and against another program mandate. So, in this case in particular, we need to also think about land health and the goal we're trying to achieve of healthy herds on healthy lands.

And as the bureau is assessing the condition of the lands with our land health standards, one of those standards would be how are T&E species doing? How are threatened and endangered species doing on a particular landscape? And that data, that information might indicate there is a problem, there's a signal on the landscape that endangered species are suffering from a particular loss of habitat. We would go further to assess what's the modality of that loss, what's the cause, the causal factor of that loss, and begin to assess what discretion the agency has. So, if the goal is healthy herds on healthy lands and one indicator is failing habitats to meet endangered species' needs, we have a clear path for action then, at that point. We understand that we perhaps need to manage that herd to ensure we have healthy lands delivering goals and objectives that meet the multiple use mandates that we face. Right?

Mr. French: That's what I was hoping you were going to say.

Ms. Carlisle: I want to just give everybody a quick time check. I think we have 18 minutes or something. So just to let you know, and I'm going to ask a question. I'm going to start with Dr. Rubin, but then for all the panelists, I think we're doing a better job identifying a broader swath of stakeholders in this issue in general. I think the sort of stereotypical historical past was ranching communities and the wild horse advocacy communities, and they sort of hammered it out and everyone else stayed way out of it. But there's a big shift and there are a lot more stakeholders involved and coming forward with concerns and with solutions and with collaborations as well. In the work that you all do, which is a little bit removed from this, but certainly a part of it, which stakeholders do you think we are continuing to leave out? Or how are you inserting yourselves into being part of this a little bit more, and what has made it seem like you're able to do that now versus maybe 10 years ago? Because it has changed.

Dr. Rubin: Well, thanks for that question. And we appreciate being invited to be a part of this. I think as far as how we would like to be involved, more is our mandate, like I said, is to manage for all these wildlife species. And a big part of that is keeping our common species common. We don't want to wait until we're dealing with an endangered species. Some of the comments now I really appreciated, but I did want to point out that endangered species, listed species are rare by definition, and if you wait until you're having to use them as a metric that's waiting really long and they're rare by definition, so it's really hard to monitor them and it's hard to know when you're doing something to benefit them or when it's time to make a change or time to pull cattle or horses off.

But we really, our department and other wildlife agencies also are really interested in the health of the habitat. And we really need to monitor that habitat for all the species and not wait until we start seeing things crumbling. That was one of

my reasons for bringing up the Sonora desert habitat issue. You all went on a field trip yesterday, I think, to Lake Pleasant. That's where some of those pictures of those very degraded trees were taken.

By the time we start seeing those changes, and I assume BLM is monitoring that land, but we are still seeing effects and we've got burros out there and I am not familiar, and maybe we'd be interested to hear more about that, how is that vegetation being monitored? What are the protocols and what pieces are being monitored? Because what we're seeing signs of is changes that it's kind of like the foundation of your house is starting to crumble, and when that starts to fall apart, when we lose those long, long-lived perennial species, it is not an easy situation to remedy. It's not a system that's in a thriving ecological balance. It's not a situation where you can just revegetate and start over again. The desert, which is very widespread, is very slow to recover, or in many cases it is impossible to recover. So, when we start seeing impacts, that's when we need to start paying attention to those and pull those impacts off. So, I would say that engaging with state agencies to talk about wildlife habitat and quality habitat for all species is I think very important.

Mr. Kuechle: Celeste, Commissioner Pearson also has a question.

Ms. Carlisle: Commissioner Pearson.

Commissioner Pearson: Let me get unmuted here. Yeah, you guys are lucked out. I haven't spoken yet, so here you go. Of course. This is my favorite presentation and I appreciate more than you'll ever know the commonsense language and the commonsense management stuff that you guys have talked about. I know we get into the high-level science and different things like that, but I'm a plain old farm girl, cowgirl. I know a whole lot about on the ground kind of stuff. I've lived in the middle of the wild horse herds in Utah for over 40 years now, and I see those impacts like what you're talking about. And like Dr. Perryman was talking about the kind of impacts that are going to take centuries if ever to come back.

It's very easy for livestock to be managed. From the first one's off, we care about what's there. We do the targeted grazing, so we're only in a specific pasture for a couple of months, maybe at the most, and then you move and then that pastures rested; and so we know that if we overgraze and we have worn out our welcome, not only are we going to have a black eye with the BLM and our conservation officers, but we've ruined the actual resource that we need to sustain our livelihood and the wildlife and everything else.

And so, Dr. Huntsinger, I really appreciated the things that you were saying and as well as the panel, it's really hard to look at this on an unbiased perspective when you know where some of these issues are coming from. And so, I love the fact that you said that the horse problem, and we all know this, we all know it's complicated and it's layered, but our hands are tied in so many different ways on how we can, even if we suggest it, whether it goes on up the chain with BLM, whether Congress funds it, whether that funding trickles on down to where it's needed. It's really a hard complicated thing. But in the meantime, the impacts on the ground are the same.

I am hoping that we've made some good progress the last few years with funding specifically and ramping up with the adoptions wrapping up again, with the gathers, but we have got to keep the pedal down when it comes to that kind of stuff. It is going to be impossible. I've said this for probably the last 10, 12 years that I've been in the political world, that this is going to be a manmade ecological disaster if we don't get on top of this somehow. And the story's still the same. It's an impending crisis and some places are possibly never going to recover. But I appreciate all of you and what's been said today. Thank you.

Celeste, your question earlier was about which stakeholders are being left out, and you addressed it to all members of the panel. I don't know if Dr. Bradford and Dr. Huntsinger wanted to comment as well.

Dr. Bradford: I don't know if it's exactly about stakeholders, but it's more about opportunities maybe, is the comment I might make. Dr. Perryman did a great job of describing the challenges, for example, of sagebrush establishment, which is related to the challenge of restoring and rehabilitating these dryland ecosystems. On one hand, the fact that it's rare that you get the conditions that the perennial plants will establish in these systems is a big challenge. It's a problem we're all living. On the other hand, maybe it's an opportunity. If we can learn about what those specific conditions are, as Dr.

Perryman said, sort of the combination of precipitation and soils and the moisture at the right times in the right places, we can potentially anticipate those occurrences, and help land managers invest their restoration dollars and resources in the right places, in the right times.

This is something that the USGS is trying to build. We're working with the BLM right now to build a tool that helps them integrate the weather forecast, the long-term multi-month forecast from the National Weather Service, and ask the question, is it a wise investment in any given location to be seeding sagebrush this year, or should we wait till next year? Because there's no point in doing it if the odds are extremely likely that it's going to fail.

I talk about climate change, and I'm often sort of the grump, maybe this time of year I'm the Grinch, in every meeting, and so I feel compelled to at least suggest that it's looking for these kinds of innovative opportunities, these creative solutions that I think is going to help us deal with this area of dynamic change that we're going to experience in more and more in coming decades. So, I don't know, that's not about stakeholders, it's about opportunities maybe.

Ms. Carlisle: And Dr. Huntsinger, did you have an addition to that at all?

Dr. Lynn Huntsinger: That assumes a lot of knowledge that I don't have, so I don't think I can answer that. But generally, I'd like to see more people who agreed with me.

Ms. Carlisle: Amen, sister. I would be shocked if this board wasn't able to fill the next seven minutes. Oh, good, Dr. Becker.

Dr. Bechert: Happy to oblige. Can you hear me? It's really great. Thank you for this panel discussion, it was really helpful. And it's encouraging to see all of you working together. But I wanted to ask you, how are you working together? Because you've mentioned BLM, U.S. Forest Service, USGS, Arizona Fish and Wildlife, so do you work together on a project-by-project basis? Is it just a couple of people who know each other across agencies? Or is there some kind of collaborative organizational structure that you work within?

