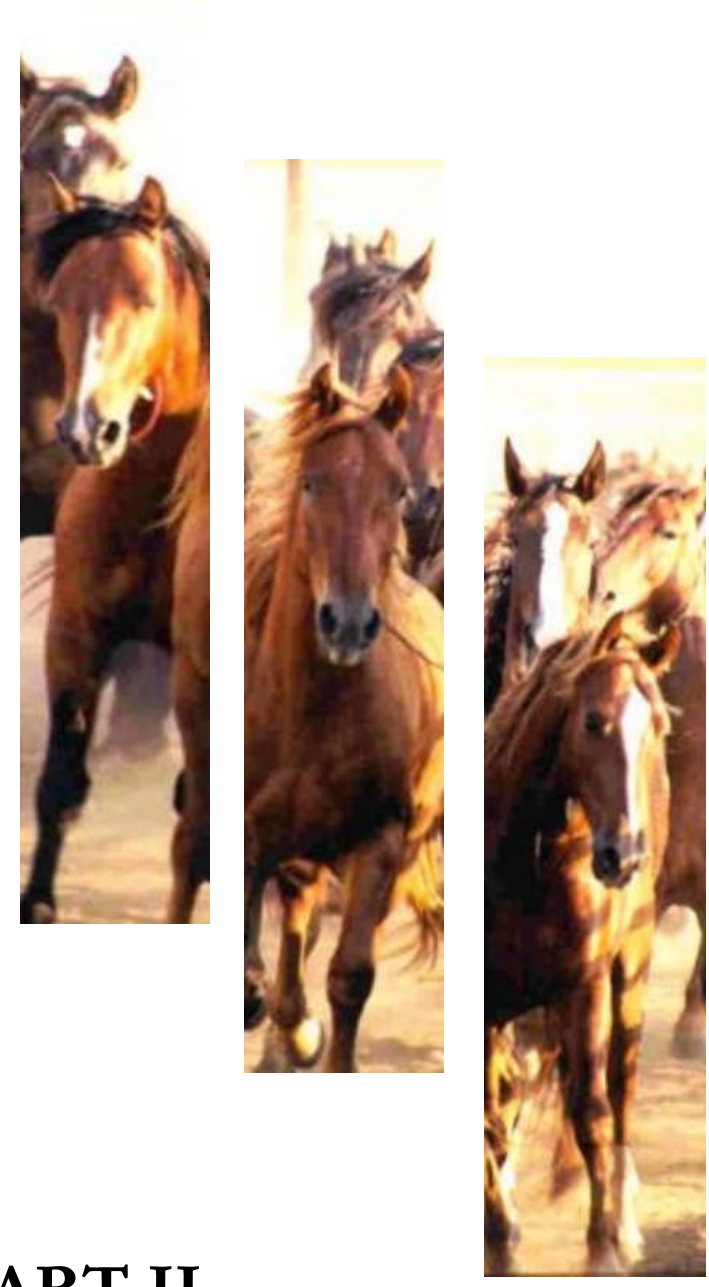
Americas Mustangs & Burros

What's Left,
The High Costs of Miscalculating
And Will They Survive?
By C.R. MacDonald



PART II

The High Cost of Miscalculating

I. Financial

Based on this analysis, approximately 14,000 more wild horses and burros have been removed than were actually necessary to achieve BLMs national population objective, the cause of the massive increase in short and long-term holding costs - yet more removals are scheduled throughout the summer of 2008, most conducted under an "emergency" umbrella.

As of February 2008, BLM reported over 32,000 wild horses and burros are now being warehoused in holding facilities and has recently released yet another bid for additional holding facilities.(16)

BLM has reported in Fiscal Year 2007, $38.8 million dollars was spent on the wild horse and burro program with the cost for holding wild horses and burros in short and long term holding facilities reported at $21.9 million, accounting for more than half of what BLM spent and BLM is now reporting these costs are projected to exceed $26 million dollars or about three-fourths of the wild horse and burro programs budget for Fiscal Year 2008.(17) It is interesting to note budget projections for Fiscal Year 2009 find holding costs declining again to about 21 million, about the same as they were in Fiscal Year 2007.

While it is not the focus of this report to audit the financial and budgetary concerns of BLMs Wild Horse and Burro Program, as this would be significant enough to require a completely separate report, a general overview has been provided for BLMs projected budgets for Fiscal Years 2008 and 2009 to help illustrate the various costs associated with the program overall.

However, even a superficial examination of these budgets pose some initial questions worth mentioning, the first being, why income generated from adoptions of wild horses and burros failed to be included in the Funding credits BLM has to work with on an annual basis.

Based on the reported adoptions numbers, such as in Fiscal Year 2007 where BLM reported 4,772 wild horses and burros were adopted averaging $125.00 each, the program should have been credited with almost an additional $600k dollars. There are also known incidences of adopted animals going for much higher fees than the standard fee of $125.00 as well. However, in the interest of fairness, over the last few years BLM has also offered such bargain basement prices as $25.00 per horse.

Income derived from the For Sale Horses touted as necessary to help defray the costs of the program, now cited as "more than 2,700" since BLM first began selling wild horses and burro in 2005, has also failed to be credited in their budget analysis.

However, it is possible that the fees BLM is accepting for these wild horses and burros is so nominal, it fails to impact their budget in the slightest. Though shrouded in mystery as to what the BLM is actually receiving for these sales, there is at least one well-known offer to ranchers to purchase the now captured wild animals for merely $10.00 each with stories of BLM selling them for as little as $1.00.

Table 13. BLMs Fiscal Year 2008/2009 Wild Horse and Burro Program Budgets

All budget figures provided courtesy of Dean Bolstad, National Wild Horse and Burro Program Lead.

Fiscal Year 2008 Projected Costs & Funding

FY2008 Enacted	$36,201,000
FY2007 Carryover	$223,000
FY2007 Reprogramming	$500,000
Forest Service Income	$1,819,610
NV Emergency Stabilization Funds	$2,043,576
TOTAL FUNDING	**$40,787,186**
Herd Management	-$1,718,026
Adoption/Compliance	-$5,036,575
Gather/Remove BLM & FS	-$3,288,555
Short-Term Holding	-$15,461,649
Long-Term Holding	-$10,862,310
Overhead/Uncontrollable Costs	-$7,846,000
TOTAL COSTS	**-$44,213,115**

DIFFERENCE -$3,425,929

Target Animals Adopted	5,235
Animals Gathered For BLM	5,653
Animals Gathered For FS	196
TOTAL STH & LTH COSTS	**-$26,323,959**
Holding vs. Enacted	72.7%

Fiscal Year 2009 Projected Costs & Funding

Presidents Proposed Budget	$36,960,000
Estimated Forest Service Income	$1,800,000
TOTAL FUNDING	**$38,760,000**
Herd Management	-$1,575,026
Adoption/Compliance	-$6,921,200
Gather/Remove BLM & FS	-$1,511,622
Short-Term Holding	-$10,392,814
Long-Term Holding	-$11,276,253
Overhead/Uncontrollable Costs	-$7,085,065
TOTAL COSTS	**-$38,760,000**

Target Adopted Animals	5,200
Animals Gathered for BLM	3,300
Animals Gathered for FS	183
TOTAL STH & LTH COSTS	**-$21,669,067**
Holding vs. Budget	58.6%

II. APPROPRIATE MANAGEMENT LEVELS (AML)

In addition to the high financial costs of unnecessary wild horse and burro removals, there are additional concerns regarding the established allowable management levels themselves with an apparent and steady downward trend, both in terms of "what" BLM has established in terms of the number of wild horses and burros deemed appropriate as well as "how" they have justified these decisions.

Part I - Examining Established AMLs

National Overview
Nationally, BLM reports there are 318 Herd Areas, the originally designated habitats deemed to be eligible for protection at the passage of the 1971 Wild Free-Roaming Burro Act. Currently, BLM is reporting habitat acreage of these original Herds Areas totaled approximately 53.5 million acres.

Of these original Herd Areas, BLM has determined only 34.3 million acres are suitable for wild horses and burro management, a loss of 19.2 million acres of habitat with more habitat loss pending.

The current national allowable management level (AML) totals 27,210 wild horses and burros and is comprised of 24,304 wild horses and 2,915 wild burros. However, these numbers fail to take into account a number of relevant issues.

There are currently 199 wild horse and burro territories BLM has determined are still suitable for Herd Management Status and as such, have been deemed a Herd Management Area (HMA). Though BLM reports 199 Herd Management Areas are still active, a total of 192 herds actually exist, 165 wild horse herds and 27 wild burro herds.

It is important to distinguish between a Herd Management Area and the actually remaining herds for a number of reasons, these being:

1. Non-functional HMAs are counted in BLMs total HMA statistics even though wild horse or burro herds have been zeroed out or have an established AML of 1, artificially inflating actual HMA and herd status.
2. There is HMAs BLM still counts towards HMA status and AML totals where no populations currently exists.
3. One HMA may contain both wild horse herds and wild burro herds but they are lumped together in statistical reporting.

Because of these reasons, it was deemed necessary to utilize the actual remaining wild horse and burro herds versus using BLMs current system, which allows for a number of variables as described above that prevent accurate accounting of habitat, allowable populations and those herds that actually still remain.

The following table provides both national and state totals, individual herds per state and includes areas BLM reports under their HMA statistics being managed for U.S. Forest Service.

