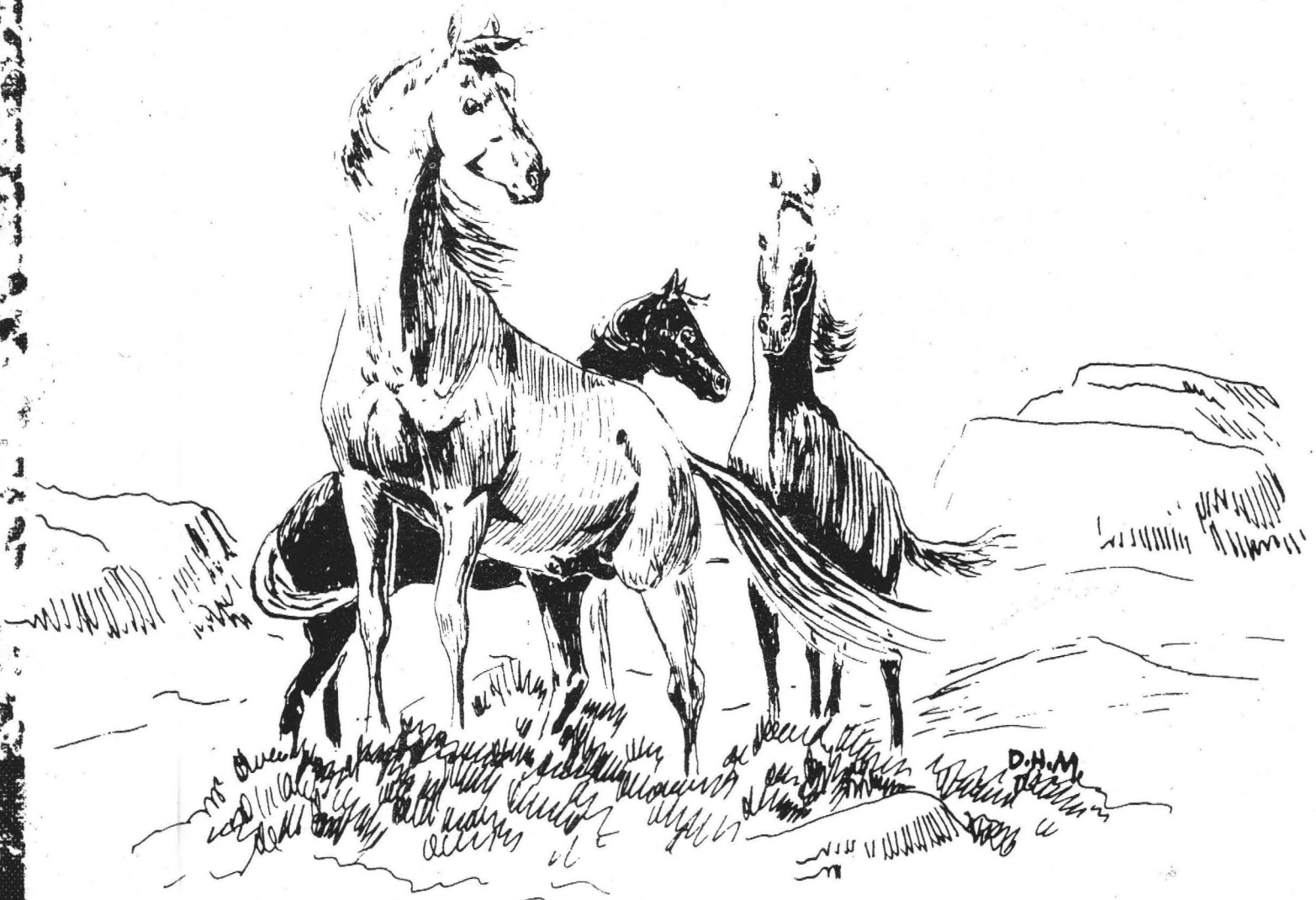


Proceedings National Wild Horse Forum

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FORWARD

The National Wild Horse Forum was convened to educate, to improve communications among diverse interest groups and to provide a basic reference document and guide for future actions relating to free roaming horses. There was no intent that the Forum would develop specific recommendations because we did not wish participants with "minority" views to feel intimidated. Nor did we wish the proceedings to take on the "air" of a hearing. Nevertheless, it is believed much more than the original objectives may be achieved with the publication of the proceedings.

The papers presented are well prepared and comprehensive (Chapters I through VIII). Constructive communications were indeed initiated among diverse groups and should be continued through the unanimous resolution of the Forum participants to continue communications and coordinated activity through a "Council of Delegates." Those who participated in group discussions found more areas of agreement among the various groups than expected and were encouraged that many differences could be worked out. The Group reports and summary, Chapter IX, and the highlights from discussion sessions, Chapter X, reflect these feelings and should be useful guides to legislators, administrators and others who must weigh public opinion. And, finally the "Summary Statement and Challenges" immediately following this, presents a "Synthesis of the Forum Message" prepared by the Group discussion leaders. This should be a great value to all who are seeking to understand and resolve the various issues that relate to the wild horse and to public land management.

The Forum grew out of two principal forces: (1) Senator Paul Laxalt of Nevada who sought help from the University of Nevada in securing sound data on facts and values on which to base legislative proposals, and (2) the Nevada Range Research and Development Committee that suggested the national forum and encouraged the University through Dean Dale W. Bohmont to serve as the sponsoring organization.

A great number of people and groups provided invaluable assistance to the Forum and are continuing to do so. Most of these appear on the list of participants. These groups and individuals, however, should be sought out for special thanks.

1. Those who provided continuing guidance, leadership and assistance in planning and carrying the Forum through to this conclusion:

Dale W. Bohmont
Roy Young
Ed Rowland
Velma Johnston
Terry Retterer

Mike Pontrelli
Tom Ballow
Bob Wright
Doug Reynolds

2. Those groups that provided funds for some of the niceties and kept us (at least to this point) from running into the red:

- a. Nevada Independent Insurance Agents, Larry Kees, Executive Secretary
- b. Animal Protection Institute of America, Susan Lock, Vice President
- c. Nevada National Bank, George Aker, President
- d. Nevada Cattlemen's Association, Bob Wright, President
- e. Wild Horse Organized Assistance, Helen Reilly, Trustee
- f. International Society for the Protection of Mustangs and Burros, Helen Reilly, Founder and Executive Secretary

A FAREWELL TO ANNIE

Velma B. Johnston - Wild Horse Annie to all of us - opened the Wild Horse Forum with a taped greeting. She was too ill to participate but she wanted us to know what she thought the Forum was all about: "to bring people together - people with opposing viewpoints - and try to come to a common meeting ground."

Annie passed away on June 27. If this Forum established the foundation for this "common meeting ground," it will surely be an appropriate monument in her memory.

Read this - an Editorial from the Nevada State Journal of July 1, 1977:

WILD HORSE ANNIE

Reading about Velma Johnston, better known as "Wild Horse Annie," one often comes across the metaphor, "Little Old Lady in Tennis Shoes."

The point invariably, was to say that Wild Horse Annie was definitely not one of these.