Dr. Bradford: Well, I'll start just from the USGS sort of research side. USGS has different branches, Ecosystems Mission Area is one of them, and our ostensible mission is to provide the science support for the Department of Interior agencies, like BLM, Fish and Wildlife Service, Park Service. And we as a result of that do have some formal structures for maintaining relationships and maintaining communication about what the science and information needs from the agencies, and then where can the USGS to help fill those holes? There are folks dedicated to bridging that gap, being liaisons between the agencies that help, for example, coordinate and maximize the efficiency of work in sagebrush and sage-grouse related issues is just one example.

That all being said, there's also a huge component, I think, of personal relationships. A lot of it is someone that you know and you've worked with, and we talk a lot about decision support tools, but I think in some senses what we're trying to cultivate, and having some success, is sort of decision support relationships, long-term engagement between the resource managers and the researchers to try to help actually implement that adaptive management, that elusive adaptive management kind of paradigm that's difficult to actually make happen, but I think is increasingly necessary as we move into these rapid changes. So that's one perspective from one small part of the USGS.

Dr. Rubin: Yeah, so the Arizona Game and Fish Department, we do have agreements, such as MOUs with BLM, and with the Forest Service, an in very general terms agreement on wanting to work towards shared goals, and we try to focus on those. But as was mentioned, also sometimes it's a lot of the interpersonal relationships, folks who are working in particular parts of the state, working together on projects and communicating. We've had staff help the BLM on surveys when they've needed folks, or we've invited them to join us on surveys specifically for borroughs, horses when we've incorporated those into some of our research. So, a lot of that is maintaining those relationships as well.

Ms. Draper: I would like to provide an example of one of our most successful partnerships that we have in BLM. And before I go there, I want to highlight that our sister agencies and DOI have different authorities than one particular agency

may have. So, we have tools available to us that enable us to work with our sister agencies, whether they're interagency agreements or MOUs.

Interagency agreements are awesome, because this is how we can use each other's money to take advantage of opportunities. We have two joint ventures in the Bureau of Land Management, where in the Intermountain West Joint venture, this partnership, is actually enabled through an authority that the Fish and Wildlife Service has that the BLM does not. But because of being able to use an IAA to partner with Fish and Wildlife Service and their authority, we have this organization under this joint venture, and it enables us to bring a variety of other agencies to the table to further our ability to leverage resources, such as their ability to hire positions, and these positions grow our capacity to do work out on the ground.

Also, these partnerships, we are able to tap into opportunities for research, we're able to fund things that we couldn't otherwise fund on our own, and then we're able to take that new science and transfer that and use it within the agencies to inform the policies that we develop, that inform the decisions that we make.

Also, the partnerships can reach down to state and local level, that we may not otherwise be able to do, and leverage those resources. Our ability to partner with agencies at the federal level and the state and local level enable us to ensure that we aren't excluding any stakeholder that should be at the table, to your point that was brought up earlier.

Mr. Davis: And I'd say for the Forest Service, very similar to what we've heard, there are formal and informal. There are formal MOUs, or good neighbor authority, that we have with states, tribes, sometimes counties. We keep abreast of the latest science, working with Forest Service Research and Development, USGS, Universities, Society for Range Management. We keep up with stakeholders, with national level groups, like Public Lands Council and Association of Fish and Wildlife agencies.

At the local level, that's probably where you're seeing more field expertise shared. At the national office, I'm not talking to each state's representative on something, but I certainly can set up a mechanism that our field folks know that they can do that and are encouraged to do so.

Mr. Kuechle announced a 15-minute break

BLM and U.S. Forest Service Program Updates

Holle' Waddell, Division Chief of the Wild Horse and Burro Program, BLM

Ms. Carlisle: Welcome back everybody, I think we are moving right into a few presentations from BLM and Forest Service program updates.

Ms. Waddell: Okay, perfect. Thank you. Okay, well good afternoon, everyone. Thank you again, advisory board members, the public, the room, and those joining virtually, as well as the Bureau of Land Management staff that we have here in the room, the Forest Service staff for being here, and for everyone being engaged in this very important issue. I do have with me the deputy division chiefs for both on and off range, Paul McGuire and Scott Fluer, they're going to be here to answer any specific questions, and just kind of add on where I may leave things off. Again, my name is Holle' Waddell, and I am the Division Chief for the Bureau of Land Management's Wild Horse and Burro program.

So, what you see on the slide now is just a brief outline of what I plan to cover today in this presentation, and we'll start off with a few background slides about our legal authorities and program objectives. I'll remind you of our latest population estimates, and then cover a few updates from our on and off range branches, talk about our new partners. We had several notice of funding opportunities that went out last year, and so we made some awards. And then update you on any new policies, go over our comprehensive animal welfare program, and then end with a few slides about the program's budget. So, the BLM is guided by numerous laws that are passed by Congress and signed into law. However, for our

purposes today, the two most important pieces of legislation that we will be talking about and referring to, and you heard it from Eric as well as Marlo, and that was the Wild Free-Roaming Horses and Burros Act, and the Federal Land Policy and Management Act, and both of which were signed into law in the 70s, and they provide the BLM with the legal authority to manage wild horses and burros on public lands. I'm ready, Tracy. All right, so talking a little bit more about it, the Wild Free-Roaming Horses and Burros Act is the primary law that tasks the BLM with the management and protection of wild horses and burros. And there is a lot in the act, and so I hope that you've all had a chance to familiarize yourselves with it. The board, you do have it in your notebook, those may be joining virtually. It is a part of the notebook, so if you want to grab it handy, feel free to.

Also, the Federal Land Policy and Management Act is the second major piece of legislation that I mentioned, and it covers all horses and burros and directs our management. So, there are other laws that have made minor changes, as well as the PRIA, which is the Public Rangelands Improvement Act, and the various omnibus budget bills that are passed by Congress.

So, together these laws have provided the BLM with our overall mission, which is to manage wild horses and burros as integral parts of the natural system of public lands, and balance with other uses of those lands in accordance with BLM's multiple use and mission. You heard Eric and Marlo both talk about that.

So, with that said, our goal is quite simple. Yes, I said simple. According to this program, we want to manage and protect healthy wild horse and burro herds on healthy public lands. Now, that phrase is extremely simple. How we get there is what is a little more challenging. So, our most recent estimate shows more than 82,000 wild horses and burros that were roaming on public lands. That's of March 2023. And this includes herd management areas and herd areas. And so that means that the population did tick up about 500 animals compared to last year's population estimate, but we're still more than three times the sustainable population level, or what we like to call appropriate management level. I know you've heard many of these terms today, or at least the acronyms, and I know the acronym sometimes can be a lot. So, this year, we had nearly stagnant growth that follows two years of population decline from a peak of more than 95,000 animals in 2020. So, it is important to note that our population estimates don't line up perfectly with the fiscal year, which is how we track removal numbers. So even though we removed more than 20,000 animals in fiscal year 2022, only 11,400 of those removals came after March 2022, which is the date from which we calculate annual population estimates.

So, I also want to take a second look about our effort to keep populations below 100,000. Let's talk about that. As you all know, I mentioned this in June, that with a larger population comes more foals that are born each year. So, if the population reaches 100,000 animals, then we would be producing an estimate of 20,000 foals in one year, and the BLM's current removal capacity is around 20,000 animals per year with our current resources. So that means that we would not be able to affect population size after that population threshold is passed.

So, following a record year for removals and treatments, we removed fewer animals in fiscal year 2023, and that was due to complications and timing of our budget. When continuing resolutions and a budget is delayed, it does delay our operations. So, of the total number of animals gathered, we almost gathered 6,000 animals, and removed 5,300 of them.

So, we did have fertility control treatments that we conducted during the gather. We talked a little bit about that earlier. We conducted them together, either with our partners, or administered through darting, or during gather operations. And I want to note that this was the first year that we started using a new contract mechanism that focused on catching, treating, holding for about 30 days, and then releasing mares back to their herds. So, I'm hopeful as we move forward, we can rely on more catch, treat, hold, release gathers to help us maintain populations through slowing growth and reduce the need for removals.

I think we heard earlier that contraception was key in order to address the growth of a population, but it is important to also note that what is key to effectively address overpopulation is to immediately remove animals. That is the operation that immediately addresses overpopulation, that is conducting gathers and removing animals. Once that happens, contraception can be a part of those gathers, but contraception slows population growth, it does not address population.