Table 14. 2008 Status of America's Actual Wild Horse & Burro Herds

State	Total # of Herds	Wild Horses	Wild Burros
Arizona	8	2	6
California	20	16	4
Colorado	4	4	-
Idaho	6	6	-
Montana	1	1	-
Nevada	94	80*	14
New Mexico	2	2	-
Oregon	19	18	1
Utah	22	20	2
Wyoming	16	16	-
Totals	192	165	27

*Includes the Montgomery Pass wild horse herds estimated at 55 in FY08 though AML has yet to be established.

Non-Functional Herd Management Areas

A non-functioning Herd Management Area is considered any HMA where;

a) Allowable Management Levels have been established at 0 but are still listed as an HMA.
b) Allowable Management Levels have been established at 1.
c) Allowable Management Levels have been established but are reporting zero populations.

An additional consideration is these AML statistics fail to include areas where AMLs are counting towards national or state totals but population levels have been slashed to the bone after the round ups, such as the Little Humboldt HMA with an AML of 80 but with only 12 wild horses left after round ups were initiated to protect the range from wildfire damage.

There is also the Hot Creek Wild Horse Territory in Nevada, though a U.S. Forest Service Wild Horse Territory (WHT), it is cited in BLMs national Herd Statistics as an HMA. Though the National Program Office is reporting removals were conducted in January 2006, no records can be found of this occurring in their 2006 Final Gather Schedule, though it is possible USFS conducted these removals without BLMs assistance. However, with an established allowable management of level of merely 41, populations dropped from 128 (plus the foals prior to the round ups) to now reporting merely 3 wild horses remain.

Oregon's Sand Springs HMA, with an AML of 200, conducted round ups in 2006 and report only 42 still occurring within the HMA.

Currently, only California and Nevada have HMAs that fit the criteria for non-functioning HMAs. These two states contribute an additional reduction of 369 less wild horses and burros being applied towards national AMLs where no populations actually exist.

California

California currently reports 22 HMAs still remain statewide with established allowable management levels of 1,761 wild horses and 476 wild burros for a total of 2,237 for both species. However, three of California's HMAs are classified as non-functional; the Lee Flat, Palm Canyons and Piper Mountain HMAs and contribute to inflated statewide AMLs by adding 120 more wild horses and burros than BLM actually has.

Todays statistics also fail to show the cumulative impacts over the years, which have decimated both habitat and populations.

Southern California was once home to the largest wild burro population in the country and at the time of passage of the California Desert Conservation Area Plan in 1980, there were 19 recognized Herd Management Areas that could be managed for burros and 14 were officially designated for that purpose within the Conservation Area alone. The combined AMLs totaled 2,747 wild burros and their available habitat was 3.5 million acres.

Today, this same area has only 2 burro herds left, the Chemehuevi and Chocolate-Mule Mountains HMAs, with only 252 wild burros still allowed on less than 300k acres – a loss of over 90% of both habitat and populations.

Though BLM reports California burro herds have a statewide AML of 476, two of its non-functioning HMAs are burro herds with an AML of 97 wild burros being counted towards state totals even though no actual populations exist. California's true wild burro allowable management level is merely 379 throughout the entire state.

Nevada

Nevada is home to the largest remaining wild horse populations in the West and as such, their statistics play a particularly important role in the overall scrutiny of the National Wild Horse & Burro Program as a whole.

BLM reports a total of 22.8 million original Herd Area acres, 19.7 of which are actually under BLM jurisdiction. Of the original Herd Area acres, almost 17.5 million Herd Management Acres has been deemed suitable for wild horse and burro use and granted Herd Management Area status, almost 1.7 million of these acres are actually under BLM jurisdiction - a habitat loss of 2.2 million acres.

Additionally, BLM is applying over 1.1 million acres towards Nevada's Herd Management Area acreage and status that are considered non-functioning HMAs due to a zero AML, an AML of 1 or HMAs where an AML has been established but there are no reported populations actually occurring in the HMAs.

Herd Management Areas & AMLs
BLM reports Nevada has a total of 102 Herd Management Areas with a state allowable management level (AML) of 12,290 wild horses and 808 wild burros totaling 13,098 for both species. Since 2004, BLM has reduced the state AML by 1,458 wild horses and burros with more currently pending.

While these are BLMs reported statistics, actual AMLs are lower due to BLM applying AMLs towards state totals where zero populations are being reported. The actual Nevada AML is 12,119 wild horses and 730 wild burros totaling 12,849, a further decrease of 249 wild horses and burros.

Of these 102 HMAs, though BLM cites only 6 HMAs have been completely zeroed out, direct counts revealed there are actually 8 HMAs with a zero AML status. These counts also fail to reflect such maneuvers as zeroing an area out completely for wild horse use but converting it instead to exclusive wild burro use as was done in the Bullfrog, Gold Field, Gold Mountains, Johnnie, and Stone Wall HMAs so it fails to reflect the now zeroed out wild horse herds.

Additionally, Nevada has 3 HMAs with an established AML of just 1 wild horse and 3 more HMAs, which have established AMLs totaling 249 wild horses and burros but report zero populations occurring in the HMA.

Table 15. Nevada Zeroed Out
Herd Areas/Herd Management Areas

Herd Management Area	HA Acreage	HMA Acreage
Amargosa Valley	8,901	8,901
Ash Meadows	115,492	115,492
Cherry Creek	37,275	37,275
Eldorado Mountains	95,233	16,521
Meadow Valley Mountains	97,845	97,845
Montezuma Peak	77,930	77,930
Muddy Mountains	187,310	78,581
Silver Peak	242,174	242,174
Totals	**862,160**	**674,719**

Table 16. Nevada Herd Areas/Herd Management Areas with AML of 1 Wild Horse

Herd Management Area	HA Acreage	HMA Acreage
Applewhite	30,969	30,969
Blue Nose Peak	84,788	84,788
Rattlesnake	71,433	71,433
Totals	**187,190**	**187,190**

Table 17. Nevada HMAs w/Established AMLs - No Reported Populations

Herd Management Area	Herd Area Acreage	Herd Management Area	AML	Population
Gold Mountain	107,638	107,638	78	0
Palmetto	118,279	118,279	76	0
Horse Butte	49,780	49,780	95	0
Totals	275,697	275,697	249	

As a result of all these factors, currently Nevada has a total of 94 "functioning" herds remaining, 80 wild horse herds and 14 wild burro herds.

Additional AML Reductions

In late 2007, BLMs Tonopah Field Station issued a decision on multiple Herd Management Areas that converted all wild horse use to wild burros instead resulting in a loss of 333 wild horses, though their final round ups are still pending.

In 2004, Nevada's BLM Ely District issued a mass AML decision for twelve HMAs, reducing their current AMLs from 884 to 684, a permanent reduction of 240 wild horses. Four years later, BLM has gone back again and issued a new proposal in November 2007 for the Ely Districts new Resource Management Plan, currently undergoing the Protest Period, which proposes to re-arrange and zero out an additional 16 Herd Management Areas totaling over 1.6 million acres with an additional loss of 446 more wild horses from public lands pending approval.

Genetic Diversity and Viability

A leader in the field of equine population genetics is Dr. Gus Cothran, Director of the Equine Blood Typing Research Laboratory at the University of Kentucky. In addition to blood and hair samples collected from horse breeds around the world, Dr. Cothran has been analyzing blood samples from U.S. wild horses. He has been studying the Pryor Mountain wild horse herd of southern Montana since 1991 as well as other wild horse herds on public lands in the West.

Dr. Cothran suggests that managing wild horses at low population levels leaves them vulnerable to a long range loss of genetic diversity. This is the same sort of problem which plagues endangered species around the world. But, just how small is too small? At what point do wild horse populations suffer the risk of irreparable genetic damage?

Based on his DNA analysis, Dr. Cothran now believes that the minimum wild horse and burro herd size is 150-200 animals. Within a herd this large, about 100 animals will be of breeding age. Of those 100, approximately 50 horses would comprise the genetic effective population size. These are the animals actually contributing their genes to the next generation. Dr. Cothran has stated that 50 is a minimum number. A higher number would decrease the chances for inbreeding. (A number of variables such as an unbalanced sex ratio in favor of males would cause this minimum number to be revised upward. Unbalanced sex ratios with many more males than females occur on at least some of the wild horse and burro herd areas.)

Dr. Cothran has worked in collaboration with Dr. Francis Singer, a research ecologist with the Biological Resources Division of USGS in Fort Collins, Colorado.

In a letter dated July 7, 1999 from BLM Field Manager Sandra Brooks to Custer National Forest Ranger, Rand Herzberg, regarding the need to expand the Pryor Wild Horse Herd, Ms. Brooks stated that. "preliminary evidence suggests that the herd {Pryor Mountain Wild Horse Herd} has been managed at dangerously minimum levels over the past 25 years and an increase in established appropriate management levels (AML's) will need to be considered in order to preserve the genetic viability of the herd."

The remaining herds represent highly fragmented populations that in many cases cannot interchange genetically. Fences erected to rotate cattle and sheep from one "pasture" to another keeps herds away from healthy inter-breeding. Combine this with BLM's policy of removing younger animals, leaving predominately horses and burros older than 5 years of age and in many cases leaving only those older than 9 years of age, and it becomes clear that the BLM is setting our "national heritage species" (PL 92-195) up for inbreeding, winter kill, failure to reproduce, low vitality, population fragmentation and eventual extinction in the wild.(18)

Since Dr. Cothran's initial work, a number of "genetically viable" numbers have come forth, including revisions from Dr. Cothran himself.