The deceptively fragile looking, 5-foot-6-inch Annie was indeed small. But she was never old in spirit, and the label of dithery, impractical enthusiasm could not have applied to her.

Annie's detractors would have undoubtedly preferred her to be weak and sentimental. What they got from Annie was a tough, hard-headed realist who marshalled her facts, set about her campaign to protect wild horses with steely determination and who often had a gun handy for self defense.

She was in her way as symbolic of the American spirit as the horses she worked so hard to protect.

A writer for a national magazine once decided that Annie's sympathy for the plight of defenseless wild animals was a result of the pain she endured as a child, struck with polio and encased in a body cast for a year.

She did possess a special empathy for suffering beings, but she did more than sympathize.

Annie was first awakened to the plight of horses in 1951 when she saw a truckload of bleeding, thirsty, frightened animals being transported to a rendering plant.

She marched down to the Nevada Legislature first. As any woman knows who has appeared before that body, being a woman concerned with suffering living beings does not guarantee one a place at the top of the legislative calendar. And when these living beings are horses and when business and ranching interests are arrayed in opposition, it appears to be a hopeless task.

It was in the Nevada Legislature that she received the name "Wild Horse Annie." It was fastened on her in derision but it stuck and Annie came to love the name and regard it as a symbol of her battle.

Somehow the bill to prevent roundups in motor vehicles or airplanes passed the legislature. But since most horses

grazed on federal land, she realized that a similar bill would have to be passed by Congress.

She enlisted the aid of Congressman, Walter Baring. And when it appeared that she did not have a constituency to support her drive, she made the brilliant decision to make her battle a children's crusade. She sent letters to grade school children around the country outlining the plight of wild horses and telling them they could help by writing their Congressman.

A Wily Texas congressman was asked whether he was interested in the bill that was being supported so zealously by school children. "You bet your cowboy boots I am," he replied.

Annie was quite simply a superb lobbyist. She worked hard, she got her facts together. And she wrapped the entire package in a passion and eloquence which was hard to resist.

Testifying before a House committee in 1959, she described the wild horse and brought the entire room to its feet: "He is a symbol of freedom for all. He is our American heritage, as meaningful to us as the battlefield at Yorktown or the white church at Lexington. Even more so because he is a living symbol."

Even after the 1959 Act, she maintained her vigilance and, by 1971, she capped her crusade by successfully lobbying the Wild Free Roaming Horse and Burro Act. The merits of the act are still debated and she was defending it until the end.

Annie was not a sentimentalist. And she kept her emotions in firm control. "Often I want to lash out," she said, "but I can't because I must not lose my power to reason. Even my detractors say I'm cold-bloodedly logical rather than emotional. I have never referred to the wild horse as beautiful noble creatures because they are neither. Today's wild horse is not the glamorous mustang of years ago. He is for the most part underfed, scrubby and inbred."

Annie was a legendary character when she lived. And Nevada historians should make certain her legend is kept vivid. Beyond her success in protecting free roaming creatures, she was a living example of what one person can achieve in the American political process.

NATIONAL WILD HORSE FORUM SUMMARY STATEMENT AND CHALLENGE

This statement is an effort to synthesize the Forum "message." This was prepared by the Forum Coordinator, with assistance from Group Discussion Moderators.

A SITUATION STATEMENT (All participants would accept this.)

Wild horse management issues should be considered as a part of the broader issues of range management and public land use. Wild, free roaming horses are a valid and desirable component of the public land and should be perpetuated in reasonable numbers. The nature of their coexistence with the other public land forage consumers - wildlife and domestic livestock - is largely dependent upon the numbers of animals in relation to forage availability. When competition occurs, not only is the health of the grazing animals effected but the forage base - the soil and plant resources - is damaged. As degradation continues, fewer and fewer grazing animals can live together on the public lands. Therefore, the protection of the basic soil/plant community is recognized as paramount.

Range conditions are deteriorating in some areas and these situations are especially serious because of drouth conditions in various parts of the West. The urgent need for reduction of animal numbers in such areas is recognized. Domestic livestock use must be adjusted to be compatible with other resource values and all grazing trespass eliminated. Wildlife may be reduced where necessary by hunting. Where horses must be removed, it must be done humanely.

The Adopt-a-Horse program is a positive step in utilizing and caring for excess wild horses but it can only be a partial answer. Procedures involving unclaimed branded horses must be reviewed to resolve the current trespass dilemma. However, even where these programs are fully effective there will be a continuing need to humanely dispose of excess unadoptable horses.

Wild horse sanctuaries should be considered but not as a panacea. Long-range management must establish stable population parameters that will still require a continuing program for removal and disposal of excess horses.

The need for wild horse and related range research is recognized but specific needs are clouded by general lack of confidence in data provided by agencies. Better cooperation and information exchange is needed among interest groups concerned with wild horses and public lands. Agencies should more effectively use interest group participation in their decision-making process. Wild Horse issues have helped draw public attention to the public lands and this interest in horses should be utilized as a vehicle for better public education in resource management problems.

Amendment of the 1971 Act may be necessary but must be approached with caution. Agencies are probably under-funded and under-manned. Legal restrictions and public attitudes create additional serious administrative problems, and the agencies have not gained the confidence of the major interest groups. Because of all these factors, current progress in wild horse management has been disappointing.

UNRESOLVED MAJOR ISSUES

In many cases we have agreed in the general but not in the specific. In several matters we came very close to consensus but not quite. We agreed that action is urgently needed but if it is to proceed with the support of the Forum, we must come to grips with these major issues:

1. We have agreed that there is an urgent and immediate need to reduce horse numbers in certain areas but have not identified these areas, the kinds and quality of supporting data needed, nor the acceptable techniques for capture and disposal.
2. We have agreed that consideration should be given to wild horse sanctuaries but before action is taken we should know the specific criteria that will be acceptable in establishing sanctuaries. We also should develop some acceptable management guides for sanctuaries and for horse management outside sanctuaries.
3. We have agreed that some horses will have to be humanely destroyed but have not agreed on whether or how we should use or dispose of the carcasses. This is probably the toughest question of all but also the most dangerous question for us to avoid.
4. Most (*but not all*) agreed that "transfer of title" to excess wild horses had far more benefits than pitfalls and was a critically needed change now. However, many are reluctant to consider changes until we have more experience with the existing law. What approach towards legislation will be acceptable to such groups?

THE CHALLENGE

A final, unplanned action of the Forum was this resolution introduced by Dean Bohmont, seconded by Roger Van Teyens and adopted unanimously by the Forum participants present: "*that a Council of Delegates be formed of interested participating organizations to follow up the development of solutions through organizations, agencies and legislation.*"

We are confident that a "Council of Delegates" will be formed, and believe it can be effective if each Forum participant immediately begins to work with his or her organization to support and explain the present areas of agreement and to work *constructively* towards resolving the major issues we have pointed out.

We, the Forum, have agreed that some matters require immediate action and must recognize that some actions will not please all of us. We urge all Forum participants and friends to respond to such situations in the spirit of cooperation and hope that we saw develop at the Forum.