So, we also began two new research projects in fiscal year 2023, which we shared with the board at our last meeting in June. And so, one was looking at how we can improve PZP effectiveness, and the other was looking into developing a one-dose vaccine. You can find more information about each of these studies in your notebooks. I did walk through the notebooks with the board this morning, so it is in the notebooks, a further breakdown of some of the research. We also completed surveys in 56 herd management areas and 10 herd areas and including using the infrared to survey 10 herd management areas. Now, that's great. We use those in the Idaho, Nevada, and Wyoming states. I believe that's correct. Scott will definitely correct me if that is not right.

So, I'm also very extremely pleased to also present to you some major accomplishments in our off-range branch as well. Note, this photo was taken by our very own Deputy Division Chief, Paul McGuire. Round of applause. Paul and Jason do a great job at capturing many parts of our program. You'll see their work throughout this particular presentation as well as online.

But we had another very strong year for adoptions in sales, having placed a combined total of 8045 animals into private care or with another government agency. And that's important, because that private care placement does not only account for adoptions in sales, but also transfers, and that's what that another government agency reference is talking about. So, that's the second highest number of animals placed into new homes in more than 25 years. Yes, more than 25 years.

So, following fiscal year 2021, when we placed more than 8600 animals into new homes. Now, about half of those adoptions were through our adoption incentive program, and we're very thankful for our partners who help train and find homes for other animals. So, we continue to provide care for animals in off-range corrals and pastures for those animals that were not adopted, sold, or transferred. And as you can see, the vast majority of our animals are in off-range holding systems at our pastures. Now, pastures are more cost-effective, and provide a better quality of life long-term for these animals.

So, before we move on, I do want to highlight a few more updates from our off-range branch, and we continue to be amazed with how successful the Online Corral is at placing animals into private care. And I think I've mentioned to you before, we'd really like for Online Corral to become the Amazon of adopting and purchasing animals.

As you can see, over 1400 animals have found homes through the Online Corral in fiscal year 2023. We're also nearing the finish line with being able to release new solicitations for off-range corrals and pasture space this year. And finally, I'm really happy to announce that we filled three critical positions in the off-range branch, so we can continue our progress with private care placement.

So, we remain focused, and that's supported by our agency leadership, in building effective and engaging partnerships to help us accomplish our mission. And we're excited to work with 10 new renewed partners. So then, they're a mix between being new partners and renewed partners this year, on a range of projects, and this is as a result of our notice of funding opportunities. And they're from fertility control darting and management, to research, private care placement, and that includes adoptions... I'm sorry, I totally lost my place. That includes adoption, sales, and then public education. So, you can see an example of the work, and one of our partners in the picture that's on the right. Mustang Champions has built a beautiful exhibit that they've taken to equine events all across the country. And this is to raise awareness and promote adoption. So, it's more of an outreach education tool. As you can see, this exhibit includes a virtual reality experience that takes participants to western public rangelands to see horses, wild horses, in their element.

In an effort to continue expanding our partnerships, we've released three new funding opportunities over the last few months aimed at soliciting more on-range, off-range, and research projects. Also, more information is in your notebooks.

The Wild Horse and Burro program has issued two new policies or instruction memoranda in fiscal year 2023. Together, these policies strengthen and affirm the BLM's commitment to providing high quality care for excess wild horses and burros off-range.

The first is an update to our animal health vaccination, gilding, and microchipping policy. And as you know, this policy requires that every wild horse and burro is microchipped in addition to receiving a freeze mark when prepared after being gathered and removed from the range.

The second IM establishes standards for humane treatment, handling, and care of wild horses and burros in off-range pastures, and public off-range pastures as well. So, this IM continues building the Comprehensive Animal Welfare Program, and I'm proud that these are now published and formally established as policy.

So, speaking of the Comprehensive Animal Welfare Program, this slide provides a visual of what our overall goal for assessments are, and what the overall averages are for gathering off-range corral and adoption assessments. So, our first goal is to have assessment ratings of 70% or higher, and as you can see, we are accomplishing that. Our second goal is to have the majority of our assessment rate at 86% or higher. Again, we're accomplishing that. When we look at the averages of all the gathers, we are achieving 95%, and for off-range corral an 88%, and for adoption events 91%.

So, within the year, or since the beginning of the Comprehensive Animal Welfare Program, we've completed over 43 assessments in total, 22 of them were focused in off-range corrals, 14 of them were focused on gathers, and seven on private care placement events. So, we continue to refine processes as we continue to develop more parts of the Comprehensive Animal Welfare Program.

So, this shows the individual assessments were completed to date and their ratings. And as you can see, the vast majority are rating above 80%. I know it's a lot of blue on the screen. But this shows the total of 43 assessments in the breakdown that I mentioned. So that said, we'd love to see perfect scores on all of our assessments, and that is what we are working towards. You can see right there.

So, this slide shows how the BLM spent the available funding within the Wild Horse and Burrow program in fiscal year 2023. So, this is really an update just from June to September 30th. So, as you can see, as of October 1st, we spent a total of about \$158 million. The vast majority of our expenditures continue to be for caring for unadopted and unsold animals in our off range holding facilities. Expenditures in this category will continue to remain high in the coming years, as we provide lifetime care for unadopted animals.

And what we've been focused on for several years now is moving more animals from higher cost corrals to lower cost pastures when it's being determined that they don't have an adoption demand or sell demand. And so, this helps keep holding costs low, and provides better outcomes for the animals as well.

So just a reminder, our fiscal year 2023 budget was \$154 million, and so we spent about \$158 million. I just want to note that some of that has been benefitting sub-activities and par year funds as well. So, so far in fiscal year 2024, reminder, we are under a continuing resolution, which carries over the budget levels from fiscal year '23. Sorry, note, wrong number. In '23, our budget was 147.8. Our president's budget is 154.

So, as you can see, we're seeing a familiar picture, with off-range holding by far the largest of our cost, even still. The president's budget for fiscal year '24 has called for that increase to 154 million, which would help continue our efforts to reduce overpopulation on the range. So, on that note, I want to thank the board for your attention to this presentation, and for the entire day as well as yesterday, and I'm happy to take some questions.

Discussion

Dr. Perryman: Quick question, Holle', what's your feed budget for fiscal year 2024 for off-range? Off the top of your head, just give me close.

Ms. Waddell: The feed budget?

Dr. Perryman: Feed budget, yeah.

Ms. Waddell: I don't know if I... Tell me that again. What do you mean?

Dr. Perryman: How much are you going to spend on hay?

Ms. Waddell: So, the issue there is that, so our contracts are a little bit different. We don't necessarily, not in every contract does BLM purchase the hay.

Dr. Perryman: Right.

Ms. Waddell: There are some contracts that the hay is included in those contracts along with everything else. And then there are some contracts where BLM does purchase hay. So, what I'd ask Tracy, will you pull up the slide for 2024? So, you'll see the gray pie. That is the one that identifies all of the off range holding.

Dr. Perryman: Right.

Ms. Waddell: So that's how much we're going to spend. But that is, I could totally get the breakdown. I'd have to look at a larger spreadsheet to get the breakdown. But that's going to include all costs. That's going to be labor as well as operations. Operations are going to include any actual contracts, vet care fee, transportation, all of that is going to be in that same pie.

Dr. Perryman: Right. I was just wondering, just some kind of a close number of about how much of that is actually feed cost altogether, separating out the holding cost and everything. I realize some of it's easier to calculate than others, but-

Ms. Waddell: It does depend.

Dr. Perryman: Do you have a best guess? Does anybody have a best guess on it?

Ms. Waddell: I mean, again, the corral costs, and Paul, you may be able to explain this a little bit better, but the corral cost itself... Each one of the contracts, we have the list, if you look in your folder.

Dr. Perryman: Right.