However, during the gather proposal for the last round up in the fall of 2006 of the now zeroed out Silver Peak wild horses, one of the reasons cited for issuing the zero wild horse AML decision was studies had suggested inbreeding characteristics may be occurring within the herds. Their population was estimated at 71 when BLM issued this decision, though they removed a total of 143 during their final round up.(19)

Genetic Viability of the Herds

Of the 199 Herd Management Areas, there are a total of 192 remaining herds, 165 wild horse herds and 27 wild burro herds.

Genetically Vulnerable Herds.- AMLs at 60 or Less

Herds with a maximum Allowable Management Level of 60 or less are considered extremely vulnerable to population "crashes" due to severe winters or drought.

For example, in the mid-80's, Wyoming's Green Mountain Herd Management Area lost 60-80 wild horses during a severe winter where livestock fencing had trapped them and prevented them from migrating to their normal winter range.(20)

Of the remaining 192 herds, BLM has issued a maximum population AML of 60 or less wild horses or burros for 69 herds, 35.9% of the total populations. Wild herd populations are also reduced considerably lower than their "high" AMLs after round ups, meaning that even though a maximum AML has been issued for 60 animals, actual populations may only be 30, 20 or even less.

Extremely Vulnerable Genetic Populations

Table 18. Wild Horse & Burro Herd Populations
Allowable Management Levels (AML) of 60 or Less

Herd Totals: 69 35.9% of Total Populations

California: 10 out of 20 Herds – 50%
Bitner-25, Carter Reservoir-35, Chicago Valley-12, Massacre Lakes-20, New Ravendale-25, Nut Mountain-55, Red Rock Lakes-25, Wall Canyon-25, Waucoba Hunter Mt-11, Round Mt/Devils Garden-10

Idaho: 3 out of 6 Herds* - 50%.
Black Mt-60, Four Mile-60, Saylor Creek-50
*Though Sand Basin has an AML of 64, it has not been included in this count.

Nevada: 36 out of 94 Herds – 38.2%.
Blue Wing Mt-36, Cherry Creek-0, Clover Creek-14, Clover Mt-16, Deer Lodge Canyon-50, Diamond Hills North-37, Diamond Hills South-22, Dogskins Mt-15, Fish Lake Valley-54, Goldfield-37, Granite Peak-18, Highland Peak-33, Hot Creek-41, Jakes Wash-21, Lahontan-10, Lava Beds Burros-16, Little Fish Lake-39, Little Mountain-15, McGee Mountain-41, Miller Flat-15, Moriah-29, Paymaster-38, Red Rock-27 wild horses, 49 burros, Sand Springs West-49, Saulsbury-40, Seven Mile-50, Seven Troughs-46 burros, South Stillwater-16, StoneWall-8, Tobin Range-42, Warm Springs Canyon-24 burros, Wheeler Pass-35 burros, Whistler Mt-24, Hickson Summit-45 burros, North Monitor-8.

New Mexico: 2 out of 2 Herds - 100%
Bordo Atravesado-60, Carracas Mesa-23

Oregon: 6 out of 19 Herds – 31.5%
Hog Creek-50, Ligget Table-25, Pokegama-50, Riddle Mt.-56, Warm Springs-25 burros, Murders Creek-35

Utah: 12 out of 22 – 54.5%.
Bible Springs-60, Chloride Canyon-30, Choke Cherry-30, Four Mile-60, Frisco-60, Kingtop-40, Mt Elinor-25, Muddy Creek-50, North Hills-36, Robbers Roost-25, Sinbad-50, Tilly Creek-50.

Genetically Viable Herds.- AMLs at 150 or More

Herds that have an established AML of 150 or more are considered genetically viable with less danger of inbreeding or population crashes. Of the 192 wild horse and burro herds, 67 are still considered genetically viable or 34.5% of the total populations, which is comprised of 62 wild horse herds and 5 wild burros herds.

Genetically Stable Populations

Table 19. Wild Horse & Burro Herd Populations
Allowable Management Levels (AML) 150 or More

Herd Totals: 67 34.5% of Total Populations

Arizona: 6 out of 8 Herds – 75%
Alamo burros-160, Black Mountain burros –478, Cibola-Trigo burros-285, Cibola-Trigo horses-150, Havasu burros-166, Lake Pleasant burros-208.

California: 3 out of 20 Herds – 15%
Centennial-168, Fox Hog-220, Twin Peaks-758

Colorado: 3 out of 4 Herds – 75%
Little Books Cliff-150, Piceance-East Douglas Creek-235, Sand Wash Basin-362

Idaho: 1 out of 6 Herds – 16%
Challis-253

Nevada: 33 out of 94 Herds – 35%
Antelope-324, Antelope Valley-259, Augusta Mountains-308, Bald Mountain-215, Buck-Bald-423, Buffalo Hills-314, Calico Mountains-333, Callaghan-237, Clan Alpine-979, Desatoya-180, Diamond-151, Fish Creek-180, Fox-Lake Range-204, Granite Range-258, Jackson Mountains-217, Little Owyhee-298, Maverick-Medicine-276, Monte-Cristo-236, Nevada Wild Horse Range-500, New Pass-Ravenswood-566, North Stillwater-205, Owyhee-231, Pilot Mountain-415, Pine Nut Mountain-179, Roberts Mountain-150, Rock Creek-250, Sand Springs-East-257, Seaman-159, Seven Troughs-156, Stone Cabin-364, Warm Springs Canyon-175, Wassuk-165, Wilson Creek-160.

Oregon: 10 out of 19 Herds – 52.6%
Beatys Butte-250, Cold Springs-150, Coyote Lake-390, Jackies Butte-150, Paisley Desert-150, Sand Springs-200, Sheepshead/Heath Creek-302, South Steens-304, Three Fingers-150, Warm Springs-202.

Utah: 4 out of 22 Herds – 18%
Cedar Mountain-390, Hill Creek-195, Onaqui Mountain-210, Sulpher-250

Wyoming: 7 out of 16 Herds – 43.7%
Adobe Town-800, Divided Basin-600, Fifteen Mile-160, Green Mountain-300, Muskrat Basin-250, Salt Wells Creek-365, White Mountain-300.

Part II – Setting Appropriate Management Levels For Wild Horses & Burros

Setting the Appropriate Management Levels (AMLs) for wild horses and burros has revealed some rather questionable standards being applied in many instances, though every BLM office and proposal seems to contain variables.

Here are some issues that could use further examination with some examples provided in Appendix V to help illustrate these points.

Carrying Capacity

Carrying capacity and stocking rate is often absent in wild horse/burro evaluations and decisions, which use to be the standard for determining appropriate use levels on public lands. A sincere evaluation should include carrying capacity, stocking rates, forage production per acre, acres it takes to supply one animal unit month (AUM) for the area, a range of resource availability based on fluctuating environmental conditions such a dry, normal and good years, pounds of forage required per horse or burro, total available water sources, and water flow data.

What is often substituted for carrying capacity is Use Pattern Maps that provide little verifiable data about what the range can support or the actual utilization occurring. They will take a few "key" measurements and then multiply that use level over thousands of acres. This can also fail to distinguish other rangeland users impacts by attributing all utilization levels to wild horses and burros and offers the BLM opportunities to insert random numbers in formulas that may have no actual bearing on carrying capacity, available resources and/or who exactly is using those resources.

Furthermore, by using this method BLM is able to determine AMLs by going in to the proposal with a preset desired use level for wild horses and burros that may or may not have any bearing on the totality of resource availability and/or consumption potential for the proposal area.

Predetermined Formulas

Many examinations of wild horse and burro resource allocations reveal a consistent pattern of wild horses and burros being allocated 10% or less of the available resources (usually much less). This suggests that BLM managers are determining use levels based on administrative convenience and/or predetermined formulas that may or may not have any bearing on actual carrying capacity or utilization levels from the wild horses and burro themselves. It can't be just a coincidence that forage allocations for wild horse and burros so often fall within the same percentages of allowable use.

Further evidence that this is what has been done is the fact that almost little to no funding is issued for monitoring and hasn't been issued for years with the majority of funding being funneled in round ups or holding costs. With little funding provided to actually monitor rangeland resources that support those AMLs, often times the basis for determining excess populations, round ups and the now escalating holding costs have been based, at least in some known instances, through questionable methods and means.

No Alternatives

When BLM issues a proposal to establish AMLs, they usually fail to examine wild horses/burros in context with other rangeland users in a meaningful way by failing to present management alternatives to all affected rangeland users for the area, specifically livestock AUM authorizations – BLM just states what the AML is going to be and if the public has a problem with that, they can appeal it through Interior Board of Land Appeals (IBLA) or take them to court.

BLM has so far refused to examine forage allocations to wild horses and burros in grazing permits though they will include wildlife allocations, depending on the livestock proposal. When they do finally examine wild horses and burros for an allowable management level (AML) determination, there have been known instances where they censor other multiple-use applications from their evaluations and just drop a number in stating "this is what it is going to be" not "here are the resources available and we could manage the area this way" or "this way" with alternatives in relationship to the thriving ecological balance. IBLA even has a separate area to file appeals regarding wild horses/burros, wildlife and livestock decisions.

Often, BLM also reaffirms old AMLs as "valid", sometimes over 20 years old, despite having no monitoring, no studies, or reports to justify them AS being valid. This allows them to circumvent reporting or analyzing significant changes that may have transpired since initiating the original AMLs such as fencing, roadways, increased visitor use, changes to water availability, increased or decreased wildlife populations and/or objectives, threatened, endangered, special status or priority species considerations, cumulative impacts to wild horses and burros and their available habitat both locally and nationally, changes in pastures, grazing rotations, livestock authorizations, seasons of use, or applying the latest available science and research to the proposals and thus making the critical adjustments necessary to truly implement a viable thriving ecological balance in context with all rangeland users and multiple use applications.