HOOF BEATS AND HEART BEATS

Douglas A. Reynolds*

Said the little Eohippus, "I am going to be a horse, and on my middle fingernails I'll run my earthly course," goes the poem "Similar Cases." And in 58 million years, the-forum's subject did change from the dog sized "Dawn Horse" with four toes, to the Modern Equus caballus who walks on the fingernail of the middle digit. The early ancestors of the horse resembled its near relative, the Tapir, in form and foot. The Tapir did not change in 50 million years, but Eohippus had a destiny to fulfill. The end is not yet and the horse continues to be a part of man's economy and politics.

I have a few remarks regarding some of the events, thoughts and actions which occurred as part of the destiny. My position as a University Horse Specialist puts me in contact with horses and their associated people every day. Hundreds in a year. Some days are fun, some frustrating, but either way, nearly always political. There are times I feel as diplomatic as a big white puddin-footed bell mare, headed downhill crashing through the brush and rocks. Not everyone will agree with my views--not everyone looks from my vantage point. I hope no one is offended.

Horses have been part of man's economy and fantasy since first they met. No other animal inspired man's emotions like the horse, nor lent itself to as much imaginary literature, art and management. The horse is found in the legends or mythology of almost every race except the American Indian, where the coyote was the legendary animal. He also inspires a lot of imaginary management.

The horse incites people to do, write and say things which may be foreign to their training and background. Most people are a couple of generations removed from the horse era, but would never admit they are ignorant of horse behavior and handling. A new owner will tell the horseshoer "I'd do it myself except I have a bad back." Five-year old school children on a livestock tour will admit ignorance of cows and hogs but tell you they already know everything about horses. Adults invariably sit on the back row of a horse clinic and drink coffee so no one will suspect their ignorance. There are more wild horse specialists helping run the current situation by remote control and "Letters to the Editor" than grandstand quarterbacks at the Superbowl. Rueb Long, the Cowboy Philosopher, knew what he was talking about when he said, "It's truly amazing how many people know so little about so much. Their trouble isn't ignorance, it's the fact that about 90 percent of what they know isn't so. The more scanty the knowledge, the greater the certainty."

Horse books, movies and programs which are largely nonsense, but entertaining, have encouraged us to replace real horse characteristics with non-existent traits. It's nothing recent. Beginning with the Cro-Magnons and continuing with the Persians, Greeks and Romans, man has conceived fanciful uses for horses, accompanied by legendary horsemen. Recall the Centaurs, Pegasus, Unicorns, Jumarta and the Four Horsemen for a few. Artistic and literary license continues today, beginning with "True West" cowboy stories. running through imaginary mustangs and on to Walt Disney. These are acceptable as long as the truth is available and recognized also.

There is no reason to endow the horse with mental powers he doesn't have. He is stupid, but well equipped mentally and physically to survive in a natural environment. If he were smart, he wouldn't submit to man's uses for purposes beyond his comprehension. Under domestication, he is an artificial animal. But when he returns to the wild, his instincts sharpen quickly as domestication is a thin varnish over the wild beast. As far as man and history are concerned, the horse is easily the most remarkable animal ever evolved. Part of his destiny was evidently to serve man, as he has a combination of characteristics found in no other animal: withers to hold a saddle, shoulders to pull a load, teeth arranged to accomodate a bit, feet that can be shod, strength to haul, ability to run and, finally, the mental makeup to accept man's dominance and be coerced into anything he is physically capable of.

Our sophisticated society expects specific, research-based answers and decisions--except when it comes to horses. We don't want the truth, in fact, we prefer imaginary stories and can't wait to repeat them. The horses in Greek mythology are no more fanciful than those in our Wild Horse mythology. When the judgment day comes, we will be judged not only for what we stood for, but also for what we fell for. Examples: Letter to the Editor - (Popular Livestock Journal) "If the wild horses ever disappear, all we have to do is turn out a wind-broken stud with a bunch of spavined mares and we'll have 'em all back again." In looking at wild horses from one end of the State to the other, I never saw any that were born with unsoundness. Somebody must have turned out some junker ranch horses, as wild ones or these hindrances could not survive.

Letter to the Editor (in answer to another letter) - (Horse Admirer Magazine) "...Mrs. X knows nothing of the heritage of our wild horses....she fails to include the fact that a hardy, beautiful excellent working and pleasure horse - a mustang - is given free to an adoptive family...." Uh, Mrs. "Letter to the Editor" also fails to "include the fact that this jug-headed, roman-nosed, round-withered, apple-rumped stud will bite, strike, kick your trailer to pieces and eat you alive if he's got a few years and half a chance." Huxley must have had horses in mind when he said "The greatest tragedy of research is the cold-blooded slaying of a beautiful theory by an ugly fact."

*Extension Horse Specialist, University of Nevada, Reno

Scientists like to make an example of the horse, as the changes that occurred from Eohippus to Caballus substantiate some of their evolutionary ideas. As the earth's habitat changed over millions of years from lush jungle to treeless prairies, many different horse-like animals were tested by nature. By Pliocene times, a successful pre-horse, the Pliohippus, survived the changes to become the granddaddy of all equines - horses, asses and Zebras. During this period, the horse lost the use of all but the middle digit and acquired an elongated skull fitted with specialized teeth. He developed a running gear and circulatory system to out-distance long-winded predators. He also acquired the strong survival instincts to stay in a bunch, and run first - ask questions later!

By the Pliocene, many types of true horses had evolved. Surprisingly, most of those that have been studied are heavy-bodied horses, similar to draft type but with longer legs. Other warm-blooded types, similar to Przewalskys and Tarpans, with stream-lined conformation existed, but nature developed contemporaries that were adopted to the dense Pliocene forests. These probably exchanged some fleet-footed abilities for strength and camouflage. These massive types are found on both continents; one from Texas may have been 22 hands high. Peak periods of vegetation during this era produced some giant horses and brought many types together. Types peculiar to a Continent were exchanged as successive migrations paraded the equines back and forth across the Bering Strait and eventually located the surviving hard land types in North-Central Asia. Three thousand years after the final inundation of that Strait, the horse became extinct in America. Every reason from disease to overkill by man has been suggested. Certainly, the environment seemed ideal.

The historian who wrote "History has moved on horseback, and wherever man's footprint is found in the sands of time, alongside it is the horse's," was referring to the horse's more sensational role, but also accounted for man's primary food economy for thousands of years. Early man was not following the footprints with motions of equitation or sport. To him, the common term "a beautiful piece of horseflesh" meant a meal, not a ride. Piles of split bones, containing the remains of countless thousands of horses, have been found in ice-age sites in Europe. Domestication was milleniums away, but the Cro-Magnon, and other early men, held the horse in high respect, as evidenced by the hundreds of cave paintings of horses and models dating back to 28,000 B.C. Although many types of horses gathered in Ice-Age Europe, the art work was restricted to horses similar to Przewalskys and Tarpans. These had erect manes, stiff dock hairs and unexciting, dunn-like body colors. A few paintings suggest the characteristics of the cold-blooded types, and one, the famous Spotted Horse of Perch-Merle cave, has a long black mane. The Cro-Magnons apparently associated survival and its accompanying rituals with the prairie-type horses. They could be stampeded over cliffs and killed in large numbers. The same instincts allows contemporary wild horses to be run into traps for capture. We know little of man's use of the horse in prehistoric America.

