Viewpoint

Forum: A Framework for Resetting Wild Horse and Burro Management

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On the Ground

- There are now over 130,000 head of wild horses and burros in the Bureau of Land Management program.
- Management tools in the original authorizations (Wild Horse and Burro Act; Public Rangelands Improvement Act) have been inhibited or banned by subsequent appropriation riders.
- The original framework for horse and burro management has been undermined, leading to on-range populations in excess of legally mandated levels.
- New, creative approaches to horse and burro management are required to bring populations back to legally mandated and ecologically appropriate levels.

Keywords: wild horses and burros, appropriate management levels, horse management areas.

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Federal management of wild horses and burros (WH&B) began in 1959 with the passage of H.R. 2725 (The Airplane Act, Public Law 86-234, 1959). This authorization prohibited the use of motorized vehicles and aircraft and the pollution of waterholes for the purpose of hunting, capturing, killing, trapping, wounding, or maiming of any wild unbranded horse, mare, colt, or burro running at large on any of the public lands or ranges. In 1971, the Wild Free-Roaming Horses and Burros Act (Public Law 92-195) became law, placing the animals under the jurisdiction of the Secretary of Interior for the purpose of protection and management to achieve and maintain a thriving ecological balance on public lands where horses and burros were present at that time. The act has been amended on four occasions since passage (1976, 1978, 1996, and 2005).[1]

In addition to direct amendments to the act, several Interior appropriation bills during the last two decades have contained language that has inhibited the Bureau of Land Management's (BLM) ability to keep on-range horse and burro populations at appropriate management levels (AML). These language riders have eliminated the use of euthanization and also restricted sales for commercial product use. Riders to USDA appropriations have also restricted equine slaughter inspections causing disruptions in wild horse and burro adoption demand, substantially increasing the number of off-range equids managed by the BLM.[2] Off-range management costs have increased from 59% of the total program budget in fiscal year (FY) 2012, to 63% in FY 2017, housing over 45,000 excess animals.[3]

Because of the ever increasing numbers and associated costs of housing excess animals, only ~5% of the program budget went to actual on-range population management in FY 2017 and costs for long-term care of 45,000 animals was $49 million in FY 2017.[3] Without factoring in cost increases, accumulated costs over the next 20 years will easily exceed $1 billion to care for the current long-term cohort.[4] Managing horse and burro populations on the ground has been curtailed by litigious horse and burro advocacy groups actively lobbying the US Congress, which promotes habitat destruction under the guise of the controversial natural regulation theory.[5] Habitat destruction by naturally regulated horses was prominently documented at the Nevada Wild Horse Range on Nellis Airforce Base in 1991 by the New York Times.[6] AML was set at 1,500 head, but without gathers to maintain numbers, the population swelled to ~6,500 head before starvation and dehydration killed ~2,000 head before the implementation of emergency gathers. Habitat degradation occurs in large part because there are no predators to implement the predatory component of natural regulation. The old, weak, sick, and

Table 1. Low and high AML, population, and predicted 20% of low AML annual population increase by state, 2018[3]

State	Low AML	High AML	Current population	20% of Low AML
Arizona	1,340	1,676	7,060	268
California	1,446	2,200	10,971	289
Colorado	423	812	1,702	85
Idaho	391	617	580	78
Montana	90	120	155	18
Nevada	7,597	12,811	44,017†	1,519
New Mexico	83	58	205	17
Oregon	1,373	2,715	4,731	275
Utah	1,102	1,956	5,192	220
Wyoming	2,490	3,725	7,338	498
Total	16,335	26,690‡	81,951	3,267

AML indicates appropriate management levels.
* Only HMAs included.
† 5,088 are in herd areas.
‡ Official: 26,715.

opportunistically available animals that typically fall prey to the suite of predators that affect most species may linger in life for years, significantly adding to overpopulation.

The current on-range population of horses and burros is about 82,000 head (Table 1).[3] Inclusion of a 20% anticipated foal crop in 2018 would raise the number to about 98,300 (Table 2). Habitat destruction has increased because of overpopulation, primarily around preferred habitat areas.[7–9] Although site-specific quantitative data are sometimes lacking, scientists and managers consistently report that the amount of surface area affected is increasing and the severity of the impact is worsening. In more and more instances, severity has reached the point of no return. Recovery will take decades or longer to stabilize, often at a lower ecological potential because of the complex interactions among increased soil erosion, decreased soil water holding capacity, the loss of soil nutrients, and long-term to nearly permanent changes in vegetation composition and structure. Research has documented these and other ecological changes from sustained, season-long, heavy use by numerous herbivorous species.[10–12]

Scientists and land managers generally agree that a critical point has been reached.[1] The status quo cannot continue, otherwise it will jeopardize future management and use options for many public lands (Fig. 1). For instance, the success of the massive sage-grouse planning effort of the last 20 years is in peril.[14] Throughout much of the Intermountain West, the quantity of late-season brood habitat (meadows or other green wet and damp areas) is the limiting factor for sage grouse survival.[15] It is no surprise that this type of habitat is also the preferred habitat of federally managed horses and burros.[16] Virtually all herbivores prefer green forage over standing cured (dry, dead, or otherwise coarse) plants. Year-round overuse by horses and burros in many areas has literally destroyed these habitats where their ranges overlap (Fig. 2).