This also means that any proposal that has wild horses and burros in the area or establishes AMLs often fails to provide the "hard look" required by NEPA through the Environmental Assessment process. Even when BLM calls them EAs, there are no real alternatives in managing wild horses/burros in relationship to other rangeland users, everything is kept separate from each other. Those that do provide "alternatives" still have pre-determined AML numbers that often don't consider or provide the option of re-arranging other rangeland user allocations in context of management alternatives and AMLs.

The only exception to this general rule is the Nevada process called the Multiple Use Decision (MUD) that examines livestock and wild horses/burros in the same document. Yet again, BLM usually just issues a number and states what the AML is going to be, rarely providing any supporting documentation that this number is backed up by verifiable rangeland conditions, forage production, water availability, etc. in relation to wild horses/burros. Even when they do present this information, rarely is sincere alternative management plans offered in context of wild horse and burros allocations. The little variations offered are for the livestock portions of the MUDs, not population numbers for wild horses/burros or even wildlife.

Multiple Use Decisions are often cloaked in proposals called Rangeland Health Assessments, leaving the public to believe that no decisions are being made regarding the area when in fact, they are. The time limit to address these documents, often hundreds of pages long, has ranged from 15-30 days including mail time, with absolutely no hope of acquiring additional information on the proposal area such as the Resource Management Plans these proposals are authorized from, prior assessments, or even more extensive information on the monitoring data these assessments will often present in only the most superficial fashion. Additionally, much of the little data that is offered is extremely dated.

It also appears that once BLM gets these AMLs rammed through, they are set for life because AMLs are rarely, if ever examined again, no matter how many years go by, unless BLM wants to reduce them or zero the HMA out. Even IBLA has had a change of policy regarding examining wild horse and burro proposals in context to the thriving ecological balance – they have legally affirmed that they will not examine or revisit an AML once it has been established.

Multiple AML Decisions

Another issue and concern is "wholesale" AML determinations where multiple Herd Management Areas and/or Wild Horse Territories (WHT) are all combined in one document that can span hundreds of thousands of acres. The ability to meaningfully address and evaluate these proposals becomes lost through just the sheer volume of information and/or span of the proposals.

BLM will create Herd Management Areas out of the original Herd Areas, issue proposals for management actions within the HMAs on an individual basis (such as livestock renewals, rangeland health evaluations, range improvement projects, etc.) and then re-combine multiple HMAs/WHT's under the umbrella of a "Complex" to examine and determine AMLs, again all within a very limited time frame.

These Complex decisions are cited as appropriate due to known interchanges within the HMAs and the necessity to manage the areas as one functioning meta-population. Then why were they created as "separate units" to begin with?

The public has no hope of accessing pertinent documents to these wholesale AML proposals as all information must be requested individually per HMA, WHT and livestock allotment. The time it takes for BLM to provide requested documents is averaging about 60 days and the financial cost would be considerable ($100s-$1,000s of dollars) if the public requested multiple documents in this kind of volume. Even IF this information was received before the public comment period closed, how feasible is it that there will be time to review these documents in any sort of in depth analysis?

Meanwhile, BLM can take as long as they deem necessary to write the proposals, re-write the proposals, and issue decisions. It's only the public that has to scramble to meet the excruciatingly short deadlines.

Outside the Scope

Gather Proposals
Protesting AMLs during gather EAs is deemed "outside the scope" of the proposal.

Livestock Renewals
Trying to address the issue of inequitable forage allocations in livestock grazing renewals in areas where wild horses/burros occur is deemed by BLM as "outside the scope" of the assessment, even if the AMLs established for wild horses/burros due to these inequitable resource allocations are causing the allowable population levels to be considered "at risk" in terms of genetic viability.

Wildlife
Wildlife proposals are not handled by BLM, they are only "partners" that have no say in management directions, therefore neither does the public, and so this too is "outside the scope" in relation to the thriving ecological balance on public lands.

Resource Management Plans
Many of the Resource Management Plans issue general plans for wild horses and burros, and while BLM often fails to examine them in relation to livestock or wildlife, they still establishes a "cap" on population levels to be managed throughout the life of the plan.

Resource Management Plans are often written by stating that site-specific decisions will be made on a case-by-case basis to allow BLM managers flexibility in management options for the area. Yet when the time comes to examine the "case-by-case" basis, BLM only allows the public to provide input about wild horses/burros in wild horse/burro documents, not livestock or wildlife proposals, even though the entire crux of the wild horse and burro program is based on multiple-use and the thriving ecological balance. Any attempt to address wild horses and burros outside the narrow avenues BLM herds the public down is always deemed "outside the scope of the proposal".

Furthermore, despite the 2-4 year process of establishing a Resource Management Plan, the actual time available to the public to research and comment is extremely limited.

The first opportunity is the scoping period, where it is entirely up to the public to think of issues they would like identified in the plan without context or information on any of the proposals. The second opportunity and the only real one available is the Draft portion of the Plan. It is here that BLM will outline general directions of the Proposed Action and Alternatives. This 90-day period is the only shot the public has every 10-20 years.

If the public fails to provide input at this stage, they are barred from any further participation or standing, no matter how involved they may have been after the 90-day public comment period. The public must bring up a specific issue during one of these two times, if they fail to bring up an issue during one of these two periods, they are barred from addressing any new information, issues, concerns or considerations, no matter what may have transpired since the Plan was first released.

Yet in the Final Proposal, BLM has the leeway to introduce completely new proposals, alternatives, directions and management actions never before proposed and the public has absolutely no standing to comment, protest, or provide input about because these "new" introductions because they were never brought before the public during the Draft period.

If that isn't enough, the Final Decision may also not be appealed or commented on, which may also go through radical changes during the Protest Period of the Final Plan before BLM issues the Final Decision. Only when BLM first initiates action does the public again have the right to participate in the management of our Nation's resources and this could be years removed from when the Plans were first initiated during the scoping period.

So if the public has little to no standing in RMPs with opportunities usually only provided every 10-20 years, they have no standing in livestock grazing renewals, wildlife proposals, or gather EAs and AML documents are limited to issuing preset population objectives without alternatives in relationship to other rangeland users, where exactly does the public have any opportunity to address the management of wild horses and burros in context of the thriving ecological balance that allows for a full range of evaluations and alternatives?

Financial Information
Attempting to get BLM to list the costs of the proposals or alternatives is also deemed "outside the scope". Not having to publicly disclose the costs of their proposals or alternatives allows them to circumvent fiscal accountability through viable alternatives. This also allows them to circumvent what groups or organizations may be contributing to the proposal that may be causing undue preference or conflicts of interest in resource allocations on public lands.

<u>Insufficient Checks & Balances</u>
The BLM has the power and authority to zero out entire historical populations of wild horses and burros. However, after there is no longer any population left, BLM still maintains their protected habitat is reserved throughout perpetuity, despite laws and mandates requiring them to manage renewable resources in such a manner as to preserve them for future generations.

While legally having no authority to completely eliminate HMAs through environmental assessments because a Resource Management Plans is the only lawful and appropriate document this decision can be made, BLM and USFS are able to circumvent this law by establishing an AML of 1 and removing the populations based on this new AML.

A single Field Manager has the authority to propose complete wild horse and burro elimination and only answers to the State Director for that decision. These two individuals have the sole discretionary power to reverse a Congressionally dedicated public land use that can span hundreds of thousands of acres with little oversight or challenge.

The only exception is a 30-day window to appeal the decision before the Interior Board of Land Appeals. A rule change in the 1990's allowed decisions to be placed in Full Force and Effect and placed the "burden of proof" upon the appellant (aka the public), proof that BLM holds the keys too that many in the general public cannot access in a timely manner, cannot afford the legal services

necessary to challenge a bureaucratic institution of this magnitude, nor often times even afford to mail multiple copies to all interested parties cited on the back of the proposal just to file an appeal.

In order to appeal a decision with any hope of success, a general citizen must have in depth legal skills, vast amounts of documentation and data already available before the decision is issued, the financial means to proceed with the appeal without causing economic hardship and more information and data than BLM has on the proposal area. IBLA has already affirmed that all things being equal, the BLM or other agencies within the Department of the Interior will take precedence over the general public unless the evidence presented is overwhelming.

In other words, maybe one or two individuals in the general public can meet this overwhelming criteria or another state or federal agency and they are the only other ones that can attempt to demand accountability of the Field Managers proposals and decisions.

Since BLM is the lead agency mandated to preserve and manage wild horses and burros and it is common knowledge that livestock interests, big game departments and all other federal agencies have a vested interest in removing wild horses and burros to reduce resource competition, the ability to protect and preserve free-roaming populations and their habitat by the general public has been almost obliterated.

A constant stream of changes in laws, policies, mandates, political and financial pressures, and flat out abuse of power from those vested as our public stewards have left no meaningful place for the general public to oppose these decisions and no system in place to provide checks and balances, accountability, reviews of the proposals or any second opinion that can attest to the soundness of decisions issued by a handful of individuals, which have permanently and irrevocably effected the irreplaceable resources of America's historic herds.

The Thriving Ecological Balance

Livestock

Within the United States, a total of 96.7 million head of cattle were reported by the US Department of Agriculture, slightly below the 97.0 million on January 2007 as of January 1st, 2008.(21)

Livestock management is the dominant use on BLM managed public lands and the primary cause of much of what effects and impacts free-roaming herds and their ability to survive.