The immediate wild ancestors of the domesticated horse are unknown. Much research has been devoted to the study of recently existing wild types and Pliocene remains. There are as many opinions as researchers. Some favor a single ancestral type, while others a multiple origin. Much of the wrangling is over whether the known wild types, Przewalskys (Mongolian or Asiatic Wild Horse) and the Tarpans are really probable ancestors. Both have characteristics of the horses in the cave paintings and the bone piles. Additional differences arise around the role of *Equus robustus*, or the so-called "forest horse." This was but one of the large cold-blooded types, weighing much like a large Quarter Horse of today. It is very likely that these types, along with others, crossed in the wild, resulting in conformation mixtures. Perhaps none of the three are true ancestors, but related along with the unknown type to a common ancestor.

Domestication of the horse occurred some 5,000 years ago. There is no documentation to prove where or by whom. The best guesses put it in West Central Asia where tribes, whose present economy is little different than when first encountered, still keep horses for milk, meat and transportation. Little time for horse mythology, just subsistence and reality. Taming may have occurred simultaneously in several places. Nevertheless, once man learned to harness and straddle Caballus, the horse quickly found his place in peace and war, and the history of the world was suddenly altered. The favorable events of history up to the beginning of World War II went to those who could use the horse most effectively.

Wild horses, or feral crosses, existed past the middle ages in Europe, being regarded as game animals by some, having been pushed into remote mountain areas. Przewalskys horse was saved from extinction in the nick of time, while the last wild Tarpan died in 1880. Observations of E. Przewalskys' zoo specimens provide some insight into wild horse behavior. However, breedings are arranged, feed is harvested, and handling is artificial. Captured wild horses, or even feral ones, frequently refuse to do their thing when being stared at. I won't either. We know less about the natural horse than most other mammals. Much of our knowledge of horse behavior is based on the altered gender - the gelding. Another artificial approach to wild horse psychology. However, the current costs of being a week-end cowboy has caused a lot of ex-domestic geldings to find a home in the hills. Those responsible for these turn-outs ought to be arrested. Prospective horse owners should be made to take lessons like prospective hunters take the hunter safety course.

There are a lot of opinions on wild horses and their behavior based on casual, even though continuous, observations. Deliberate studies and resulting reports are few and localized. Many ranchers and cowboys have seen wild horses all their lives and can tell you something about their ranges and their effect on grass, livestock and wildlife. However, a cowboy is usually busy and does not sit and observe details of their private lives. Most mustang admirers have never seen a band of wild horses, and what they know comes from books and publications. The most common view for any observer are the south ends of a band tooling north in a cloud of dust. Mine too. I shot stacks of slides of horses' tail ends before I discovered how to approach and on what kind of a day, when my observations were limited by time.

I wasn't inferring that written material is not good to review. Nobody can experience everything. However, those concerned with management decisions ought to have some first-hand experience. I have noticed that good zoologists even make erroneous statements because they are usually not well-versed on horse science.

I have discovered something about reports of wild horse behavior. Even when received from reliable sources, they tend to differ-one to another. Part of this is because of the observer's motives, be it layman or scientist. There is another reason. The horse is a versatile beast. He adapts to and survives under varying conditions. But he is a creature of habit and develops a routine approach to life based on circumstances. These may not be absolute, but are certainly predictable. I've seen horses run through broken-down traps which were over 70 years old. Same area, same trails. The wild stallion is not free at all. He is a slave to habit, instinct and a limited area. The horse has an instinctive need for security and finds it in an established pattern of acts and familiar territory. He also requires leadership and desires the company of other horses. If left without any of these, the horse becomes confused and neurotic.

In an attempt to re-produce an ancestral type, the famous Heck Brothers, German geneticists, crossed pony-sized native mares with a Przevalskys stallion. The off-spring were selected for primitive traits and bred back. Soon the off-spring closely resembled descriptions of the Tarpan. Many of their progeny survive at present. The experiments indicated that certain ancestral traits of horses could readily be selected. The characteristics of tame rabbits, pigeons, etc., are quickly absorbed and masked by wild ones -- but not so with the horse. There is so much genetic variation in our current public wild horses that the characteristics of almost any breed or type could appear by chance matings. No one knows how long, if ever, it would take for an undisturbed population of horses to revert to ancestral type. Nowadays, with Agency directed management, the breeding of many groups will remain artificial because of ignorance of what nature selects, our own ideas of a "pretty horse," and what we can get into a trap to cull out. People see the characteristics of Tarpans, Przevalskys, and most frequently, Barbs in the wild ones. I used to see wild horses "pacing" across Skull Valley in Western Utah when buckarooing for Deseret Livestock Co., but doubted if the Standardbred people would care to know. For years, in riding through isolated areas free from the influence of domesticated "turn-out", I watched many bands of bays and duns. Then, when about to pronounce a dumb statement about the return to dark primitive colors, a band runs out -- all sorrels with stocking legs and blaze faces. "Things are seldom what they seem," and I'd be careful in mixing too much imagination with the public's wild horse.

Practically all breed types have promoters who battle over which name, conformation standard and registry is correct--a lot like churches. Similar disputes have occurred over the unclaimed horses on public lands. To some, they are "wild horses," to others, "mustangs," to the Nevada Fish and Game, "Feral horses." Congress solved this dispute. Just like they can legislate the time of day, they can create a new type of horse. Wild-Free-Roaming Horses. With the current trend, it is a wonder they haven't required that captured ones be described in centimeters and kilograms instead of "hands" and pounds. The above-mentioned breed registries all have long lists of breed attributes, beginning with docile and hardy and continuing through intelligent and versatile. One wonders what breed the stupid, ugly, clumsy and unmanageable horses come from. Fortunately, there is no need for the Bureau of Land Management and U.S. Forest Service to promote the uses of their horses. "Hell, all you can do is look, can't touch em." "And they ain't much to look at, a bunch of inbred broomtailed nags."

I get a lot of reports about how scrawny and degenerate the mustangs are getting since Public Law 92-195 ended the practice of turning improved stock horse type stallions out with the wild mares, maybe accompanied by a dose of lead poisoning for the native studs. A logical method to provide a harvest of horses with some breeding, plus hardiness. Logical, but hardly legal under the provisions of the Taylor Grazing Act. The horses have been exploited for their usefulness to ranchers, authors, photographers and painters alike. From my view, I either have to accept all uses as completely unselfish, or be suspicious of them all under any label.

This more recent use of Quarter-type stallions inserted more genetic variation into horses already carrying Morgan, Standardbred, Arab, Thoroughbred and Draft blood from more remote, but original sources. The inbred label infers that stallions are breeding their own daughters. Few people have ever watched a natural breeding. No one is sure how much exchange of mares occurs, despite the old worn-out notions of stallion selfishly guarding his harem

of mares. When bands are mixed, the stallions may combat a little, then sort their own mares without error. But, this isn't when promiscuity occurs. With a near 50-50 sex ratio born and reaching maturity in most areas, there are young studs with family ideas always looking for a loose mare. Prehistorically, any careless young stallion was eaten up as they usually hung around the outside of the band and were the most likely wolf fodder.