Ms. Waddell: So, we have the list of the corrals and pastures that are broke down by each individual one. Each of them is its own contract, and some of those contracts are different. At our correctional facilities, some of them grow the hay, so it's included in that contract, there's no feed bill. And then there's some contracts that there's a feeding contract, which includes the contractor purchasing the hay. And then there are other contracts where BLM purchases the hay. Paul, do you have a better response? Okay.

Dr. Perryman: Just some kind of ballpark numbers. Just curious.

Mr. St George: Hi, it's Brian St George again, for those that may not be able to see me. So, Paul and I were just collaborating, because I think we did some rough estimates for some of our BLM senior leaders recently. This isn't a good figure for you, Dr. Perryman, but it comes close. We calculated something like 14 million feed days. Meaning, we're providing that food and care for animals on an estimate of 14 million feed days, roughly \$22 million perhaps. No.

Dr. Griffin: That's feed days.

Mr. St George: Oh, 22 million feed days.

Dr. Griffin: So that's corrals and pastures. Yeah, so just to elaborate on what Brian is saying, so this is very rough, but if you figure we've got 60,000 horses in holding corrals and pastures, 365 days, that's about 22 million feed days. So, to get to the number, you're asking about how many dollars have we spent on hay under contract, we'd have to drill down pretty deep to get that, because we have different contracts for how hay is required. And of course, many of these animals are on pastures, so they're not consuming hay most of the year. So, we could certainly get that number if you're interested in it, but it'd be kind of an audit to get there.

Dr. Perryman: Get, I can take 14 million feed days and I can go from there, or 22 million feed days. I can take that and go and get to it. Okay, good. Thank you.

Dr. Griffin: Thank you, Brian.

Ms. Waddell: Sorry, Dr. Perryman, the thing is that it is extremely complex when you're talking about the budget. We try to simplify it, and there's a very nice pie chart.

Dr. Perryman: It's really quick. It's very quick from there. I mean, if it's 22 million feed days and it's a buck a day, you can do the math pretty quick. I don't think it's quite that much, but it may be. But nevertheless, that's great. That's exactly what I was curious about.

Ms. Waddell: Yes. And Dr. Perryman, I'll tell you, so the feed days do include the animals sitting in the pen, right? But our cost, they assume all of the things dealing with that animal. So, it's not just the hay that it's going to be eating, it's going to be the person that put the hay there, it's going to be the person that scooped the poop out of that pen, all of those costs are associated in that feed day cost. Yes. Any other questions?

Commissioner Pearson: I've got a hand up. I'll ask a question if nobody else does.

Dr. Rubin: Go for it.

Commissioner Pearson: So just out of curiosity, what are the price comparisons between a rail holding space per day and the long-range pasture? And I know the prices vary, but what's your range right there?

Ms. Waddell: That's a great question. Our average corral cost and our average pasture cost.

Dr. Griffin: Yeah. So, without giving a lot of details in terms of dollars, I think your question was how do they compare? So, the cost of keeping an animal in a corral is about three times, maybe a little more than three times what it costs to keep that animal on a pasture. And so, that clearly is why we prefer pastures as a long-term option for holding those animals. If that gets to what you were asking, Ms. Pearson.

Commissioner Pearson: Yes. I know a few years back, when we were trying to expand greatly the long-term holding facilities, the bids, at least in Utah, the bid for a corral per day was about \$5. And we really don't have very many long-term pastures in Utah. You need to have a little higher annual precept than what we do. But I was just curious what those pastures would be.

Dr. Griffin: can tell you again without getting too specific on the dollar numbers, because obviously with solicitations coming out, we want those to be competitive, but you mentioned \$5 a day for pastures several years ago, or in corrals. It's more than that now. Considerably more.

Dr. Lenz: So, what is it a day, today? Corral versus pasture, per horse, roughly?

Dr. Griffin: Okay. I'll go ahead and give you the averages because they're not a state secret, but I'll put it out there. We generally, when we're calculating costs and projecting, we're looking at somewhere in the neighborhood of \$7 a day for corral. Could be more, could less, and typically maybe around \$250 a day for pasture care. Again, could be more, could be less depending on where that pasture is.

Mr. Kuechle: Branham has his hand up as well.

Ms. Carlisle: I'm sorry, I didn't hear that. Oh-

Ms. Waddell: It's Sharif.

Ms. Carlisle: Oh, okay.

Mr. Branham: Yes, so I just wanted to ask back a clarifying question about how much it costs to feed the horses, how much are we spending? I think in a year is what you were looking for. If you could give us some more information about what you were trying to figure out. What were you hoping to get from us and then what were you wanting to do with the information? And I ask that only because that would help us whether later conversations later today or tomorrow, but also going forward.

I also wanted to highlight and underline the fact that the information that we're giving you is based on best understanding of what your question is, and we don't want to go too far with it. Given that it's not a direct answer to your question. It's not a direct, you know, these are the costs. So, I just want to be cautious, depending on what you're going to do with the information, to not go too far with it. But if you can clarify for us, what did you want to figure out based on your question to us about the feed amounts and cost associated with that? That would be helpful.

Dr. Perryman: I got this number, 22 million feed days. I'm good. That's what I needed. I can take it from there. So, I'm good.

Ms. Waddell: Thank you Sharif. Because I guess Dr. Perryman, and I'm happy to send you a further breakdown. I don't think any of you were a member of the board when our budget people would take a further breakdown besides this pie chart. When you're talking about average cost, which is what Paul was getting to, our average pasture cost is about \$3 and 54 cents. That's also on our website. We give, at the end of the year, information and that's something that we share on our website. Our average corral cost is about \$7 per head, per day, which is what Paul was getting to.

When you're talking about feed days, again, labor and operations are in each one of those. So no, if you divide 22 million feed days against the total number of monies that we spent on corrals and pastures in a year, you're not going to get how much hay we purchased. So, to be clear, and that was your exact question-

Dr. Perryman: No, I can take 22 million feed days and figure out. I mean I do this, so that'll get me an idea of how much hay is being fed and et cetera. So, I can do that.

I do have another question though, and that is on the pastures. If you hit a drought sequence or something in the pasture and you just don't get the forage growth that year, how do you design a contract that allows the animals to be fed properly if they have to have auxiliary feeding, because of some kind of drought situation or production situation maybe come up?

Dr. Griffin: You're probably aware that the standard term of most of all of our pasture contracts is the contractor is required to be prepared to feed four months out of the year. That's for the dormant period. But you have a situation like you're describing, you've got a drought situation, if there's an actual drought declaration, and that would be a state declaration. If the governor declares an emergency situation where we have one of our pastures, then there are clauses in the contracts that allow those contractors to appeal to BLM to purchase supplemental hay. So, if we need to feed for two or three more months that year, the contractor can appeal for that and that can be provided.

Ms. Waddell: And I think we gave an example at the June board meeting and also last year at the board meeting about that. I think that question was asked how many times we provided additional supplemental hay and we did talk about the counties that declared drought declarations and that we did provide additional supplemental funding to support those contractors.

Dr. Perryman: And that's typically based on the drought monitor and declarations of

Dr. Griffin: The trigger for the contract would be a drought declaration by the governor.

Dr. Perryman: By the governor of that particular. Okay, cool. Thank you.

Dr. Lenz: When I hear that price, I think that's really good. I'd like to feed a horse for \$7.50 a day, right? I think sometimes it sounds like we're pounding on you all, but I'll have to compliment you that that's really good.

Dr. Griffin: And just to highlight something that Holle pointed out, that cost figure that's for corrals is inclusive of everything. So, feed labor, which is a big chunk of that, contractors labor. Other operational costs.

Dr. Lenz: Well, that's everything, which again, it's extremely inexpensive, right?

Dr. Griffin: Well, we're dealing in volume, so-

Dr. Lenz: Take care of my horses.

Ms. Waddell: Yeah, I mean it's 16,000 animals, 365 days. I don't know.

Ms. Carlisle: Dr. Iacona gets to go next.