In September 2005, the Government Accountability Office (GAO) released a report titled, "Livestock Grazing Federal Expenditures and Receipts Vary, Depending on the Agency and the Purpose of the Fee" in order to assess grazing fees and impacts on all federally managed public lands.

Here are some of the issues identified in the GAO's report about livestock grazing on public lands.(22)

"The federal government manages more than 680 million acres of land in the United States, including lands in national forests, grasslands, parks, refuges, reservoirs, and military bases and installations. Of the total federal lands, BLM and the Forest Service manage almost 450 million acres for multiple uses, including timber harvest, recreation, grazing, minerals, water supply and quality, and wildlife habitat. BLM's 12 state offices manage more than 260 million acres in 12 western states, including 82 million acres in Alaska, while the Forest Service's 123 administrative offices manage more than 190 million acres across the nation."

"…10 federal agencies manage more than 22.6 million AUMs (Animal Unit Months) on about 235 million acres of federal lands for grazing and land management in fiscal year 2004. Of this total, the Department of the Interior's Bureau of Land Management (BLM) and the U.S. Department of Agriculture's Forest Service managed more than 98 percent of the lands used for grazing."

"In fiscal year 2004, BLM and the Forest Service approved a total of almost 21.9 million AUMs for grazing on more than 230.6 million acres—BLM approved almost 12.7 million AUMs on more than 137.7 million acres, and the Forest Service approved almost 9.2 million AUMs on more than 92.9 million acres. Ranchers were billed for and used fewer AUMs—a total of almost 13.7 million AUMs—primarily because of the continuing drought in the western and southwestern states, according to agency officials. While BLM maintains a list of historical AUMs—or grazing privileges that have been reduced from historical amounts and are not available to be used—these numbers do not affect the totals."

"The number of livestock operations with BLM and Forest Service grazing permits and leases for cattle, sheep, and other livestock totaled more than 23,000."

Table 20. Number of BLM Permits by Size, Fiscal Year 2004, Table 12

Table 12: Number of BLM Permits by Size, Fiscal Year 2004

Size of permit or lease, AUMs[a]	Number of permits and leases	Total approved AUMs
2 to 10	1,266	8,613
11 to 100	6,073	267,368
101 to 500	5,551	1,367,336
501 to 1,000	1,910	1,354,380
1,001 to 5,000	2,556	5,374,337
5,001 to 10,000	285	1,929,577
Over 10,000	143	2,364,322
Total	**17,784**	**12,665,933**

Source: BLM.

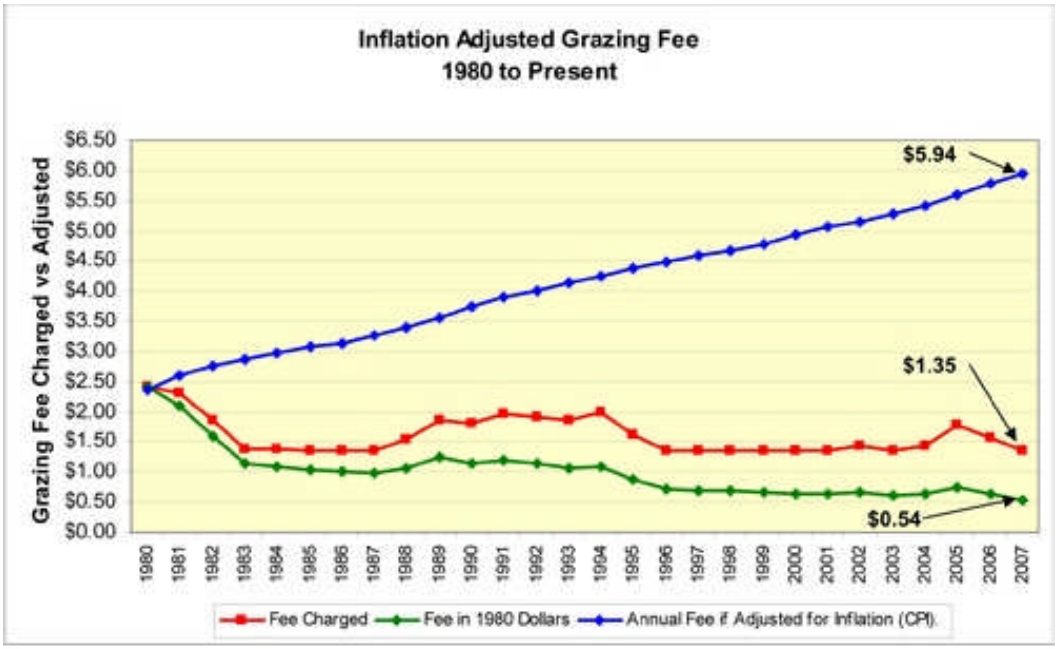
[a]We start with 2 AUMs because we recreated a table from a previous GAO report. In that report, officials were concerned about the accuracy of data for permits with 2 AUMs or less and considered all permits and leases with more than 2 AUMs.

"In fiscal year 2004, federal agencies spent a total of at least $144 million. The 10 federal agencies spent at least $135.9 million, with the Forest Service and BLM accounting for the majority. Other federal agencies have grazing related activities, such as pest control, and spent at least $8.4 million in fiscal year 2004."

"The 10 federal agencies' grazing fees generated about $21 million in fiscal year 2004—less than one-sixth of the expenditures to manage grazing. Of that amount, the agencies distributed about $5.7 million to states and counties in which grazing occurred, returned about $3.8 million to the Treasury, and deposited at least $11.7 million in separate Treasury accounts to help pay for agency programs, among other things. The amounts each agency distributed varied, depending on the agencies' differing authorities."

"The formula used to calculate the BLM and Forest Service grazing fee incorporates ranchers' ability to pay; therefore the current purpose of the fee is not primarily to recover the agencies' expenditures or to capture the fair market value of forage. As a result, BLM's and the Forest Service's grazing receipts fell short of their expenditures on grazing in fiscal year 2004 by almost $115 million. The BLM and Forest Service fee also decreased by 40 percent from 1980 to 2004, while grazing fees charged by private ranchers increased by 78 percent for the same period. If the purpose of the fee were to recover expenditures, BLM and the Forest Service would have had to charge $7.64 and $12.26 per AUM, respectively; alternately, if the purpose were to gain a fair market value, the agencies' fees would vary depending on the market. Differences in resources and legal requirements can cause fees to vary; however, the approaches used by other agencies could close the gap in expenditures and receipts or more closely align BLM and Forest Service fees with market prices. The purpose of the grazing fee is, ultimately, for the Congress to determine."

Table 21. Inflation Adjusted Grazing Fee: 1980-2004



Source: U.S. Bureau of Labor Statistics for Inflation values, Grazing fees from Government Accountability Office Report GAO-05-869, September 2005

"The fee decreased from $2.36 per AUM (animal unit month) in 1980 to the current rate of $1.35, or over 40% while grazing fees charged by private ranchers increased by 78 percent for the same period. To recover costs of administering the federal grazing program, BLM and the Forest Service would have had to charge $7.64 and $12.26 per AUM."

In February 2008, BLM released the 2008 Grazing Fee Schedules – still holding steady at $1.35 per AUM on public lands and despite other inflationary figures raging all around the American public, the livestock industry continues to be completely insulated from these impacts increasingly to the publics detriment.

Executive Director for Western Watersheds, Jon Marvel stated, "Adjusted for inflation since 1980, the new cost to graze a cow and her calf is worth about $0.54 in constant 1980 dollars. It costs more than that to feed a hamster, and it's not fouling streams, ruining wildlife habitat, or accelerating erosion as livestock do. This is a huge hand out to public land ranchers."

According to the *San Jose Mercury News*, which ran an in-depth piece in 1999 on livestock grazing on BLM lands, "The top 10 percent of grazing-permit holders control a striking 65 percent of all livestock on Bureau property." The largest livestock operator on BLM lands is John Simplot, who is listed on the Forbes 400 list and supplies half the French fries to McDonald's restaurants in this country. Other permit holders include the Hilton Family Trust, which owns the Hilton hotel chain, brewery giant Anheuser-Busch, Inc. and the Agri Beef Company—hence the term "corporate cowboys." The majority of taxpayer subsidies go directly into the pockets of large corporations and millionaires, not small family ranchers.(23)

In 2002, the Center for Biological Diversity issued an economic analysis entitled, "Assessing the Full Cost of the Federal Grazing Program". The report estimated that the true cost to taxpayers and the environment from public lands ranching was closer to $500 million annually. (24)

Other notes of interest from the CBD's report included:

"In the early 1990s, the Clinton administration moved to reform the management of public rangelands through a wide-ranging revision of the fee formula as well as BLM administrative regulations, known as ***Rangeland Reform '94*** (USDI and USDA 1994). A new base rate for the years 1990-1992 of $3.96/AUM was proposed with annual adjustments based solely on changes in a Forage Value Index and a cap of 25 percent change per year. This reform was predicted to greatly increase cost recovery for the U.S. Treasury. Revenues from the increase were projected to be $76 million over five years, beginning with an increase of $6 million in 1994, increasing to $35 million in 1997. By comparison, actual receipts for 1992 were about $10.7 million. Ultimately, the fee reform was never adopted, however."

"Recently, federal auditors criticized the BLM and Forest Service along with many other federal agencies for the lack adequate financial accounting that would permit an audit to be done. The USDA was described as the "worst managed" agency. The Forest Service was unable to figure out how much money was available and overspent by $274 million in 2001 (Brinkley 2002)."