Nowadays, with practically no predation occurring, except fences and cattle guards, they are "available." The small band sizes verify this. I have watched this thievery occur several times. Occasionally, a very aggressive young stallion is severely beaten by the harem stud. One of the primary reasons for smaller sizes occurring is that nutrition sets a ceiling on growth, regardless of genetic potential. Eventually, selection favors the smaller animal. I am aware that the AUM's used by horses is small compared to domestic livestock. But in looking at wild horses all over the State, I am also aware that horses are heavily concentrated in many areas. The only grassy plant in existence is Bronco grass (Downy Brome) and, although an invader, it must be a success as it is the only living thing.

A discussion of wild horse behavior, along with the behavior of associated people, could go on indefinitely, but at this point, I should remind myself of another of Reub Long's sayings; "Conversation is cheap - Ideas are dear, but they are seldom found in the same place."

THE ROLE OF THE WILD HORSE IN CHANGING CONCEPTS OF PUBLIC LAND USE IN THE WEST

Michael J. Pontrelli, Ph.D.*

Wow - This long title was almost what we called this first National Forum on Wild Horses. It's titles like this that take so much time in the saying that sometimes we miss the reasons for the title. What do wild horses have to do with changing concepts of public land use in the West? In the last analysis, I think it's this changing concept reality that brought us here today. The wild horse issue is probably responsible for more public awareness about public lands than any other issue, in fact, probably more than all other issues put together. And, it is the wild horse issue that probably will have the primary influence in guiding future public opinion on our public land resources.

Let us review how this wild horse issue has influenced the changing concepts of public awareness towards public land, how the concepts change and how future public awareness can be influenced.

First, how much of the public are we dealing with, what do they respond to, and how influential are they? If we take the total memberships of all of the organizations that regularly write about the protection of wild horses, assume that each membership represents a full family audience and depending on which estimate of organization size we use, we end up with a regularly informed, protection oriented population of between 500,000 to 2,500,000 Americans. Also, as any of you involved actively with the news media know, news involving abuse to wild horses is much more likely to appear in print than questions involving abuse by wild horses. I'm not sure which came first here but it is frequently true that news is printed on the basis of the greatest response expected and it is news about abuse to wild horses that brings by far the greatest response.

If you take all the people regularly receiving information on the protection of wild horses plus all the people who respond to news about wild horse abuse (or potential abuse) and realize that this issue prompts response by letter, telegrams, etc. to their legislators - we can easily see that the West is outnumbered, if not by actual numbers then certainly by numbers of legislators directly involved. Remember, we are dealing with the public land, not just western land or Nevada, or Oregon, or any other state land.

The following public responses are now history but nothing inhibits similar responses in the future.

The 1959 - "Wild Horse Annie Law" - prohibition of airborne and mechanized roundup, had "unprecedented public support". Passage in Congress was virtually without opposition.

The 1971 - "Wild Horse and Burro Law" - was reportedly the heaviest mail issue of the full congressional session and passage was without opposition. Testimony shows that many of the groups now opposed to the Law spoke strongly in its favor at time of passage. The week before hearings on the "Wild Horse Bill" brought 10,000 pro letters to the President's Office alone.

The "Adopt a Horse" program of the BLM has now mailed its total 100,000 first printing and second printing is now being done.

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An extensive effort among America's school children was made to name the U.S. Bicentennial Animal. It was not Ben Franklin's favorite - the Wild Turkey, or our magnificent Bald Eagle, it was overwhelmingly the Wild Horse. The project was dropped, I think probably because of the non-native status of the horse.

OK - so you knew all this about the popularity of wild horses. What about the public's changing concepts towards the West?

If you asked John Q. Public about public land twenty years ago, he didn't know or care about it. Public land was used and ruled by specific user groups, not because of subterfuge or illegal action, but because of public ignorance and apathy. Then came the Wild Horse issue. And never again should we underestimate the educational value of one issue on many other issues. Inhumane treatment of wild horses led to knowledge that these animals lived on *public land*, that vested interest user groups were dictating use on *public land*, that they the public had the right to demand and achieve *public goals on public land*, and that the West would never be the same.

Let's look at a few of the situations now before us in this Wild Horse issue. With each situation, I'll formulate some hypothetical statements and public responses

1. *Situation*: - In places there are more wild horses than can be accommodated in a thriving ecological balance.
 - A. *Statement*: - These (blank blank) wild horses are eating me out of house and home, my cows are starving to death.
Or - If you have to choose between cattle and/or deer and horses, I'll take cattle and/or deer.
Or - I love Wild Horses but we have to make a choice - so the horses go.
Public Response: - Anger at the cattle industry; anti-hunting sentiment; recognition of domestic livestock trespasses and overgrazing; comparison of domestic livestock and wildlife members versus wild horse numbers and increased controls on the livestock industry.
Increased protection of wild horses.
 - B. *Statement*: - The Wild Horse Law was so effective in protecting our wild horses that now there may be too many. They again need our help, because too many horses eventually lead to fewer horses and fewer everything else.
Public Response: - Horses need management, over-protection is as bad as under-protection. Horses are part of the ecological system related to everything else.
2. *Situation*: - What do we do with excess wild horses?
 - A. *Statement*: - All you can see is jugheads and broomtails, a .30-30 is the solution.
Or - Mustangs make great dog food and we solve two problems.
Or - The Adopt-A-Horse program is a joke, it won't work.
Public Response: - No commercial use; no private ownership; *increased protection of wild horses.*
 - B. *Statement*: - We must all sit down together and discuss alternatives for excess animals.
Or - Out of 100,000 inquiries we have only 4,000 responses for Adopt-A-Horse. We may have more horses than we can give away.
Public Response: - Disposal of excess animals is a complex problem, many Americans now know that management is necessary and they cannot use emotion only solutions.
3. *Situation*: - Should the Wild Horse be a component of the range or should they only be in a few select locations?
 - A. *Statement*: - Take all of them off our ranges and put those that will fit on a place the public can see them.
Or - If we don't remove those wild horses, we are going to be out of red meat or at least we won't be able to afford it.
Public Response: - The cattlemen want the ranges for themselves, control the livestock industry more; *increased protection for wild horses.*
 - B. *Statement*: - Once we collectively decide how the western range is to be used, we must discuss the possibility of removing wild horses in all but a few special wild horse areas.
Public Response: - Public learns about other range use; public helps in decision process.
4. *Situation*: - Some people think there can never be too many wild horses.
 - A. *Statement*: - If you let the uninformed emotional public decide - all we will have is (blank blank) wild horses.
Public Response: - Good!!
 - B. *Statement*: - Too many wild horses can adversely affect themselves and every other living thing.
Public Response: - Knowledge that wild horses and other living things need management (including man, himself).

In other words, wild horses are their own best public relations experts. If those who are concerned about too many wild horses say their concern wrong, the wild horses win every time - that is unless we do have too many horses then the horses and we all lose.