Dr. Iacona: Great, thank you. While we're asking about various costs of things, I'm interested in the relative cost. So yesterday when we were out in the field, we were talking a little bit about the costs of actually doing the roundups. I know you're not doing very much of this at the moment, but for future planning, what is the cost of the contraception actions? Like, if you didn't round them up, but you did a roundup to provide contraception or I guess the other way is darting, right? But what is the relative cost of that particular activity versus rounding them up to bring them into holding?

Ms. Waddell: So, gathering to remove versus gathering to treat.

Dr. Iacona: Yes.

Ms. Waddell: Yes? Okay. So there still is the cost to gather; that cost doesn't change. It still costs the same to hire a helicopter to gather the animals, and there's not necessarily a cough saving. I'll bat it to you, Scott, in just a second. What I was going to say was the gathering to remove is one element. Gather to treat, we would be bringing in a certain number of animals to try and only gather a mare to treat. So, we may be bringing in two animals to then treat one. Versus gathering to remove, we're just gathering and removing all the animals that come in.

Mr. Fluer: Yeah, no, great question. The cost of gather and remove is actually cheaper than the cost to gather and contracept. And the reason that is, is in some cases we're holding those animals to booster those animals. So, we may be holding them for 30 to 60 days onsite, in a temporary holding facility to booster them with a vaccine. And so, you've got to pay that daily rate for feeding during that 30 to 60 days. So that cost goes up substantially.

Dr. Iacona: I see. So, it's essentially the same as gathering, but then you put them back out.

Mr. Fluer: I mean the gather cost is still the gather cost, yeah.

Dr. Iacona: The gather cost is still the gather cost. You still have to hold them for a little while and then you put them back out, so it's not-

Mr. Fluer: Right, if you're booster-ing.

Dr. Iacona: Yeah. So, a related question, are there any efficiencies of scale? So, if you go to a HMA that's way overpopulated, is the gather costs per animal lower than one where they're much more dispersed?

Mr. Fluer: Well, it just depends. When we go out with a statement of work and go out for bid, it really depends on the herd management area, the topography out there, the access, all the costs associated for that gather operation that the contractor bids on. And so, it just depends.

Granted, larger numbers of animals are typically cheaper. And so, what we've done under the catch, treat, hold and release contract, the new contract that Holle described, is we've bundled some of these smaller herd management areas. So, we have maintenance activities going on, like small numbers in an HMA. So, we might bundle two or three HMAs together under one contract to try and build numbers to save dollars, if you will.

Dr. Iacona: So, what are-

Ms. Waddell: I'm sorry, Dr. Iacona, before you go on, I just want to say that when you're talking about gathering and removing, even though gathering and removing large animals of animals may be less expensive on the gather contract, but once we remove those animals and bring them into holding, we've committed to funding. It is not cheaper, just to be clear.

Dr. Iacona: Right, yeah. No, I was just wondering about the gather costs itself. Whether there was-

Ms. Waddell: We can't talk about the gather cost without talking about the holding cost.

Dr. Iacona: Yeah, I got it. I think I had one more follow up, but I've lost it now. Oh well. Oh wait, I remember it. It was based on what you were just saying about what does influence the contract costs. And so, is it things like how rough the topography is that you're going out and searching for the horses in, that sort of influence the cost most? Or area you're going over?

Mr. Fluer: Well, it depends. Some of our herd management areas are very large landscapes, millions of acres. Versus, like we were in yesterday, I think John said was 80,000 acres, but there he's going to have to bait trap. Could you imagine doing a helicopter drive trap in that menagerie of people? And so that's going to take some time, and so you've got daily costs waiting for those animals to come in and capture. So, it really just depends on each of the gathers.

Dr. Iacona: Great. Thank you.

Ms. Carlisle: Dr. Bechert.

Dr. Bechert: Thanks. My question has to do with the budget, too. I know the goal is to get to AML and then maintain AML, which makes sense, but I remember in the past too that you have these plans to gather. Every state has its strategic plan, but then life happens, right? There's an emergency drought or something else happens and then the money is taken from that state to deal with the emergency, understandably.

And one of the board recommendations had been to establish some kind of emergency fund so that each state could carry on with its strategic plan. And I don't know if it's buried in one of those line items up there, or if any progress has been made in that respect.

Ms. Waddell: That's a great question. So, Dr. Bechert, we did. We've identified, and every year we do a certain number of emergency or nuisance animals, not knowing exactly what state they may be in, but in our budget, we set aside in our minds and on our table, our spend plan does identify funding for a certain number of animals to address emergencies or nuisance.

Mr. Fluer: Yeah, no, great question. If you look at the '24 gather schedule, which is posted on blm.gov, you'll see a placeholder for 1500 emergency and nuisance gathers. There's nothing assigned, right? Well, actually Arizona just submitted the request that we looked at yesterday. So, 400 are going to come off of that 1500. That's additional money that they've got to find and come up with. It's additional holding money, gather money. It's kind of like all of a sudden here it comes out of the blue and now we've got to deal with it. So, makes it a challenge.

And we have to analyze holding space availability. Where are these animals going to go? Do we have room? It's a real balancing act before we even authorize such an action.

Ms. Carlisle: I was trying to get my calculator because my mind is whirling right now. I did want to point out that I think sometimes we have these desires to try to figure out, "Oh, well we want this and such to happen more for the agencies. We want them to be able to do more holding or more fertility or more this or more that. So, they just need X more money." But that is never how it actually translates on the ground. It is too interleaved with one another. You can't pick things out that carefully. I'm just appreciating that more and more every time we have these conversations.

Ms. Waddell:

You know, Celeste, we had talked in June and maybe it was one-on-one, and I think I mentioned to you that money is not the primary solution. It's that there are a lot of other pieces. You can send \$200 million to this program, but if we haven't had the time to acquire additional space, corrals and pastures... And not just anywhere, but in the right places. It doesn't help us to acquire 10 new corral spaces in Kentucky when, where we need to be addressing overpopulation is out west.

So, it's important. It's a logistical challenge, for sure, when you're talking about this program.

Ms. Carlisle: You blew everyone's mind so much that we have no further questions.

Ms. Waddell: Or I was so thorough.

Ms. Celeste Carlisle: That's right.

Ms. Waddell: Thank you deputies. Appreciate it.

Ms. Carlisle: Did you have one, or do you want to hold off? I think we're ready.

Mr. Kuechle: Okay, so we're going to shift to the update from the Forest Service from Dr. Theresa Drotar.

Dr. Teresa Drotar, USFS Forest Service Program Update

Dr. Drotar: There you go. Good job. All right, we got it going. So yes, as you said, I'm Theresa Drotar and I am the National Wild Horse and Burro program lead for the Forest Service. And we do have a contingent of people here and we'll get into that as we go along. Next slide please. Oh, closer? Okay, next slide please.

Right now, within the Forest Service, I'm going to give you a range instead of exact numbers of how many horses are out there and the reasons are because some areas actually pay attention and have their census up-to-date, and some are unable to do so. So, we have somewhere between nine and 12,000 horses out there on the range and we have somewhere between 1,000 and 1,400 burros. We should have around 2,000 horses and around 300 burros. So, we are way over AML in all areas out there on Forest Service lands.

The latest developments going into, I'm not giving you anything going over the basic stuff that we talked about in June, but obviously we continue to be underfunded. We keep saying we need money, and we do. Our budgeting system and the way that we're appropriated is entirely different than BLM. Again, we do have uneven management from one forest to another, from one wild horse or burro territory to another depending on where they are and what's going on with that forest supervisor or that regional forester.

The good thing is placement rates out of Forest Service facilities is close to 100%. Even the older horses, they're moved into private care. When I say "placement", not going into other things out of Forest Service corrals. And that doesn't mean that all of the Forest Service horses go to private placement because we do have a lot of animals also in conjunction with BLM.

We are talking with BLM currently. We had a successful transfer of horses that were designated as Forest Service horses from the joint management areas that were gathered last spring. And we were able to move 35 horses back over to our Forest Service facilities and get them into private placement, taking the pressure off of BLM to do that for us, and it was very successful. So, we're in talks to try and do that again because we do have space again. And hopefully in the future we'll have more.