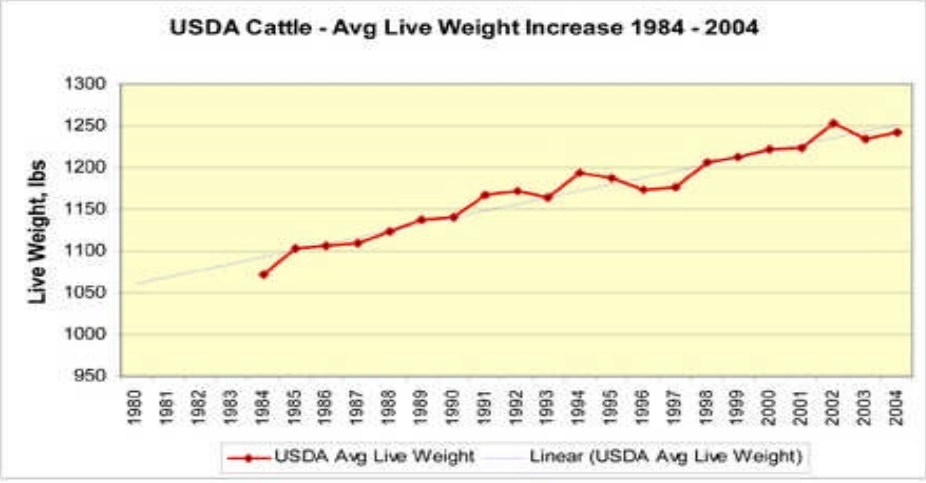
It was also estimated that BLM spent "$34 million on soil, water, and air and much of this budget is necessitated by or benefits ranching while citing livestock are the principal cause of soil erosion and stream degradation" (Jones 2000, Belsky *et al.* 1999) And an "additional $22.5 million was spent on protecting riparian areas where livestock were cited as the most pervasive cause of the riparian damage, as high as up to 80 percent of westerns streams." (Belsky *et al.* 1999).

Despite all this, it is estimated that as of 2005, only 2% of the nation's beef is produced from cattle on public lands.(25) and while BLM maintains the financial costs of the Wild Horse and Burro Program have become "unmanageable", they share no similar concerns for the costs and losses resulting from livestock grazing or the considerable resource damage and financial shortfalls that have been repeatedly documented for decades.

An additional consideration is based on figures from the National Agricultural Statistics Service, and that is the average weight of cows increased from 1050 pounds in 1984 to 1242 pounds in 2004, or an increase of 23%, while the forage consumption of their calves is not counted. If the current weight and forage consumption of cows and their calves were counted, the actual forage consumed is over 40% greater than the agencies charge for, further devaluing the fee recovered. These "super-sized" cows are eating more forage than their smaller predecessors, raising the profits for the livestock industry and reducing the amount of vegetation available for wildlife, wild horses and wild burros. (26)

Table 22. USDA Cattle – Average Live Weight Increase 1984-2004

Source: U.S. Bureau of Labor Statistics for Inflation values, Grazing fees from Government Accountability Office Report GAO-05-869, September 2005



Source: National Agricultural Statistics Service http://www.nass.usda.gov/

According to the 2002 Center for Biological Diversity's federal grazing program report, one final consideration is the impacts of livestock to the community at large as cattle-related accidents run to the thousands per year. These costs are paid by private individuals, insurance companies, and government agencies. Hundreds of vehicles are damaged or destroyed, dozens of people are injured,

and every year, people are killed in the western U.S. as a result of automotive collisions with livestock, some of which come from public lands. Accidents are also caused by wildlife. However, large game animals tend to be less common, smaller in size and faster moving than cattle, and thus the relative impact of cattle on vehicle accidents is likely to be greater than that of wild game.

There is no complete study of this phenomenon, but the few available reports suggest the likely extent of the costs:

The Arizona Department of Transportation estimates that in 2000 alone 1,671 accidents involved an animal, resulting in two deaths and 280 injured. There is no estimate of which portion is due to wild animals and which to livestock (ADOT 2000).

In 1997, the Portland *Oregonian* reviewed state accident records in Oregon, Idaho, Montana, Wyoming and Utah and found that more than 10,000 motorists had collided with livestock during the previous ten years. These accidents resulted in at least 35 deaths.

Current Statistics

As of June 2008, BLM administers 258 million acres of public lands, manages livestock grazing on about 160 million acres and administers nearly 18,000 permits and leases on more than 21,000 allotments.

Authorized (as distinguished from actual) grazing use on public lands has declined from about 22 million AUMs in 1941 to 12.6 million AUMs authorized in Fiscal Year 2007. In most years, the actual use of forage is less than the potential amount available for use because forage amounts and demands depend on several factors, such as drought, wildfire, and market conditions, as noted earlier regarding annual public land grazing levels.

In Fiscal Year 2007, the number of AUMs actually used on BLM-managed land was 6.8 million, as compared to the 12.6 million AUMs that were potentially available for use. This level of grazing represented a decline from Fiscal Year 2006, when actual usage was 7.8 million AUMs. (27)

While livestock grazing is authorized through BLM on approximately 160 million acres, only 34.5 million acres has been deemed suitable for wild horse and burro use and has retained their "protected habitat" status. This acreage has also not been adjusted to subtract the acreage of HMA's that have been zeroed out containing no current populations but are still being applied towards BLMs HMA statistics.

In Fiscal Year 2007, BLM has continued to authorize forage allocations of over 11.1 million animal unit months (AUMs) for livestock grazing within the states wild horses and burros are managed (28) in while wild horses and burros have only been allocated 309k AUMs, less than 3% of the available forage resources. (29)

Yet, even despite significantly less habitat available to wild horses and burros, livestock still dominate resource allocations, so much so that the majority of the "approved" populations (AML) BLM has authorized within their protected habitat has put most of the Nations remaining herds at serious risk of inbreeding and non self-sustaining populations.

These non-self sustaining "allowable populations levels" are not because of the productive capacity of their habitat but merely because BLM will not authorize necessary and critical habitat requirements to wild horses or burros, preferring instead to issue non-comparable and grossly unequal resources allocations.

While BLM quotes the mandate of preserving self sustaining populations with the productive capacity of their environment, the forage allocations given to livestock indicate that the productive capacity is high, certainly high enough to issue AMLs that support self sustaining populations and genetically viable numbers, so it becomes clear that BLM just won't allow any more forage to be utilized by wild horses or burros, even in their own "protected habitat", regardless of the threat to their long term preservation and survival.

In regards to wild burro populations, the BLM has "managed" them from their estimated 1974 population of 14,000 to 3,000 or less, almost 20 million acres of reserved critical habitat has been removed from wild horse and burro use (30), six states have completely eliminated all wild horses and burros (31), and BLM has removed approximately 75,000 wild horses and burros from public lands since October 2001, even while an estimated 70% of the remaining herds are being managed at non self-sustaining and genetically unviable populations. (32)

Wildlife

There is a wide range of approaches in how wildlife is handled in context of resource allocations. BLM has previously asserted they do not have to provide information about wildlife species in their proposals in terms of utilization levels, population numbers or objectives, plans to assure resource allocations to other significant rangeland users, addressing damage to habitat caused by big game species, or initiate management actions to reduce or remedy conflicts with wildlife populations.

Yet the "needs of wildlife", which often translate into big game hunting species, are usually cited as a significant reason for establishing AMLs and/or removing equines from areas to protect the habitat for these species while simultaneously stating that providing information on these species and their impacts are "outside the scope" of the proposals or BLMs jurisdiction.

Economic Impact of Big Game Species

Several studies have shown that the economic value of game animals is many times higher than the value of livestock (Mathews *et al.* 2002). Dispersed recreation on the Central Winter Ecosystem Management Area of the Kaibab National Forest was found to bring in $6.4 million, while hunting brought $1.3 million to the local and regional economies of northern Arizona. In contrast livestock grazing and fuelwood brought only $45,000, about 170 times less (Souder 1997). The increase in revenues to rural communities from hunting that results from grazing reductions can be as much as six times the lost income to ranchers (Donahue 1999). (33)

In a 1996 study and report titled, "The Economic Importance of Hunting-Economic Data on Hunting in the U.S. and California", a wide range of figures is supplied as to the importance and significant contributions made directly and indirectly through hunting and related expenditures.

Some of the figures reported were:

- It creates more than 700,000 jobs nationwide. New studies now show that annual spending by America's 14 million hunters amounts to $22.1 billion. By comparison, and if hypothetically ranked as a "corporation," that revenue figure would put hunting in thirty-fifth place on the Fortune 500 list of America's largest businesses, right between J.C. Penney and United Parcel Service.

- Created a nationwide economic impact of about $61 billion and created household income (salaries and wages) totaling $416.1 billion, which is roughly equivalent to 25 percent of America's entire military payroll.

- Added $1.4 billion to state tax revenues, or nearly 1 percent of all annual state tax revenues combined.

- Contributed $1.7 billion in federal income taxes, which equates to almost half of the entire federal budget for commerce.

- The 1996 Economic Impacts for All Hunting in CA:

  Retail Sales: $982,097,906 Multiplier Effect: $2,100,374,184

  Earnings: $618,208,449 Jobs: 26,802 Sales Tax: $59,844,553

  State Income Tax: $6,688,258 Federal Income Tax: $66,398,026

Big Game Species

Here are some examples of often unreported wildlife impacts and population levels in relation to the remaining free-roaming wild horse and burro populations.

Elk

Elk are the third largest species of free-roaming wildlife populations in the United States. Primarily grazers, they compete for similar forage species, specifically grasses, as do both cattle and wild horses.

