

Wild Horses and Burros managed by the Bureau of Land Management A Case Study

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Current situation:

The law that dictates management of the Wild Horses on Bureau of Land Management (BLM) land is the Wild Free-Roaming Horses and Burros Act of 1971. (WFRHBA) The Bureau of Land Management, after the legislation was passed, were tasked with providing habitat for Wild Equine on about 200 million acres “It is the policy of Congress that wild free-roaming horses and burros shall be protected from capture, branding, harassment, or death” states the legislation. There are a number of amendments and riders of this law that have changed management of the Wild Horses and Burros in the last 46 years and the acreage has been cut by 32%. (U.S Department of the Interior 2017)

Because the Wild Horses on BLM land in America have no natural predators there numbers increase 15- 20% every year. It was determined in 2013 by the National Academy Of Sciences that there is no effective, easily deliverable fertility control that can be used to manage Wild Horse population growth. The vaccine porcine zona pellucida (PZP) was found to only work on females for one year and it needs to be hand injected. The ground-dart method of injecting PZP is not effective because horses tend to avoid human contact and the vast sizes of most herds make individuals difficult to track. (Palmer, 2013). Volunteers are being trained to help manage herds and dart with PZP and there is precedence that this can help manage population. (Masters, 2017)

The BLM determines Appropriate Management Level (AML) for Wild Horses and Burros. The AML is the number of Wild Horses and Burros that can thrive in balance with public land resources on the range. The current number is 26,715. Right now there are estimated 67,027 Wild Horse and Burros on a range of 26.9 million acres managed by BLM and they have spread out an additional 4.5 million acres. So there are almost three times the number of Wild Horses on BLM land that is determined to be healthy for the horses and the rangeland. (Yardley, 2016) In some areas it is ten times AML. There is controversy among horse advocates with the way that AML is figured by the BLM. Areas on BLM land where Wild Equine roam are called Herd Management Areas (HMA). When reviewing case studies that review water and food allotments for Wild Horses in many regions of BLM land a prominent Horse Advocacy group Horse Campaign’s website states “bighorn sheep can be found on seventy-five percent of Nevada’s Muddy Mountain HMA and are allocated water from the National Park Service (NPS), water guzzlers and specially made dams. These water developments have allowed the HMA to be turned from seasonal into year-round bighorn habitat... but are not taken into account in determining wild horse and burro AMLs for the area, despite a federal mandate that

‘all range improvements [...] be installed, used, maintained and/or modified on public lands [...] in a manner consistent with multiple-use application’ (43 CFR 4120.3-1 (A)).”

The first person from the general public to speak at the Advisor’s meeting was a local Veterinarian who encouraged gelding of males as an appropriate measure. The past concern was that gelding would affect behavior too much. Though gelding is permanent, can ultimately affect vast population reduction (over mares) and the effects are well known.

An amended version of WFRHBA dictates that Wild Horses over the AML are “excess” and can legally be rounded up and relocated. There are currently about 72,674 Wild Horse and burros living off-range in 10 different states at an expense of 49.5 million dollars in 2016. This annual cost is consistent for many years back. And this cost will continue every year as horses can live up to 40 years. The funding for these round ups has to go first to preserving habitat where the sage grouse has been found as it is was an endangered species and law mandates it’s habitat be preserved first. So areas where it is perceived Wild Horses are threatening endangered species habitat funding goes toward “rounding up” Wild Horses that roam there first. (Yardley, 2016) The Sage-Grouse was just taken off of the Endangered Species list (U.S Department of Interior, 2017) so this will change priorities for the Wild Horse. Funding for more extensive relocation has not been forthcoming and it is so expensive that it does not make sense to continue. The wild horses are very expensive to hold off range for the rest of their lifetime, estimates are billions of dollars in the projected near future.

The Wild Horses currently are living in drought stricken conditions. In some areas the horses are waiting in line to drink from small watering holes and they are leaving known areas in search of water. They are moving out of BLM land into private land (Yardley, 2016). When droughts get really bad and the range is overgrazed horses begin to starve to death.