Table 2. Estimated population characteristics at low AML reset, 2018

20% of low AML annual reproduction	3,267
Five-year adoption mean	2,514
Needed increase (market absorption)	753
2018 On-range population estimate (1 March)	81,951
2018 20% Estimated foal crop	16,390
2019 Predicted on-range population	98,341
2018 Off-range population (1 May)	45,295
2019 Total population estimate	143,636 (sum of on- and off-range)

AML indicates appropriate management levels.

Figure 1. Resource damage at Oreana Spring in the Seaman Herd Area, Nevada, 2018. Photo courtesy of Sam Styles, Caliente Bureau of Land Management.

Framework for a New Approach

Many have discussed the need for change, but to our knowledge no actual management plans have been offered that will lead to a clear and acceptable conclusion. It is obvious that the current paradigm is failing. Therefore, we propose a reset of the current Wild Horse and Burro Management program. We choose the term "reset" because management infrastructure and protocols remain in place, with the exception of long-term holding facilities that will no longer be necessary.

Figure 2. Horse overuse in shared wildlife habitat (no cattle use since 2004), Elle Spring, Caliente, Nevada, 2018. Photo courtesy of Michelle Oliver, Caliente Field Office, Bureau of Land Management.

The core tenant of the first phase of the reset plan is to reduce all horse and burro populations to the low end of the Appropriate Management Level on all Herd Management Areas (HMA). All areas outside of designated HMAs that horses and burros currently occupy, including designated herd areas and all other locations where horses and burros are present, will be permanently zeroed out by complete and total removal (including all future years). The resulting status will meet the requirements for location and numbers of animals designated by the original authorization act.

Resetting the on-range population numbers to low AML (about 16,000 animals at the current sex ratios) at an annual fecundity rate of 20%[13] will yield an annual population increase of approximately 3,300 animals. The previous 5-year (2012–2016) annual adoption rate averaged about 2,500 animals. This would only require identifying adoption homes for about 800 additional animals per year, an effort that would be a reasonable objective. Resetting to low AML also makes deployment of contraception product and delivery reasonable. Estimating contraception delivery to about half of the low AML mares (about 8,000) would further reduce the 3,300 annual excess to about 1,650 animals, almost 1,000 animals fewer than the average 5-year adoption rate. Using low AML as the target population also allows for a time buffer if gathers cannot be arranged efficiently. If in any given year, a gather cannot be scheduled, the BLM would still be in compliance with law and policy regarding horse or burro population high AML within any specific HMA. A population reset to low AML provides reasonable probability for a successful, sustainable Wild Horse and Burro program. As individual HMA populations increase, high AML can then be used as a trigger to initiate controls. When the high AML milestone is reached, the BLM would then utilize all control methods outlined in the original congressional authorizations.

Phase two will end all long-term housing and care of horses and burros by the taxpayer, phasing out the need for long-term care expenditures and allowing future program funding to be redirected to on-range management activities, including contraception delivery, gathers, adoption, and habitat restoration and monitoring programs. Phase two addresses both current and anticipated off-range horse and burro populations. It is obvious that reducing all on-range HMA populations to low AML and zeroing out all other on-range populations will create a pulse of animals that must be disseminated into some combination of markets. The 2018 population of off-range animals is about 46,000. The implementation of phase one will generate at least another estimated 82,000 animals (based on a 20% foal crop for 2018). Combining on- and off-range animals will provide about 127,000 head that would then be considered as off-range (Table 3).

Because over 60% of the annual WH&B budget is directed to off-range animal care, we propose that the annual adoption program remain in place but be augmented by identifying novel markets that can absorb the exceptionally large pulse of about 127,000 animals. By novel markets, we suggest a few options for disseminating excess animals into the public sector to shift the burden of administration from taxpayer support to the private sector. First of all, the actions necessary for excess removal and dissemination must be conducted within the parameters of responsible husbandry practices and fiscal responsibility. We propose that the on-range WH&B population reductions previously described occur across the next 3 to 5 years and be maintained in perpetuity. However, the length of this transition period will depend on the logistical capability of BLM staff for planning and executing widespread gathers. The speed of progression also will rest on the availability of qualified roundup contractors and aircraft, and of course on the ability of horses and burros to avoid capture.