The Animal Unit Month (AUM) ratio for elk compared to wild horses is .7:1 or approximately three elk consume the same amount of forage in two months as one wild horse does. (34)

According to a recently published document on current free-roaming elk populations for just five states titled, "Elk Management in 5 Western States", in 2007 approximately 675-700k elk were estimated as occurring in Colorado, Idaho, Utah, Montana and Wyoming.

While elk populations continue to expand nationally, wild horses and burros continue to decline, removed partially due to their "competition" with the native wildlife species such as big game trophy animals such as elk. Here is some of the most recent facts and statistics on free-roaming elk populations.

- In 2007, the combined estimated elk populations were 675-700 elk in just these five western states alone: Colorado, Idaho, Utah, Montana and Wyoming. The gap between elk population estimates is almost as large as BLMs entire allowable management level of both free-roaming wild horse and burro populations across the West.

- Elk forage consumption for these five western states equates to almost 2.8 million AUMs while wild horse and burros combined continue to be allocated just 309k AUMs, just 11% of what elk alone are consuming.

- The State of Montana has an estimated elk population of up to 160k. If wild horses and burros were substituted for elk, the entire national "appropriate management level" of 27k wild horses and burros plus every animal being held in long-term containment, now reported at over 33k, could be placed just in Montana **at least two and half times.** Montana Fish & Game estimate that 60% of their Elk Management Units are above population objectives.

- The White River-Flat Tops region is home to the largest migratory elk herd on earth – 40,000 elk, which just also happens to be about 13,000 more than the entire "approved" population throughout the West of both wild horses and burros – that's just one herd of elk.

- Colorado recently saw BLM declare the West Douglas Herd in Colorado, which spans 128k acres with an estimated 120 wild horses, as "unfit" for wild horse use. In Colorado, only 4 herds remain out of the originally protect 8 with a state "appropriate management level" of merely 812 wild horses. Meanwhile, Colorado's 2007 estimated elk population is 250,000 to 260,000 and has reported elk herds have been 10-15% above population management objectives for over 20 years.

Table 23. 2007 Free-Roaming Elk Populations vs. Wild Horse Populations

*AML is used to show what BLM believes is "appropriate" since wild horse numbers that exceed AML are removed.

State	Elk Population	Wild Horse AMLs
Colorado	250,000-260,000	812 Wild Horses
Idaho	125,000	617 Wild Horses
Montana	130,000-160,000	105 Wild Horses
Wyoming	90,000	3,725 Wild Horses
Utah	63,000	1,981 Wild Horses
.		170 Wild Burros
Totals	698,000	7,410 (approximately 1%)

Bighorn Sheep

Bighorn sheep are the most coveted of all big game species with the most recent population estimate now topping 70,000, (35) almost three times higher than the allowable management level for wild horses and twenty-four times greater than BLMs allowable populations for wild burros.

Bighorn sheep populations continue to climb across the country as federal and state agencies and bighorn special interest groups pour millions of dollars into increasing bighorn habitat with re-introduction after re-introduction, artificial habitat enhancements such as water developments, soil enrichments such as selenium, and severe predator controls. The constant maintenance and human involvement in their cultivation and expansion causes the bighorn sheep populations of today to resemble more of domestic sheep herds being allowed to graze on public lands versus actual wildlife surviving in their native ecosystems in self sustaining ways on naturally occurring resources.

Bighorn enthusiasts, and the tall dollars that back them, target wild burro habitat for bighorn introductions and a significant amount of both wild burro habitat and populations have been lost due to various land use decisions and aggressive involvement in these decisions by bighorn special interest groups and state Fish and Game Departments who earn revenue from their hunting tags.

While wild burro populations and habitat have been steadily declining, bighorn habitat and populations are at an all-time high and is it any wonder. Examinations of the revenue generating potential for hunting interests in bighorn sheep is sizable.

Because of their historical relative scarcity, the opportunity for the "average" hunter to draw a bighorn hunting tag throughout the course of their lifetime is almost zero. However, those that have the economic means to "purchase" a bighorn hunting tag through annual tag auctions are guaranteed these rare hunting opportunities through their purchasing power.

The following figures were cited for auctions of bighorn sheep hunting tags in March 2005, reported on Oregon's Department of Fish and Wildlife website(36) :

"SALEM – Oregon's bighorn sheep hunting tag was among the big winners at the Foundation for North American Wild Sheep's (FNAWS) annual convention in San Antonio, TX, last weekend, where it auctioned for $130,000."

"Hunters paid more than $2 million for 20 auction bighorn tags. A number of tags set records for the price received this year. Oregon's previous high was $110,000, in 1994. Arizona's bighorn tag brought the highest price of $199,000, and New Mexico's tag earned $177,800 for the tag to hunt Desert or Rocky Mountain bighorn sheep."

Table 24 illustrates the kind of revenue generated from these auctions. While the figures cited are exclusively for bighorn sheep tags, tags are auctioned off for a variety of species, including Elk, Pronghorn Antelope, and Deer, as well as "hunting combination tags".

Table 24. 2005 Revenue Generated for Auctioning Bighorn Sheep Hunting Tags

National FNAWS Convention, San Antonia, Texas, 2005

No.	Auction Tag	Bid Price
1.	Baja Sur, Mexico Vizcaino Biosphere—(Desert BHS)	$52,000
2.	Oregon—(California/Rocky Mountain BHS)	$130,000
3.	Utah—(Desert BHS)	$56,000
4.	Washington—(California BHS)	$45,000
5.	Texas—(Desert, Elephant Mountain BHS)	$72,000
6.	B.C.—(California/Rocky Mountain/Dallas/Stones)	$150,000
7.	Mexico, Tiburon—(Desert BHS)	$85,000
8.	Montana—(Rocky Mountain BHS)	$160,000
9.	Baja Sur, Mexico Vizcaino Biosphere (Desert BHS)	$66,000
10.	Utah—(Rocky Mountain BHS)	$70,000
11.	Navaho—(Desert BHS)	$36,000
12.	Texas—(Desert BHS)	$87,500
13.	California—(Desert BHS)	$75,000
14.	Nevada—(Desert BHS)	$72,500
15.	New Mexico—(Desert/Rocky Mountain BHS)	$177,500
16.	Colorado—(Rocky Mountain BHS)	$65,000
17.	Arizona—(Rocky Mountain/Desert BHS)	$199,000
18.	Idaho—(California/Rocky Mountain BHS)	$180,000
19.	Wyoming—(Rocky Mountain BHS)	$37,500
20.	Alberta—(Rocky Mountain BHS)	$180,000
21.	Tiburon—(Desert BHS)	$100,000
22.	Carmen Island, Mexico—(Desert BHS)	$90,000
23.	2 nd Carmen Island, Mexico—(Desert BHS)	$100,000
		$2,286,000.00

In Southern California, some of the oldest and most genetically distinct wild horse and burro herds in the West were zeroed out to favor exclusive use of habitat for bighorn sheep; the Coyote Canyon wild horses, which genetic tests revealed were a very pure strain of Spanish mustangs, and the Clark Mountain wild burros, cited as having "rare variants" and the most unique of all wild burro herds that BLM tested.

In Nevada's Lake Mead National Recreation Area, once home to the third largest wild burro population in the West, two of its three Herd Management Areas have been zeroed in the last ten years. The Muddy Mountains, which zeroed out the area for wild burro use using highly questionable standards, is now the second largest bighorn hunt unit in Nevada. Also, despite Lake Mead burros being "protected", Nevada Division of Wildlife's Game Division Chief, Russ Mason, has recently stated National Park Service merely shoots the burros to dispose of them.

III. Population Modeling

The use of the Population Modeling software programs by BLM in the National Wild Horse & Burro Program has become a standard tool in attempting to measure outcomes of wild horse populations, gather results and management actions to project effects on wild herds.

Relatively new and still evolving in presentation and parameters, over the last few years wide variations have been presented in wild horse and burro gather proposals that have made it difficult to determine if the outcomes and management alternatives considered in the proposals are yielding consistent results when BLM Wild Horse & Burro Specialist conduct trial runs for the proposals.

The original premise for a preliminary examination into the programs consistency and effectiveness was to compile data from existing trial runs published in BLM environmental assessments (EAs) and group similar proposals together based on shared removal numbers to determine if similar results were achieved during the trial runs.

However, this proved to be impossible at this time, due in part to a lack of similar gather proposals removing similar amounts of wild horses, but mostly due to inconsistencies being applied by BLM personnel themselves for the projected time frames of the trial runs. Proposals ran models anywhere from 4 to 20 year projections and often there were gaps in data in the proposals as well as the trial runs themselves.

Eighteen EAs were examined but only a few showed population levels similar enough to be used for comparison purposes. Of those few, none had applied the same time frames for projecting management impacts to the Proposed Actions and Alternatives. However, three case studies have been provided in Appendix VI. for more detailed information and review.

One example, the New Pass/Ravenswood and Augusta Mountains HMAs in Nevada was a joint gather proposal between the Battle Mountain and Winnemucca Field Office. The Battle Mountain Field Office choose to run a 5-year model on the New Pass/Ravenswood HMA while the Winnemucca Field Office choose to run a 10-year model, all within the same proposal. (37)

Additionally, it was noted that many of the proposals had been issued under a "Complex" gather plan that included more than one Herd Management Area (HMA). By grouping population levels together, additional questions and obstacles were raised in attempting to match proposals together for comparison.

For example, the BLM Ely Field Office Dry Lake Complex EA used the combined total of three HMA populations as the baseline figures for determining if the individual population levels would/would not crash (38) as well as the BLM Tonopah Field Station's Monte Cristo Complex, which also included a Wild Horse Territory (WHT) to combine baseline total populations (39).