They have the resources now to put down horses in an emergency fashion for small herds but the anticipation is that thousands of animals may be in need of emergency euthanasia and there are not the resources for this (Yardley 2016). After reviewing the BLM website, the litigation presently in courts suing BLM and the expert interviews, one may begin to see the BLM can not do right by anyone- that they are unfairly expected to work miracles in this unusual situation where normally perceived “domestic” animals are expressly “Wild”. They are tasked with managing an ecosystem where the “land... devoted principally but not necessarily exclusively to their (Wild Horses and Burros) welfare in keeping with the multiple- use management concept for the public lands”. (WFRHBA, 1971) This is how the original legislation read and is quoted on Horse Advocacy Websites, though it has been amended and no longer uses this phrasing. Of course the BLM must adhere to many Federal laws that mandate protection of endangered species- the Sage Grouse specifically in this region through The Endangered Species act of 1973 as well as the 1876 mining law, 1934 Taylor Grazing Act, 1964 Wilderness Act, 1970 National Environmental Policy Act, 1976 Federal Land Policy and Land Management Act and the 1978 Public Range Lands and Improvement Act. Cattle grazing on BLM

land is also a factor as BLM is tasked with being multi-use and ranchers have lease rights in some areas but the thinking is they compete with Wild Horses for AMLs . Cattle are allotted 1,000,000 AML's currently (Department of the Interior, 2017)

There are other variables affecting rangeland resources. Notably- Cheatgrass (*Bromus tectorum* L.). Cheatgrass is an Asiatic introduced grass that is unpalatable to herbivores for most of the year. So herds overgraze the good tasting grasses and leave cheatgrass which grows on about 154 million acres of the American West- Great Basin area. When the native grasses are overgrazed cheatgrass has no competition and becomes a monoculture and makes the rangeland especially susceptible to fire. When fire sweeps through sage rangeland it kills the sage which takes 3-7 years to grow back. So when fires strike often Sage does not have a chance to gain a foothold. Sage is important habitat for many species. Experts predict that cheatgrass can change the fire regime from a once every 100 years to fires every three to seven years. This could potentially affect 100 million acres and threatens at risk species of the region with extinction. (Masters, 2017). In an interview with ecologist Dr. Barry Perryman, rangeland ecology professor at the University of Nevada, he describes the current situation affecting millions of acres of range land as a "Cinder Bowl" alluding to the "Dust Bowl" that struck America's home land in the 1930's and led to devastating agricultural, economic and social consequences. He also describes the Wild Horses being rounded up and "warehoused". The BLM does not use that word in any capacity to describe their relocation of Wild Equine.

It is puzzling to read in Board Meeting notes Alan Shepherd, State Program lead in Nevada, describe observing Wild Horses- "Horses are going anywhere and everywhere they want to at this point in time looking for food and water. So extended drought periods here... we're doing a lot of work here just trying to bandage our program together and manage the horses... And any time of the day, you could have 40 head of horses standing waiting to get a drink... They're looking for food and water. As the populations expand... the population, as they're building, they're building outside. They're moving, they're looking for new homes, new territories." (Yardley, 2016) When the Wild Horses search off BLM property for water they are then considered legally "excess" and can then be rounded up and shipped off property with very expensive taxpayer's dollars.

The only thing that the experts can agree on in this situation is that is unsustainable. At the 2016 advisory meeting there seemed to be a consensus that the situation is set on an unsustainable trajectory unless innovative solutions are put into place immediately.

Land restoration of any kind is not being attempted unless it is with emergency funding after fire. There was talk in the meeting that the worst hit areas are Agricultural zones 5 and 8 so any attempts at restoration are futile. There was talk of restoration but that it was too expensive. (Yardley 2016) The legislation states "Secretary shall manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural eco-logical balance on the public lands." It is puzzling to see the charges of the American Wild Horse essentially sitting on their hands when there are restoration possibilities that are not being attempted. There was talk of working to acquire low

interest loans to address more of the problems. The phrase “thriving natural eco-logical balance” alludes to the term “biodiversity”. Biodiversity is defined as “the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part” by The International Union for the Conservation of Nature. (Theis, 2012)

It is quite problematic when reading through the board meeting notes and one finds Board Members selected by the Secretaries of Interior and Agriculture describing doing things to Wild Horses (branding) that are expressly forbidden on the first page, first paragraph of the piece of legislation they are tasked to uphold.

The Economist article summarizes the situation quite well, “Last year a group of mostly western senators and members of Congress asked the BLM to outline different scenarios for bringing wild-horse numbers under control. Bluntly, none looks sustainable. In one, more than 160,000 animals would be added to BLM off-range corrals and pastures, for a 40-year cost of \$4.6 billion. Another involves adding 15,000 horses to corrals and injecting up to 27,000 fertile mares a year with PZP.” (Lexington, 2016)