One of the things that we did that were recommendations from you guys in June, we did hold an internal Forest Service Wild Horse and Burro training for our personnel across the agency in the various regions. It was held in Durango and then we did a field trip down to our corrals in Bloomfield. I think it was quite successful. Obviously, it was our first go at our standalone training. They've done trainings way back in the past in conjunction with BLM, and we'll continue to do that and try to get consistency.

And also, even within the agency, certainly in the public, there's a lot of people that don't even realize that Forest Service has a Wild Horse and Burro Program because of a lot of different things in the past. And we only have 20% versus 80%. So, we are definitely, you know, we have a lower number and a lower percentage, but we've been working really hard. And so that internal training was our first go to get started and that was something you guys suggested, a very good suggestion. So, we did institute that successfully and we'll continue to do that.

The other thing that we're looking at, and we spent some time, I had a detailer that helped me with this, but we were looking at the Comprehensive Animal Welfare program that, you know, Forest Service was there when BLM developed it and we follow the same principles, but there's some language in there that doesn't suit Forest Service as well just because of the differences in the agencies. And so, we're trying to modify that and make that so that it fits Forest Service better, so that we can post that on our website. So that's in process. We kind of know what we want to do, but I got to get that written.

What I'm going to do is we have some low lights, but we have some highlights. I'm primarily going to go over the highlights with what we're doing and we're going to start with the Modoc National Forest near Alturas, and the Devil's Garden Plateau Wild Horse and Burro Territory. And we're lucky enough to have really good people out there. I mean really, really good people. As Celeste said, if you haven't been out there, it's not the easiest place to get to because if you have to fly, it's like a three-hour drive to a major airport, but it's worth it. And one of these days if the board's up to an adventure, maybe we can go out there. But we do have some of those people, I'm going to introduce them as we go.

The forest supervisor is Chris Christofferson, who is a very, very good person to work with. He's really mellow, but very sensible and talks well with the management up above his head. But here present at Region Five's range manager and Wild Horse and Burro coordinator basically is Lee Seedy, in the back. So, Lee deals with more than just Modoc. She deals

with all of the territories plus the range issues up and down Region Five, which is California. So, it's big because California is huge compared to many other states.

But then also present we have Charlie Johnston, she is the corral manager, and I can't imagine where we found her, but partly because she's from that area. But Charlie is, I mean both of these women put in so much effort and are so enthusiastic. I don't know how we got so lucky. The other one right there is Madeline Levy, and Madeline is the on-range manager. First, she started in lower positions, and she even did a little bit with BLM, but she's been with us now in that position and doing a bang-up job. And these two are just marvelous, and so that's part of the success there that we have at those corrals. Next slide.

So, we do have some census data from the Devil's Garden, not way far back. Oh, and one of the things I wanted to mention too, it's never really talked about, but essentially at Devil's Garden is 97% Forest Service, 3% BLM. But we manage it all as Forest Service because 3% is immaterial, but BLM does have 3% of the land mass. And there was a number of the acres, it was 232,000 plus acres. So, it is a pretty good-sized area; so that area there are allotments, grazing allotments, intermixed in there. So, it's a bit different. It's pretty rough country though. It's beautiful. We got to go into some of these places and you don't just drive in there with a minivan, but it is quite large and it's beautiful.

But in 2016 there were 2,246 was the estimate for the horses on the range. And as you can see, those numbers have come down steadily, though there was a little bit of a bump up in 2023. One of the things that the harsh winter last year did have some effect, though, in cutting down some of those things. But there have been removals and management of those horses bringing that down so that hopefully we'll get down to AML by... What is your goal now? It was 2025, has it changed? 2025, they are planning to be at AML. Next slide please. So totally removed since 2016 would be from that forest are 3361. So, on that one forest, there's quite a few removals in that period of time. In 2023, there were 240 horses removed. In 2022 there were 389, and the year before that there were more than that. I'd like 492, or something of that nature. One of the problems that we're seeing or one of the issues that we're seeing with these particular animals, horses are smart, burros are smart too. They're becoming habituated and some of them are ignoring the helicopter.

Helicopters are given a bad rap, but if they're used properly, they're actually a very humane way to move animals. Can be very low stress and some of the animals, they're learning that "That's not going to hurt us." So, they're going to a little bit more, going to try some different things, including just trapping, which costs just as much per horse as a helicopter and it's lower numbers at a time, but there are other ways to get around it when animals are getting habituated to it.

So, the good thing about this group, they placed 300 now, because it's more since we've been here. 300 horses in private homes since December 4th, 2023. So that's a lot from when they took in 240 horses this year. So, everything that came in last fall is gone. They are no longer in the corrals. Our corrals are not set up to hold horses for a year and a half, two years. They move in and out pretty quick. Most of the time the holding is, average is maybe three months that horses are in the corrals. So, they're moved out quite quickly, which is great.

And so yeah, that's 99 to 100% placement rates. I mean, that's exactly what we want. Now there are reasons that that is true and that we do have some cooperators that are taking some of the older horses that are just pasture ornaments and you're never going to get close to, which isn't always true with the numbers BLM is dealing with. But the 99% rate is very good.

And they did foal out a hundred mares this year. Some of those mares stayed in a little longer because they were too far along in their pregnancy to ship them when people wanted to adopt them. They'll foal the mares out and then ship pairs when it's safe to do so.

They have pickup sites they have cooperators back east. I know there's a person in Maine that helps coordinate with different adopters and we have pickup sites in a lot of different places. So, they go back east to Florida and all kinds of places. All these horses can't stay in the west. There are too many of them, but there's a real need for horses all over the country.

Another thing that they are doing out there on the Modoc are coordinating with research projects. The money that Congress has allocated for research projects that Dr. Griffin coordinates wonderfully, goes to BLM, but we have a smaller operation. If they have their funds for whatever the project is, we can manage to help coordinate some of that research. We've coordinated with USDA Wildlife Services. It's another agency within USDA. We just love this. And one of the things that we're doing in that picture that's in the background, is the picture of a stallion project. As you can see, this is a double-blind study. Well, can you tell the difference one of those horses from another? If you look at the stallions, they're all these fairly similar Dark Bay horses. And he's working on reproductive technology strategies using both injectable and mucosal administration and assessing the population control as well as controlling some congenital disorders that we have on some of the territories. And not just this one, but things like cryptorchid. And there's a territory that just brought in a bunch of horses from in New Mexico where a large number of the stallions only had one descended testicle. As a veterinarian, the idea of going into an abdomen to find a retained testicle is a horror show. I would rather see them in a clinic.

If you have a horse that you can't handle, what he's finding is that with the, and it's GonaCon that he's using, you can modify their behavior so that they act like they're gelded, but they're not gelded. And so hopefully down the road, what I would like to see, and maybe I'm getting ahead of myself because we're way ahead of being able to do this, but be able to treat these horses that have either a scrotal hernia, which is another issue that we've seen, or are cryptorchid and be able to send them out on a contract such that they could get them gentled down to where they could take them and safely do the surgeries that they need in a sterile environment. And somehow be able to reward the owner that way, without having to take the risk of doing it out in the dust.

So that's one of the things that I could see. Also, as a veterinarian, we do it and they do it. Certainly, the young veterinarians that are doing it have a little more courage than I do maybe. But gelding a 20-year-old stallion scares me to death because they're just older. Oh my gosh, you know? And I mean, they're still doing it, but if you had horses out on long-term pastures, if you could treat them with an injectable that modified their behavior and booster them as necessary, I think that could be a very humane way of doing things. So hopefully that's where that will lead. But like I say, maybe I'm stepping ahead a little bit, but that's kind of the idea. So that project is ongoing. And then we are also doing a couple projects with USGS, and they came up with some money for collars, which is great; so, they collared 31 mares this year that were gathered, and then those mares were treated with GonaCon again, and released back onto the territory. And the benefit of that is, it still qualifies as research because now they're being followed, they're being monitored monthly and Madeline's helping with that. And all of those mares... Well, no. One of those mares actually fell prey to one of the cougars out there. So, there are, out there, some large cats that are preying on horses and we've known that. And some of those cougars are out there with another research that are being followed with collars as well.