In fact, a large portion of the gather proposals were not written for a single HMA or single population but used total populations of the combined HMAs in the Complexes for their projected trial runs to determine the effectiveness of management actions.

This also raises questions as to the actual reliability of projecting outcomes for wild populations as individual management areas of self-sustaining populations and whether their populations will truly be stable and not "crash" as a result of removals, fertility control applications, sterilization and established AMLs within the HMAs.

Also, the data used to develop the software, such as foaling and mortality rates, was taken from the Garfield Flat HMA in Nevada over the course of a three-year period (1993-1996). It is unknown if that data is reflective of all HMAs, herds, reproduction rates and local habitat. For example, the Augusta Mountains HMA was reported by the BLM Winnemucca Field Office as having historically higher actual growth rates than the trial runs projected through the Population Modeling trial runs. (40)

Other concerns include BLM not publishing the actual or complete results of the trial runs but creating their own summaries and graphs that may not accurately reflect the total spectrum of data and resulting outcomes. (See Case Study #3)

Additionally, it has been noted that BLM may choose to "select" only limited information on the results through omissions and selective reporting that leave the results of the trials in question as to whether data is being manipulated to support a biased agenda versus objective analysis.

One such example of this can be found in the BLM Nevada Ely Field Offices recent gather proposal for the Antelope and Antelope Valley HMAs. Only sparse and selected data was offered without matching reports that helped the reader determine the basis for those results and definitely leaves the impression that BLM is only providing information that they want the public to see, not the actual results or how they were obtained. (41)

While the original premise for this research could not be accomplished, what it did reveal were questions about BLMs input parameters, if they were using correct data in relation to the Proposed Actions and Alternatives, if these inputs were truly reflective of actual conditions and of course, the resulting conclusions that were based on these inputs, which was the basis of BLMs determinations that wild populations would not "crash" as a result of their management proposals.

Specifically, BLM states that the inputs should reflect the estimated populations, whether that be from post-gather population projections or the No Action/No Removal analysis, but many times the numbers used in the trial runs didn't match the estimated and projected populations for the proposals.

Furthermore, BLM states that they use the median averages to interpret the data but often times, the median data is not reflective of actual conditions. Some of these issues have been outlined and examined in the following three case studies taken from prior BLM wild horse removal proposals.

In Case Study #3, the closest approximation to the post-gather populations indicated that wild populations would begin to decline under BLMs Proposed Actions and Alternatives yet BLM stated they did not use these but used the median numbers to project reasonable outcomes.

Besides the obvious concerns this issue raises in and of itself, the ramifications spread even further as actions that authorize fertility control treatments, the newest management option being considered of sterilization of studs via castration, or just the allowable population levels BLM authorizes through the AML process, all of these issues raises the concern that the inaccurate use of the program could have irreparable and unavoidable adverse impacts to viable, self-sustaining herds.

One of these irreparable impacts is BLMs use of the WinnEquus software to project outcomes of populations that may include up to 25% of the wild herds being stacked with geldings after removal operations. The draft research and trial runs were conducted by BLM in July 2006 in a paper titled, "Options for Managing a Non-Breeding Component within Self-Sustaining Herds of Wild Horses". This proposal would permanently effect almost 1,700 of the remaining free-roaming populations throughout the West in 49 HMAs and 4 Wild Horse Territories managed by U.S. Forest Service. Improper application of the trial runs and projections could have deadly consequences to the remaining populations and herds.

This most basic examination of BLMs use of the Population Modeling software is by no means complete. In fact, they raise more questions than they answer and it is not the intent to use this report as proven evidence that BLMs application of the software is in error.

However, it is intended to provide evidence that there are still questions about its effectiveness, uses, reliability, clarity and a need for consistent application throughout the WH&B Program before it can be deemed absolutely effective, accurate, safe and free from further scrutiny or analysis.

Currently, many of the trial runs examined revealed the populations most in alignment with BLMs actual proposals for remaining post round up populations were only yielding small reproduction rates, relatively little actual herd growth and in some instances, actually noted declines.

V. Fertility Control

PZP (porcine zona pellucida)

For over ten years, BLM has been administering an experimental fertility control drug called PZP on wild mares returned to the range after the round ups. A population management reduction strategy coordinated through the Humane Society of the United States (HSUS), the use of PZP was originally hailed as an upcoming and effective method to slow down reproduction rates, reduce the frequency of round ups, reduce holding and adoption costs while also decreasing stress on both wild horses and their impacts to public lands.

Though extensive information is available on PZPs use through 18 years of research and an estimated 3,000 treatments as of 2006, as well as the intensively managed National Park Service herds of the Assateague Island wild horse populations for over eleven years, BLM or HSUS has failed to publish much in terms of what the actual impacts have been to BLM managed herds, how many have actually been treated, for how long and if PZP has been delivering all it promised too. (42)

Additionally, due to the number of wild horse and burro populations BLM appears to be arbitrarily inflating, inconsistencies with the Winn Equus Population Modeling trial runs, including those conducted to examine the impacts of PZP, the likelihood of accurate information about its current and cumulative impacts is relatively minimal.

However, one thing can be said for certain – BLM has not reduced round ups as a result of its use.

It would also appear that BLM is reporting, whether accurately or not, that PZPs use has been insufficient to stem the reproductive tide of the herds it has been administered too. As a result, they have begun exploring other reproductive options.

Castration/Geldings

This idea originally started at the National Wild Horse and Burros Advisory Board Meeting on November 8, 2004, as Board members requested BLM research the possibility of using lands such as vacant allotments for long-term holding of some of the geldings being held at facilities to try and reduce holding costs.

On April 10, 2006 BLM finally got back to the Board regarding this discussion and option with their answer limited to, "A number of issues preclude using vacant grazing allotments for excess wild horses."

However, BLM immediately offered the option of castrating stallions after the round ups and by July 2006, BLM submitted a draft paper proposing stallion castration to the Advisory Board titled, "Options for Managing a Non-Breeding Component within Self-Sustaining Herds of Wild Horses." (See Appendix VII)

According to BLMs draft plan, approximately 1,700 stallions are being considered for castrations after round ups in 49 Herd Management Areas and 4 Wild Horse Territories (WHT), approximately 25% of the total Herd Management Areas still remaining.

Despite many of the individual populations failing to qualify for serious population controls due to relatively small AMLs, BLM was able to circumvent this concern by lumping individual herds together under a "Complex Umbrella" or "Meta-Population" and applied their combined populations to justify considerations for permanent sterilization.

BLM has just launched the first of these through the Las Vegas Field Offices recent decision dated June 23, 2008, for the Nevada Wild Horse Range, the first and oldest of America's protected wild horse herds.

Though BLM initially proposes to start with a study population of 30-35 geldings on a military base they often have trouble accessing, they have also approved of other options as well including increasing gelding numbers up to 100 or completely eliminating the Nevada Wild Horse Range wild horse herds and replacing them with a 100% gelding population. (43)

HMAs Considered for Gelding Management as of July 2006 ~52 Herds

California: Twin Peaks

Nevada: Antelope, Antelope Valley, Spruce-Pequop, Goshute, Blue Mountains, Kamma Mountains, Lava Beds, Seven Troughs, Nightengale Mountains, Shawave Mountains, Buffalo Hills, Granite Range, Fox-Lake Range, Black Rock East, Black Rock West, Calico Mountains, Warm Springs Canyon, Buck and Bald, Maverick-Medicine, Callaghan, Clan Alpine, Diamond, Diamond Hills North, Diamond Hills South, Fish Creek, Seven Mile, Little Fish Lake, Little Owyhee, Snowstorm Mountains, Monte Cristo, Sand Springs East, Sand Springs West, Nevada Wild Horse Range, New-Pass Ravenswood, Owyhee, Little Humboldt, Rock Creek, North Stillwater, Pilot Mountain, Stone Cabin, Saulsbury, Hot Creek, and four U.S. Forest Service Wild Horse Territories (WHT).

Utah: Sulpher Springs

Wyoming: Adobe Town, Salt Wells Creek, Divided Basin, White Mountain.

Additional concerns include:

- What kind of effect will adding geldings have to the already controversial issue of genetically viable herds? If geldings will now be included in the maximum populations allowed, won't this create the illusion that wild herds are more genetically viable than they really are?

- Once BLM begins gelding them, will they have to tell the public every time they geld more or only the first time? Will they start with a proposal that gelds 20 stallions but will more be gelded every time they do a round up? Will they be required to tell the public "We plan on gelding 5 more? 10 more? 20 more? Or will they just do it based on their own best judgment?

- Since statistical analysis has revealed wild horse and burro populations are actually 50% less than what BLM is reporting, what kind of impact will this gelding program really make on the sustainability of the remaining herds?

- In the Nevada Wild Horse Range gelding plan, BLM has approved a variety of surgical techniques, many of them rather vague but include options such as castrating stallions directly in the field and releasing them within 24-48 hours after surgery while simultaneously stating that geldings will be monitored for at least 7-10 days after surgery. If stallions are released back on to the range within 24-48 hours, how will BLM monitor them for 7-10 days to know if complications develop, if they begin bleeding or bleed to death?

- How does BLM intend to study gelding behavior in a highly restrictive environment such as the Nevada Test and Training Range/Nellis Air Force Base? Why did BLM choose such a remote location to implement this "gelding only" proposal?

- Is it BLMs intent to have authority to transport geldings into a military base where there is no public access for discreet "disposal"?