The social aspects of this issue are very complicated. It is important to refer to The Wild Free Roaming Horses and Burro Act of 1971- "That Congress finds and declares that wild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West; that they contribute to the diversity of life forms within the Nation and enrich the lives of the American people". The complex, intimate relationship between humans and horses is very old and is not going to change any time soon. Because of horse's association with royalty, companionship, service and war our perception of them transcends reason and delves into the emotional. Eating horsemeat is banned in the Book of Leviticus and it was made a crime punishable by death in France in the 16th century. In many stories throughout time eating horsemeat was associated with social breakdown, poverty, war and revolution. The legislation alludes to this calling them “living symbols of the... spirit of the West.” Because of the emotions that horses naturally evoke in humans- management, research, photography and reporting on this issue are laced with very complicated human reaction. The Internet is alive with compounded misinformation on the subject. Photography is being used to spread information and unfortunately, you can never really be sure where these photos were taken or what they represent, but they are sure to illicit strong emotional reactions in Americans and leaders that have to vote on policy for horses know this. Horses are being used today in therapy with humans that supersede logical thought; similar work is done with dolphins. Animal rights activists have gone to great lengths on American soil to destroy horse meat rendering plants, committing some of the most severe activism tactics ever done with explosives on in the states to make sure even the meat was destroyed. There was quite a bit of sympathy for this type of reaction to horse- rights activism, which is very rare for acts of arson. (Rosenbraugh, 2004) Keeping this in mind with planned legislation is very important. It is simply a waste of time to put anything on the table that puts the horse’s dignity in question in America. It will be met with an onslaught of highly emotional backlash from Americans and is a waste of taxpayer’s money. There has been and continues to be proposed funding initiatives and perceived threats to the legislation that could legalize the

slaughter of healthy BLM Wild Horses but that day will undoubtedly be postponed indefinitely through the courts before anything like that is done with Wild Horses and Burros while in the Department of the Interior's charge.

There is no data on Tourism and the money that Wild Horses are bringing into BLM areas. This is an untapped area of potential resources for the Wild Equine.

.Location: Bureau of land Management controlled land where Wild Horses and Burros live and the outlying area they are searching into. Map shows Herds in Nevada, Wyoming, Idaho, Montana, Colorado and California

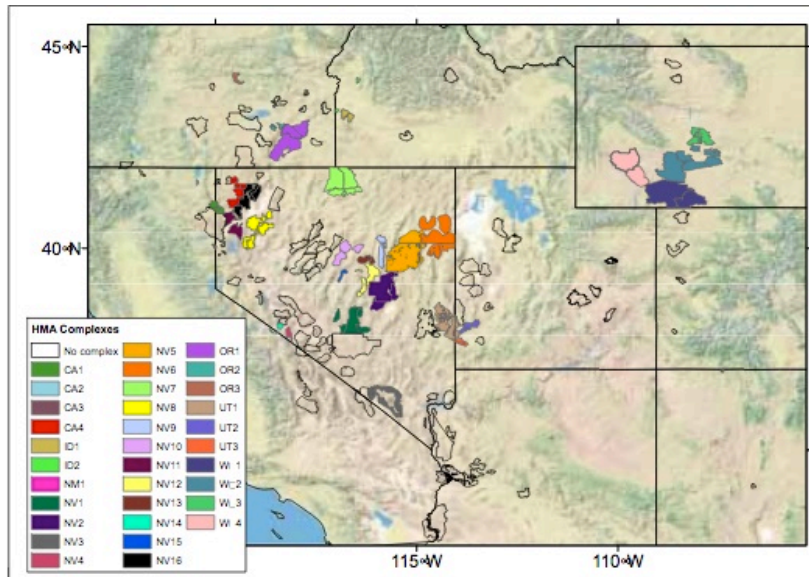


Figure 1. This map shows Herd Management Areas managed together or with U.S. Forest Service Wild Horse (or Burro) Territories as complexes. Aggregating neighboring Herd Management Areas on which free movement of horses or burros is known or likely into Herd Management Area complexes can improve data quality and enhance population management. Herd Management Areas shown in white are not managed as part of a complex. SOURCE: Mapping data and complex information provided by the Bureau of Land Management.

Key Players: Livestock Industry, Natural Resource Management, Wildlife Management, Veterinarian Research Position, Humane Advocacy, Wild Horse and Burro Advocates, Equine Behaviorists, Washington D.C (All branches of Government), BLM, American Public,

Background: Although The Americas were home to the original equines 10,000 years ago they were the size of a small dog and became extinct from hunting before they became the creatures they are today. The first modern horse arrived in the Americas in 1493 with Columbus's second voyage from Spain. Horses were used along side American's to build the country before the Industrial Revolution. Horses were used in war, transportation, and construction, farming, herding, hauling and served as a companion to millions of American's building the frontier throughout our nations history.

Many Native American tribes took the horse as their companion. Native American's became adept horsemen and women and became entwined with many cultures in the indigenous cultures of the West.