Table 3. Market absorption characteristics, 2018

2019 Total population estimate	143,636
Subtract low AML	16,335
Available for initial (3-year) market absorption	127,301
Available for absorption thereafter at low AML	3,287
Available for market absorption thereafter at 50% contraception rate of low AML	1,644
Current 5-year average adoption rate (no./yr)	2,514

AML indicates appropriate management levels.

Implementation and Outcomes

Once implemented, a single increase above maximum AML on any individual HMA will jeopardize the future of rangeland resilience once again and should not be tolerated. History has clearly shown that minor expansions above high AML typically result in sustained populations an order or two of magnitude above high AML. The care and maintenance of off-range WH&Bs will be permanently removed from federal responsibility, both physically and fiscally, within the 3 to 5 year window. The future care and maintenance of current off-range and pulse excess WH&Bs will be shifted to the private sector. The annual number of excess animals from the reset populations should be at a level low enough to be absorbed by the current annual adoption demand.

Shifting the disposition of current off-range and pulse excess animals could be accomplished first by the issuance of a sequence of Request for Proposals for economically profitable and humane (nonlethal and socially acceptable) approaches to repurposing all excess WH&Bs. These Request for Proposals could be modeled after current long-term holding contracts regarding husbandry and health care, with the additional requirement that ownership of all animals would be transferred to the successful contractor, and all horses would

then be kept in an appropriate, humane manner until their natural death. The imposition of mandated care until natural death will eliminate the possibility of generating funds through marketable products derived from slaughter. Given this, there would be no apparent means of federal funding for excess pulse animal care. Without a marketable product to generate sustaining funds, there must be initial financial assistance provided to facilitate the privatization process. Current off-range animals could be transferred utilizing current BLM program funding, with a sunset of 3 years.

The pulse excess would require an alternate provision for generating sustainable operational funds. One potential means to generate private sector funding for the ownership transfer is to create tax-saving incentives through charitable contributions or transferable tax credits directly linked to the care and maintenance cost on a per-animal basis. As an example, for each individual animal a qualified citizen or advocacy group officially takes under their control, they would receive a transferable tax credit equal to the per head annual cost of care and maintenance based on current market value. That group or citizen could then either keep or sell the tax credit to a person or entity with a tax liability. In addition to or in conjunction with the tax credit, any US citizen or taxable entity could provide funding directly to an officially recognized advocacy group, or individual, involved in the care and maintenance of excess animals through a charitable contribution. For each contributed dollar given for the care and maintenance of WH&Bs, they would receive a direct tax credit or deduction at a value of $1.25, or another amount appropriate to generate sufficient funding to cover direct costs of care and maintenance. In order to receive credits, an individual or advocacy group must be directly caring for or funding the care through a qualified contractor of excess animals and must provide proof of life (subject to periodic BLM inspection and authentication) and possession or control of each animal (in safe and humane conditions subject to periodic inspection), and accounting for the funding provided for direct care and maintenance on an annual or otherwise basis. Offspring generated by pregnancies consummated after the ownership transfer date would not be eligible for tax treatments. The tax deductions and credits should provide sufficient funding for private sector entities to maintain perpetual care until natural death occurs.

This plan is crafted to avoid the unlimited sale and euthanization of excess animals. However, if private sector interest cannot or will not absorb excess animals within the 3 to 5-year transition period, congressionally authorized methods of sale and lethal means of disposal would be immediately enjoined.

The only long-term solution to limit further habitat destruction and maintain sustainable WH&B populations is to ensure that herds are managed within the AML in each individual HMA. Once those levels are reached via a reset, excess animals can be absorbed by the annual adoption demand, provided a reasonable level of gathers and contraception occurs within on-range herds. It is reasonable that the pulse of excess horses created by the reset could easily be subsumed by privatization of housing and care through a tax credit and deduction program. The program would sunset with attrition of the animals among the original cohort of excess WH&Bs, shifting the entire long-term holding program away from taxpayer funding and thus saving at least $1 billion over the next 20 years.

This plan serves only to provide a template of new approaches to WH&B management. The current management infrastructure and culture is a catastrophic failure. Outside special interests have sabotaged the implementation of management set forth in the original congressional acts, providing the mechanism that has led to the massive habitat destruction we are witnessing. A new path, a reset, a new direction must be employed to deal with the challenge. We believe a creative solution is possible and should be explored. Time is of the essence.

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