Are these wild horse created changing concepts good? The public now knows about public land. *That's good!* The public can learn about animal population management and even learn about the necessity to control its own numbers. *That's good!* And hopefully, our western public land will be managed for the most good for the most people for all generations to come, and that should include the presence of wild horses. *That's good!*

THE WILD HORSE AND ALLOCATION OF PUBLIC RESOURCES William F. Hyde*

I cannot tell anyone here anything new about wild horses. What I plan to do is to suggest how you can put your knowledge into the framework of an economist and, thereby, draw some conclusions about efficient allocation of those public resources (land, labor, equipment, and dollars) used by wild horses in competition with domestic livestock and wild game.

There are three parts to my discussion: (1) the general principles of resource allocation, (2) the general wild horse case, and (3) suggestions for how one would go about drawing quantitative conclusions in a particular grazing district.

I. Principles of Resource Allocation

There are two fundamental economic problems in the world, equity and efficiency. We will return to equity later.

Efficiency is the problem of maximizing social welfare from a given resource base. Profit maximization by each individual in a competitive market economy simulates welfare maximization. That is, society obtains its highest valued intertemporal output of goods, services and amenity values from the land and other resources of various qualities endowed to it by Nature if each individual follows certain allocational rules you all know intuitively: (1) Expand your operation whenever the benefits or revenues due to the last unit of input are equal to or greater than its costs. (2) When there are two or more inputs, if the benefits or revenues from the last dollars' worth of the first exceed those of the last dollars' worth of the second, sell some of the second and buy more of the more beneficial first input. Every rancher, for example, knows these rules: (1) He does not buy more hay if he thinks his stock will not benefit enough to pay for it and (2) he does not buy more hay, even if his stock will benefit, if they will benefit more from something else. If these rules do not hold for all inputs and all individuals, then sales occur and resources reallocate as one profit maximizing individual compensates another until the rules do hold.

Notice that this system bears no prejudice against the preferences, desires, or values of any of its citizens. If your preferences do not infringe upon mine you may pursue them, *without judgment by me*, until they no longer bring you benefits commensurate with your costs. If your preferences do infringe upon mine, as they might if you were a wild horse lover and I a rancher, then you would have to compensate me for my loss due to infringement by you. There is no need to stand judgment on anyone's preferences except as they affect one's own.

We all know the real world sometimes deviates from the world of the competitive market. There are monopolies. There are social costs and benefits which fail to enter the market: for example, pollution, or the cost in lost forage when wild horses trespass on ranch land. The market does not provide for all goods, services and amenities at the levels we prefer. For example, national defense could not be provided at a level commensurate with its social value if it were sold to individuals. (How much would you pay, particularly if you knew that you would receive full protection from the enemy even if you did not pay?) Another example is endangered species. It would be difficult to protect endangered species at a level commensurate with the sum of individual preferences if shares in individual members of each species were sold in the market. Such goods as defense and endangered species are called public goods. Public goods are (1) those goods which it is impossible to provide to some and not others (non-exclusion), as in national defense; and (2) goods for which the cost of collecting fees (transactions costs) is high relative to value of the good itself. The wild horse case includes both non-exclusion and high transactions cost aspects.

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The existence of public goods is justification for public intervention. Private individuals cannot profitably provide efficient levels of public goods. The public agency responsible for each good, optimally allocates resources in accordance with the competitive market rules. It has the very difficult problem, however, of determining just what are the good's incremental benefits and costs. For example, it is difficult enough assessing the ecological impact of another wild horse, let alone evaluating its social costs and benefits in dollar terms. When the economically efficient solution is in doubt we have debate--as here today--and resolution by means of either a new law or an administrative decision. (I am not so naive as to suggest that legislators and bureaucrats act to maximize efficiency, but certainly neither intends to act *against* efficiency.) Even the laws themselves, sometimes speak of administratively recognized efficiency (e.g., the new BLM Organic Act which speaks of obtaining fair market values for use of public land).

The Bureau of Land Management provides an excellent example of justifiable public intervention. Before, the Taylor Grazing Act range was open to anyone's stock. Non-exclusion led to overgrazing and prevented individual ranchers from making range improvements because they could not be certain of capturing the full benefit of their efforts. This problem could have been solved by selling the public land to individual stockmen, but to do so would have been to ignore, therefore to misallocate, other public goods originating on the public land. The solution is for each use of public land to pay its own way to the extent the (1) user is exclusive, (2) his costs are identifiable, and (3) transactions costs are small. Thus ranchers are required, under the new Organic Act, to pay the fair market value for grazing. Non-exclusion and high transactions costs, nevertheless, may still prevent BLM from covering the costs of maintaining the public land for its recreational and vicarious values.

We have discussed the rules for efficient resource allocation, as well as the justification for public intervention and the rules for efficient public resource allocation. We have yet to return to the other fundamental economic problem, equity. Equity refers to the distribution of wealth. Since individual and societal preferences may change drastically under a different distribution of wealth, efficient allocation of resources may also change. In some applied economic problems, equity is, therefore, a critical concern. In our case, however, equity is probably not an important concern. Adjustments in the size of the wild horse herd have small impact on any single individual. The group such adjustments is most likely to hurt is stockmen, and I think a candid observer would admit there already exist many public measures for protection of this group's well-being.

II. The General Applied Problem

The first thing we can do about the wild horse issue is to dismiss all arguments about the "nativeness" of today's wild horses. It is sufficient that some people have a preference for maintaining them. The job of the public resource manager is to see that this preference, like all others, is met at a level commensurate with its costs.

Of course it is reasonable to inform the public of the facts regarding these horses ancestry--but it is not clear just what the facts mean. These horses may not be direct descendants of the original Spanish horses, but this does not mean they are unnatural in their environment. Just what is natural or unnatural at this moment in time, or just what is the optimal historical link, is something for biologists and historians to argue. The fundamental point for us is that no one has the authority to judge another's preferences *vis a vis* wild horses once the facts are available.

Once we have accepted the preferences of some for continued existence of wild horses then we can proceed to discuss wild horse management. And wild horses will be managed, must be managed, by humans, otherwise the horses will be managed in accordance with natural law--overpopulation and coincident destruction of the range leading to death by starvation and disease. Predators would play a role except that we have eliminated most of them. One of the co-issues in wild horse management is humane treatment. There is nothing humane about the solutions of natural law.

Given that there will be human management of wild horses, wild horse managers should be aware of consumer demand as well as producer costs. This may sound patently obvious, but I submit that all too often public resource managers are satisfied with the simple knowledge that consumer demand exists before turning to the questions of production. They care nothing about the level or various forms of the demand. (And even when they turn to their production specialty they often show no awareness of the costs of production.) An example is wildlife managers who, for the most part, concentrate on the wildlife and neglect differences in demand for big or small game, trophies or hunting success of another sort, and hunting or just observing the game. But this is not "disparage wildlife managers day." Wildlife managers have a difficult job with only a little data on the consumer side. Wild horse managers have the same problem. If they are to efficiently allocate public resources, they must not only be aware of this problem, they must overcome it.