After the Industrial Revolution and motorized farm equipment and automobiles became the mainstay, many horses were abandoned and eventually formed herds on the Great Basin rangeland.

Part of their perception as "pests" from the farming and ranching communities persist today, as resources are limited for multi use Rangeland and the horse affected rancher's livelihoods. The years surrounding World War II and before the Wild and Free Roaming Horse and Burro Act of 1971 was put into place, Wild Horse and Burros were the target of persistent harassment from land owners who hired "mustangers" to chase Wild Horse down with fixed wing aircraft, tie them down and truck them off to slaughter. Much of the political work to protect Wild Horses was done by one woman, Velma Johnston, "Wild Horse Annie" and Congressman Walter Baring of Nevada. Wild Horse numbers got down to 18,000 and their efforts worked to secure legislation protecting the Wild Horse from further threat. (De Steiguer, 2011)

Goals and Objectives: To understand the current situation with Wild Horses and Burros on BLM rangeland and generate innovative solutions toward sustainable land management.

Core Readings: 2016 Board Meeting Transcript, Government Websites, Statutes, Journals, Newspaper articles, Books

Research Methods: Journaling, Interviews

Findings/ Next Step: It seems clear that Bureau of Land Management is mismanaging the rangeland that they were charged with protecting and preserving. They have not been following the basics of the legislation and they seem in dire need of restructuring as a culture of inaction prevails in their approach to management.

Because the problem is so complicated and multi-faceted solutions were generated specifically on increasing resources and AMLs within BLM rangeland. If AMLs increase there will be an improved ecosystem in which the Wild Horse and Burros can thrive with insured protection for the people of the region, the future costs to the American people and the biodiversity of the habitat. Increasing production value of the habitat of Wild Horses can in turn increase the habitat of a vast array of species.

Although it is true the situation with drought and cheatgrass is unprecedented in the American West it is not without similar environment disaster precedent and precedential management protocols. In the 1930's during the Dust Bowl, president Franklin D. Roosevelt created the CCC a group of workers that did 100,000s of hours of work doing restoration work, planting trees, building dams, digging swales all working by hand

without motorized equipment to prevent topsoil erosion. Their work was vastly successful and can be modeled and observed nearly 90 years later. The swales in particular that were done in the Sonoran Desert can now be located from google maps as distinctly dense greenery compared with the adjoining browner topography. (Macintosh, 2014) These large swales have been found to be teaming with bio-diverse grass species, trees and shade with loose, fertile soil, you can see water trails off shooting and creating more greenery for miles from the larger swales. No reseeding was done at the time. The engineered design of these swales naturally pooled water and seed to provide climate for diverse species. There is concern now with the monoculture of cheatgrass that there is not enough native seed to do this now. Reseeding could be focused on the swales to create future reseeding sanctuaries ready to wind disperse seed.

Tourism on BLM land is a resource that seems vastly untapped. There is no sign of income from Wild Horse tourism from any literature that the BLM provides or elsewhere. Surely much can be learned from many National Parks in America and abroad that could guide the way toward sustainable business models in creating observation for an American public in love with Wild Horses of the West. This can generate income to create more resources for the Wild Equine.

Guzzlers are a necessity in the Bighorn Sheep population in the deserts of America and need to be implemented immediately for the Wild Horse on BLM land. There are companies that make 1000-gallon water catchment devices specifically for wildlife. A much less expensive, volunteer built cement camouflaged systems can be put in immediately. There are models for this that has been in place for over 35 years. These will keep the horses on BLM land and water runoff areas could be reseeded with appropriate grasses to create habitat. And then AML needs to be refigured to account for these resources.

Very promising bio-herbicides are working their way through EPA standards now that could very likely change the cheatgrass monoculture very soon. A bacteria has been discovered called *Pseudomonas fluorescens* or ACK55 that will slowly make the soil inoculated with it inhospitable to cheatgrass and other invasive grass species. Similar methods have been successful in eradicating invasive species on public lands. This will be no small task but it is a problem with many qualified people working together toward solutions. (Dickie, 2015)

Debrief: The subject of Wild Horses and Burros on public lands is arguably one of the most complicated issues facing National Land use in America today. It seems no side can agree on much except that the current situation is not sustainable. The time it takes to truly understand and study the situation is time we do not have. The current situation is dangerous for the people who live near BLM land, it is dangerous for the wildlife near and around BLM land and it economically an obvious poor business plan moving forward. Managers need to throw the whole kitchen sink at the problem and use a multilateral approach to mitigate this rapidly escalating ecological disaster.

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