But so, there's still 30 remaining. They have all paled up with stallions and other horses, and so those will be followed. The injection, the interval of the boosters was varied so, the effectiveness of what that interval is going to will be monitored to see whether they have foals or not next year. Because they're all running with stallions again, and they're also back out on the territory. So that's getting two different things going with those treatments. There are partnerships, too. They have partners out there that have helped with hiring of the personnel that they needed. They needed some really essential personnel,

and you know how slow it is in the federal government to get some of those positions advertised. So, there was some help with some of the local partners, with local government and whatnot, that helped place people that work at the corrals. And so that was extremely valuable. But also, a bunch of horses went to Tennessee this year.

They've already gone from three different territories, not just the Devil's Garden, but Devil's Garden coordinated it back to Tennessee for a Mustang Spectacular that is going to be held in June to train those horses. And the way that they've done it, nothing comes back. We're not shipping horses back and forth. They don't get to choose and then we keep the rest. They're all going to homes back there.

And again, some of those places back there, we're raising awareness that Forest Service does have some wild horses as well. And so those partnerships are developing. And they have worked with nonprofit networks to support some of the

adopters, some of the Plain adopters out there. That person in Maine is one of those. So, there are some really good partnerships being developed and being maintained up there.

And then they still have a 4-H Horse Challenge, which is what the picture in the background is, where some of these local kids, they get their yearlings and then they show them off in the summer and they do amazing things, some of these programs. I mean they have these horses dressed up in costumes and they're running them over logs, and they do fun things. And I was in 4-H, that was the best program I was in growing up. And so, I think that's marvelous that they can do that.

So those are some of the highlights from Modoc. And if you have any questions or want to know more, Charlie and Madeline are here, and so hit them up and ask them questions. But we also then go down to New Mexico and Dr. Tolani Francisco, of course, gave an update on and talked about this this morning. She is the Wild Horse and Burro coordinator down in that region. But those corrals are down in Bloomfield near to the Jicarilla Wild Horse Territory, which she spoke about. The district ranger there that's in charge is Jim Eaton, the corral manager is the young man that she referenced that we lost last year. And then the staff officer is very involved. His name is Nick Padilla, and we have a great animal caretaker named Megan Print that manages the horses or takes care of the horses down there.

It's a much smaller operation than up in Modoc, but still very valuable to what we have. And they do have a cooperative relationship. For example, if they've got room, Modoc can ship some horses down to them and then they can place horses. And then it's gone backwards too. A couple of the horses that went to Tennessee came from New Mexico back up to Modoc and then out to Tennessee, because different people want different style of horses. And the horses in Modoc have more of the draft horse breeding in them and they're a little bit bigger, whereas the ones down in Jicarilla are smaller. It just depends on who you are as to what kind of horse you want. So, they go back and forth also Bloomfield's hoping to, with the talks with BLM

They have expressed an interest in taking horses back from Bloomfield Corrals that are Forest Service horses also and placing them. So again, those are ongoing, and we'll be talking more with BLM about that.

Down there, yeah, they've adopted everything out too, essentially. Horses don't really stay there very long. Megan leaves them up for adoption a long time. The rules say that three events offered for adoption and then they're sale eligible. She pretty much ignores that and adopts everything. She keeps them out for adoption longer and it works. So that works great.

Again, they have a cooperative down there that Tolani went over that is active right now and does a really good job. They help with trapping horses and then bringing them in. Also, there are people that help place some of those animals. And the cooperative down there works very well. It's, of course, small scale than some other places. And she mentioned that some of the horses that they've trained, they're at the corrals, that are functioning as Forest Service pack and saddle stock. And we hope to expand that.

I keep talking with people, some different places. Some of them want money to do it and we don't have money to do it. But we also have some Forest Service personnel in different places that if they can get their supervisors on board and have the facility, that are willing to try and train a few horses. We really would like to do that and use federal horses for federal jobs, not just in the Forest Service, but without, and they can work overtime. And then of course they've placed horses from other places. So, I already mentioned that.

So then let's talk about a few other places just to update. Everybody knows, well not everybody, but Pryor Mountain horses up in Montana, that is kind of one of those places that you see in the news quite a bit. And the horses are a style of horse that a lot of people like. So, at that territory, BLM has 90% of that territory. So, they take the lead. And we have 10%. And currently they are updating the NEPA and developing the territory and HMA plans up there, and that's moving along very nicely. When it does get done, the 10% of our horses will go to Forest Service Corrals.

Go ahead. This is one of the areas that's been a problem. It's the Inyo National Forest on the edge of California and Nevada, Montgomery Pass Wild Horse Territory. And this is one where Scott has been involved because people don't

know that Forest Service necessarily has horses. They call BLM. And there have been a huge number of horses that migrated over to Mono Lake. And Mono Lake is a very fragile environment. Celeste is very familiar with this particular area. And there was a lot of publicity of course that we talked about last winter because they had so much snow then some of the die off was visible with carcasses and lots and lots of manure of course.

So, they are moving forward with their NEPA for that region. The comment period recently for the scoping recently closed. One of the things that that particular forest supervisor has been waiting for to do an emergency movement, the State of California is talking about finally entering a request for removal of horses from their land that's there. So, we're going to have to be moving horses out of there pretty fast because they are damaging that environment. And there are way, way too many. You should have about a hundred horses on that territory and it's not right there anyway. So, something's going to happen with there and hopefully there won't be the same die off that we had last winter. But it's in progress and they have a good association there to deal with as well.

Up on the Ochoco National Forest, they're moving forward with their territory plans and hoping to get funding for the Wild Horse Adoption Center. Those plans have been in the works and so we're just hoping to get funding to do that, and then get those little guys. Most of those, it's pretty forested where they are and it's pretty cold, but hopefully we'll get that moving along this coming year. So, the horses in BLM facilities, oftentimes the animals that are there, the majority of them that are there come from joint management areas, places where, oftentimes in region 4 for us, which is Utah and Nevada, where the greatest number of wild horses exist for both agencies. The removals are handled by BLM, and they go to the BLM facilities. So, a large number of the horses that are in BLM corrals, that's where they come from these days because they used to have room for horses from other places and other territories would send them there. But as you know, they're filling up we're trying to be more proactive.

Lifetime holding on contracted pastures. We have 11,000 plus animals. I'm not sure of the exact number, because it does vary a little bit. Some of those horses are old, so there is an attrition rate out there. We have horses in those pastures. Forest Service horses that were assigned to Forest Service horses range from four years of age to 28 years of age. BLM is in charge of assigning horses to their pastures. We don't have any contracts on pastures. Couple of reasons for that. Number one, you have to have a stream of money, but number two, we don't want to compete. We have 20% of the horses and we don't want to compete with contract for BLM, but in the future, we'll be talking with them to see how that needs to be handled.

But the cost for keeping a horse there for lifetime, if you have that four-year-old that was maybe a three-year-old when it went out there, that could be 30 years. So that is a big cost for taxpayers. I know that that's one of your concerns and it's definitely a concern for us.

The Forest Service recently received the billing from BLM for the horses in their facilities for the last couple of years, and management's trying to decide what to do with that; we'll see what management can do, but it's giving them a little bit more awareness above those of us in the room that there is a need to pay our bill. And so hopefully that'll get done.

So, our funding, we still need that consistent funding. We're still chasing it. Again, we've raised a lot of awareness that Forest Service does have a need, does have wild horses and burro, does have a program in the nation. And so hopefully that's going to lead to something in Congress, some acknowledgement, and some direct allocation from Congress. But we have not seen that yet.

We're still working on creative sources for money. We've got some partnerships that help with costs and that's great. It's small potatoes, but every potato counts. And as we find money, we can do something with it. But we've raised a lot of awareness in the range community, wildlife communities, and some of those other things that are supportive of getting something accomplished as some of you know. And so hopefully we're going to continue to do that and hopefully in the end get that acknowledgement from Congress and a real appropriation for our program.