Qualitative Model

The general model for wild horse management compares consumer benefits with management costs. Again, efficient allocation of public resources occurs when an additional unit of management (one dollar's worth of labor, for example) yields as much benefit as it costs. The qualitative benefits and costs are:

- benefits = (1) value of recreational viewing the horses
 (2) plus the vicarious values
- costs = (1) opportunity cost for domestic livestock and wildlife
 (2) plus the separable cost of managing wild horses
 (3) minus the value of wild horses to their foster parents
 (4) plus the cost of public scrutiny of foster homes
 (5) plus the cost of negative externalities created by the horses

The value of recreational viewing wild horses is straightforward--if difficult to calculate. It is the value of the thrill a school child, for example, gets when he observes a wild herd. Vicarious values are those gained through the enjoyment of others or through just knowing something (wild horses in our case) will be there at some later date when one may want to enjoy it himself. Given the nationwide support for wild horses from people who are unlikely to ever see more than a picture of a wild horse, vicarious values may be large in our case.

Opportunity cost is the value of livestock and game foregone because horses are on the public range. There are many costs of general range management. Those directly due to wild horses, and not for the joint management of range for several purposes, are the relevant separable costs. The most obvious separable costs of wild horse management are round-up costs. If extra measures are required to insure humane treatment, including enforcement of regulations on foster homes these too are counted. Costs are decreased by the value of wild horses to their foster parents minus the costs of enforcing humane treatment regulations on foster homes. Externalities are unwilling costs incurred by private individuals and due to public wild horse management. (There can be beneficial externalities as well.) The most important externality is unwanted wild horse grazing on private land.

Implications of the Model

Even without quantifying these values there are a few things they *suggest* about optimal resource allocation: (1) an advantage to public, as opposed to private, management, (2) an advantage for a few centralized ranges and (3) a trade-off between viewing and vicarious benefits on the one hand and humane treatment on the other.

The difficulty of excluding non-pecuniary benefits, as well as the high transactions costs, both suggest wild horses are best a publicly managed resource. The difficulties in separating livestock and game uses from wild horse uses of the range reinforce this suggestion.

The way to get maximum recreational viewing benefits for the dollar may be to concentrate the horses on centralized ranges particularly suited for them, like the National Bison Range or the various waterfowl sanctuaries. Viewing stations, such as overlooks along roads and trails in the ranges, could be built with greater confidence that viewers would see wild horses from them than from the open range. Management costs would diminish as conflicts with domestic livestock use of the range disappear and as the protection effort is concentrated. Of course, such National Wild Horse Ranges would have to be taken from range currently devoted to other uses. Thus an additional cost of centralized range might be the cost of purchasing grazing rights from their current owners. Finally, we cannot overlook the fact that the range would have to be carefully chosen with the horse's natural range in mind otherwise they could easily escape (e.g., become a fugitive resource), first intruding on adjacent grazing land intended for domestic livestock and wild game, and eventually ranging afar and creating all the same problems we have today.

Mistreatment is a major reason for interest in wild horses and it raises some difficult questions. Given that management implies some control on population levels, that is some killing, then concern over mistreatment suggests to me that the killing should be done quickly, minimizing the agony. To my mind this is no different than the treatment I expect (but do not always get) in the processing of all livestock. Shooting is acceptable and there is no harm in rendering the remains. In fact rendering could be looked upon as conserving a resource, as well as a means for providing additional financing for wild horse management. Of course, these thoughts on mistreatment are my own. I have no difficulty accepting objections on ethical grounds. I do wish to point out, however, that the additional costs of other answers to the mistreatment questions imply less money is left over for other wild horse management issues, including providing for recreational viewing of the animals. Thus there is some trade-off between the two preferences for humane treatment and viewing opportunity.

The conclusion is one you already know. The wild horse is certainly no all-or-nothing issue. We must consider a variety of alternatives and competing issues--even in our own minds and aside from the valid preferences of others.

III. Quantitative Evaluation

Let us now return to the general qualitative model. In order for it to give us more than the above suggestions about efficient allocation of resources we must attempt to quantify its benefits and costs. These will not be the same for all sites. This point is important because it tells us that quantification cannot be done at a national or state level. Directives from the top can only give the district manager *qualitative* instructions--like the previous section--and provide

case studies for the purpose of *demonstrating* how to quantify. The actual quantities, therefore the solution to the allocation problem, must reflect land capability at the site. Land use planning is meaningful only to the extent that it is responsive to the capabilities (nature and quality of the resource services interacting with largely region-specific demands over time) of the land being allocated among competing uses. The evaluation of these capabilities cannot be accomplished without *site specific* economic and biological evaluations.

Properly, the initial demonstrative case study should be done by a research scientist either with economic and biological abilities or with access to associates with these abilities. His or her job is complicated by severe data shortcomings. Estimates must be made, nevertheless, for each item in the general model before any allocational conclusions whatsoever can be drawn. And we all know these conclusions will be drawn. (If they are not drawn from poor estimates, they will be drawn from ignorance. I prefer poor estimates to ignorance.)

The demonstrative case study should be chosen from a geographic area of sufficient size to include the full annual range of wild horses. The various costs, difficult as they are to estimate, should be easier than the benefits. Some can be gathered from the budgetary experience of local public agencies. (Better cost estimates can be obtained where public agencies use program budgets, that is, budgets associating inputs costs with output values. Such budgets are unusual in the Forest Service and BLM.) Other costs can be observed in the market. For example, the opportunity cost of domestic livestock use of the range. Where land use costs are unknown; particularly the costs associated with various management impacts on the land, the horse herd, and its competitors; biological expertise must be consulted.

Benefits of the recreational viewing and vicarious value sort are particularly difficult to estimate. We cannot ignore them,¹ however, if we expect to justify any level of wild horse population whatsoever. Experience in benefit estimation is limited, but some guidance can be found in (1) Gardner Brown's efforts at waterfowl evaluation (University of Washington Department of Economics), (2) Jack Gross' and his associates' efforts at big game evaluation (Colorado State University Departments of Economic and Wildlife Management) and (3) the efforts of the Policy Analysis staff of the Fish and Wildlife Service. I am unfamiliar with potential BLM sources. Others here today may have additional suggestions.

STATUS OF COURT ACTIONS

James W. Monroe*

The Bureau of Land Management has been thwarted in several attempts to control excess wild horses and burros on the public lands. For example, in August 1976, a contract was awarded to remove approximately 260 horses from the Challis Planning Unit in Idaho. The herd was to be reduced to approximately 150 animals. In subsequent years, the management plan would allow the herd to build up to 300 animals before further removal would be considered.

On August 4, 1976, the American Horse Protection Association filed for a temporary restraining order stopping the roundup of the excess animals. The restraining order was issued on August 9, 1976, and on September 9, the court ruled in favor of the plaintiffs on all counts. The court ruled that reports concerning population size were unreliable, describing them as "...estimated and speculative at best." This was despite the fact that the inventory figures were not "estimates," being based on actual aerial inventories conducted annually from 1971-1975, and despite the fact that the number of animals to be removed in the roundup was based on the actual 1975 count of 407 animals (which was later found to have underestimated the 1976 figure by at least 72 animals). The implication was that BLM, for some unknown reason, deliberately inflated the population figures.

Another ruling found that a lack of sex and age data caused the BLM figures to be "estimates, and unreliable." This ruling was issued despite the fact that these figures were based on actual counts and not on calculation requiring age and sex data. The growth rate of the herd was found to be "...unsupported by reliable evidence."