So, the goals and strategies. There aren't too many things different from June. This slide isn't very different from June, but we are working, as some of the things I mentioned, about treating with contraceptives. Treating with contraceptives and

releasing, one of the holdups for that, and I know that this probably applies to BLM as well. Some of the old plans that were written back before things really existed did not provide for us to do that. And particularly some of them say that until you reach AML, that is not something that is allowed. We are correcting that as we can. We have several territories plans in process right now. The one down on Heber that Dr. Francisco talked about is kind of our model so that it leaves it open. Because what we have today is not what we're going to have tomorrow. We're going to have better and better things hopefully, and things that we can do.

And we don't know all of the intervals that are needed for boosters or any of that stuff. So, the new plans will leave that more open, and we'll be able to get around that thing. But also, it's something that we're very supportive of and trying to increase. There is a darting program down in New Mexico, and we have the programs going up in California that are starting to try to emphasize that as much as we possibly can. But in some places, there's still resistance, and part of that resistance is because legally they can't until they're able to modify some of the NEPAs. But we still plan to keep working as we can on each of the areas and some of those in conjunction with BLM to try and reach AML, because again, we do have, especially in region 4, a lot of joint management areas and we still rely on them very much to help with that program. We are trying to get that funding. That's the most important thing in some ways. And the public awareness. And still, as Dr. Francisco mentioned in New Mexico particularly, we have real issues with people misconstruing what a feral horse, a horse that is not supposed to be there, that came from someplace else, versus the progeny of those that were there in 1971 and are actually wild horses. So, we continue to put effort into trying to keep those two populations separate and to deal with both populations.

Obviously, we sure would like to get even just six million. If we get six million, we could build and expand facilities, but then we need another 6 million for the staff. But that would help a lot because we really need to take the pressure off of BLM and we need more of our own to be able to do that.

Partnerships, yeah, there are some real templates out there, and so hopefully we'll continue to do that. And again, we're in talking with BLM about getting the horses that are assigned to Forest Service from those joint ventures back to our own corrals to reduce the expenditures in the future, because the costs that we owe them now go up every day we have horses in their care. And so hopefully we're trying to slow that down a little bit.

Go ahead. And so, we have challenges, but we're trying to manage both the ecosystems and the animals on this program, and I think we are making some headway, but we've got a long way to go. And we really appreciate your help and your insights, and we do pay attention to the recommendations. We may not be able to do everything that you think we should do. We think we maybe should do that too, maybe can't do it, but we value very much your insights. Any questions?

Ms. Carlisle: Thank you, Dr. Drotar. Commissioner Higbee.

Commissioner Higbee: The one time I looked at a presentation that Modoc County had put together was a 4-H and you touched on it a little bit here. How do the 4-H clubs go about getting connected with that program?

Dr. Drotar: I am going to refer to Charlie.

Charlie: Thank you. So, we do a government-to-government transfer from the US Forest Service to the Modoc County and through the local UC Extension Advisor in 4-H programs. That's how they obtain the horses. And then we partner with them for pickup. And the UC Extension Office provides oversight for the challenge itself.

Commissioner Higbee: So, it's actually done through county extension?

Ms. Johnston: UC Extension 4-H, but the mechanism to transfer is through a government-to-government transfer from the US Forest Service to Modoc County. And then that alleviates the need for the youth and their parents to adopt.

Commissioner Higbee: So, the horses don't stay with the individuals, they come back to the Forest Service?

Ms. Johnston: They stay with the individuals. It's their horse they can choose to keep for life, or a lot of them decide to train them for local ranching communities to use within the communities of California and now also southern Oregon.

Commissioner Higbee: That's a cool program. Good job.

Ms. Waddell: Okay, Just quick question I was going to clarify. Charlie, was that in use of the transfer authority? I think that's what he was getting to. What is the authority? Are they being sold, adopted to the county, or are you using the transfer authority?

Ms. Johnston: We're using the transfer authority through written requests.

Dr. Drotar: We'd love to expand that. If you have 4-H clubs in your area, we could expand it.

Dr. Iacona: Sorry, Charlie... Go ahead.

Commissioner Higbee: No, go ahead.

Dr. Iacona: Sorry. I would like to ask you some more questions, because I think this 99% adoption strategy is amazing, but I've seen some of it from the sort of Mustang horse owners' side of things, where you guys have these amazing, I don't know, Facebook pages and auction paperwork. I feel like you do a really good job of selling the idea of adopting a Devil's Garden horse. Can you talk a little bit more about some of the strategies that you've used just for outreach.

I mean, this last adoption that you just had, people on the sort of Mustang side of things, everybody's counting down the minutes until the auction so that they can bid on the horse that they've been looking at. So how did you make that happen?

Ms. Johnston: We strive to make it very much a grassroots effort, as Dr. Drotar has talked about. We don't have a lot of funding. Our funding comes from our regional office levels, and the funding that we do get is to cover surveys, gather, process and holding, placement, and marketing. And so we have to make the best use of what we have.

What we do have is an amazing volunteer that takes photos and runs the Facebook sites and is very creative. We have a team, myself, Madeline, our volunteer and our corral staff that work very closely together to be able to provide as much information as we can to pair the right horse with the right adopter. And we're lucky. People love the Devil's Garden horses. We've recently started accepting horses from other areas and we try to market them equally the same. And so you might've seen them at Gavin Peak horses have also caught on and they're a very different horse than the Devil's Garden, not only in temperament but in build.

And so, we try to keep it very grassroots, have that almost one-on-one interaction with our adopters, and keep it alive well. Because we don't have options outside of our two holding crowds to hold horses. And so yeah, we're coming off of a really exciting week. The week of December 4th we placed 300 horses and we're excited to get those into new homes and we're excited to see what folks do with them. And the adopters themselves also help us carry that message because they share their story, and they share the beauty and the grace and the versatility of these horses for us.

And so, it's grassroots, family approach and I think that helps it feel more real to a lot of people because it is. And Madeline and I are both Devil's Garden horse owners. We won't say how many though. So, it helps for us to have that one-on-one talk like, "Hey, these are real challenges that we faced with our own horses." Because it's not all roses and sunshine. Not every horse is going to be easy to gentle. But to sum it up, grassroots, amazing team, amazing volunteer, and amazing adopters.

Dr. Iacona: Thank you.

Ms. Carlisle: I just want to point out that Return to Freedom, we have 12 Devil's Garden horses, and we're big fans. Other questions? What, is this group tired or so? I want to know what happened to that 1%. Is that just one horse, couldn't find a home? Charlie took it and it doesn't really count.

Ms. Johnston: No, I'm cut off. My husband cut me off. No, so the longest that we've held one single animal in our facility is 17 months, and that's typically an older Plain Bay mare that gets looked over. And so that's where the 1% typically goes.

Ms. Carlisle: I'm a big fan of Plain Bay mares. So, you guys know. Is this group tired? Is that what I'm reading here?

Ms. Carlisle: That's true. We might be there. Thank you for the presentation. Impressive as always. You all have much different challenges. Some are similar but a whole different ballgame, so appreciate it. I'm going to pass it over to Bryant to sort of take us out with some housekeeping and I think we might be shutting down a bit early today.

Advisory Board Discussion and Wrap Up

Mr. Kuechle: Sounds good. Yeah, we have some time held for the board, but it sounds like we don't need to utilize that time now. Is that accurate?

Ms. Carlisle: No, we're going to do some logistics planning for tomorrow.

Mr. Kuechle: Sounds good. Okay, so that'll conclude today's meeting. So, just some housekeeping before we close out. For the public and those viewing at home, this meeting will begin tomorrow. It's scheduled for 2:15 Mountain and Arizona time. The board is going to be on a tour in the morning, so we're going to try to hit that 2:15 mark as close as we can. But bear with us if you tune in at 2:15 and we're not quite settled in. So that's the plan for the viewers and for the public. And there'll be a public comment period time tomorrow afternoon as well. And that concludes this. And then after we conclude the video streaming, we'll do just some housekeeping logistics for the board before we depart. So, thank you very much.