The court concluded that the proposed roundup should have been based on an analysis of all alternative courses of action that would have a less severe impact on the wild horse population, and specifically, that the alternatives of restricting livestock use on the wild horse winter range should have been considered. Less drastic means of population control should also have been considered. Arrangements should have been made to have a full-time veterinarian available on the roundup site at all times. The roundup should not have been scheduled pending review of the Challis Livestock Grazing Environmental Impact Statement. Based on these conclusions, the court found the roundup to be illegal.

¹It is too bad the research panel at this conference did not have time to discuss research on public demands, i.e., the benefits of maintaining a wild horse population. Such research is absolutely necessary in order to sensibly discuss trades-off between domestic stock and wild horse grazing values. Biological inputs are necessary, but the best biological information cannot establish these trades-off until it is seen in an economic context.

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The Bureau of Land Management, through the office of the Department of the Interior's Solicitor, recommended an appeal to the Department of Justice. The reasons for the appeal are based on testimony presented that showed that BLM did, in fact, consider reasonable alternatives to the proposed action. The court's misinterpretation of the basis of population figures is another reason for requesting an appeal. BLM did consider the matter of alternative means of population control despite the court's finding. Finally, the finding that a full-time veterinarian is required is unreasonable, and not required by the Wild Free-Roaming Horse and Burro Act. These considerations are now under review by the Department of Justice. The formal appeal will focus on the roundup issues with little or no emphasis on other aspects of the lower court ruling.

In an unrelated court case, the United States Court of Appeals for the District of Columbia Circuit has issued a decision dated February 2, 1977, that reversed a previous District Court ruling. The appeals court ruled that the Government's interpretation that "the State Brand Inspector makes the determination of ownership of claimed animals" is incorrect. The appeals court found that the final role in determining ownership is reserved to the Federal Government.

This appeal originated out of a roundup of horses from public lands near Howe, Idaho, in January and February 1973. Some animals were killed during the process of the roundup, the circumstances of which received national attention.

The Idaho Brand Inspector found that the 50-55 horses gathered in the roundup were not wild. A lawsuit was filed April 5, 1973, by several humane and horse protection groups alleging violations of the Wild Free-Roaming Horse and Burro Act and other Federal statutes.

In view of the ruling by the Idaho State Brand Inspector, the appeal under consideration in the District Court required a determination of only a narrow legal issue: Whether the Idaho State Brand Inspector has authority to determine claims to horses found on Federal lands. The District Court found that the Brand Inspector did have that authority.

The plaintiffs filed an appeal on the issue of the Brand Inspector's authority. This appeal was, as mentioned above, successful in overturning the lower court's decision.

The case has recently been returned to the District Court for further proceedings consistent with the appeals court ruling.

The full impact of this ruling on BLM and Forest Service operations, especially with regard to cooperative agreements with the States, is not known. Certainly, if the appeals court ruling stands, the Secretaries of the Interior and Agriculture will be required to determine whether claimed horses are wild free-roaming or privately owned animals.

If such a determination is to be made, the process to be followed in the Howe case will probably be treated as an exception to normal procedures. A unique review procedure to determine whether or not the horses are wild and free-roaming will be established. The BLM and Forest Service have recommended that an administrative law judge make a decision for the IBLA to consider and subsequently reach a final decision.

The results of this decision-making process will have an important impact on further deliberations of the District Court in the consideration of the original lawsuit.

STATUS OF LEGISLATION James W. Monroe*

For the past three years the Bureau has sought amendments to the Wild Free-Roaming Horse and Burro Act to enable us to better manage the animals. The Federal Land Policy and Management Act provided some of the new authority when we were authorized to use helicopters in gathering operations. In June 1974, a joint Agriculture-Interior report to the Congress suggested several amendments to the Wild Free-Roaming Horse and Burro Act of 1971. These amendments were included in a draft bill submitted by the Department of the Interior.

The Department also submitted these amendments to the 94th Congress. These bills would have: (1) defined "excess animal"; (2) clarified those provisions of the Act authorizing the capture, removal and destruction of horses and burros when they are excess animals, or are old, sick or lame, or when such action is an act of mercy; (3) authorized the use of aircraft or motor vehicles to control the animals and administer the Act; (4) authorized the sale and donation of excess animals on the written assurance of humane care; and (5) provided that upon such sale or donation, the animals would lose their wild status. It has been the view of the Bureau of Land Management and the National Wild Horse and Burro Advisory Board that enactment of authority to sell or donate excess animals and to use aircraft and motor vehicles is essential to effective management and coordination with other values of the public lands.

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To implement the helicopter/motor vehicle amendment to the Wild Free-Roaming Horse and Burro Act, the Bureau of Land Management and the Forest Service have promulgated a proposed set of regulations (see 42 Federal Register 4500). Hearings on these proposed regulations were held throughout March in all States which have wild horses and burros on public lands. We expect that the period for public comment will end on April 22.

On January 27, 1977, the Bureau of Land Management gave instructions to its field offices that "The use of helicopters for capture purposes shall not be authorized until such time as the proposed rules (42 Federal Register 4500) become final regulations."

As of March 7, 1977, there was no legislation pending to amend the Wild Free-Roaming Horse and Burro Act, as amended. However, there were several attempts to amend the Act in the last Congress and there continues to be significant interest in the problem of wild horse and burro control. We expect there may be similar attempts in this Congress. The drought in the West will intensify efforts to secure better control of wild horse populations. A proposal to provide for adequate means of removal and disposal of excess animals is under consideration in the Bureau. In addition, we have received many inquiries from Members of Congress on this issue. We feel that with some controls to prevent disposal of animals for unauthorized purposes we should be able to gain wider support for passage of title transfer legislation.

CHAPTER II - CURRENT MANAGEMENT PROBLEMS

MODERATOR'S INTRODUCTORY REMARKS

Roy Young*

As of January 1, 1977 I have ended my term as a member of the National Wild Horse and Burro Advisory Board and served as Chairman of the Board for the last year.

I feel that the Board has been very beneficial to the agencies in helping form the regulations, some of which I am sure I did not agree on, but we spent many hours on them at several different meetings. When starting on something that is new, it is always more of a problem.

The Board met in almost every state in the West that had a population of horses.

There is no question about the fact that there is and will continue to be a real problem with wild horses on the public domain as long as the law exists the way it is presently written.

Under the present law the only method of control on the horse is to shoot him on the land and leave him. The Bureau seems to be reluctant to do this because of what horse protection people may feel about it.

The only other method the Bureau has been practicing is the adoption program to people who will take a horse and feed him for the government. I feel that this method, although it has helped some, will not last long and the biggest problem to it is that the horse still belongs to the federal government, so all we are doing in this case is changing the horse from one area to another for maybe a short time because when the adoptee gets tired of the horse he calls the government to come and get him and they have no other choice.

The adoption program to my knowledge has not even kept up on a par with the increase of the population on the area where they are being gathered, so we can plainly see that there is going to have to be some other method used if we are to get the population back to where it was in 1971.

I am sure that if we could get legislation passed through the Congress where the agencies could give title to the horse there would be many more who would be interested in taking one. At this time there seems to be a cloud over the fact as to whether I, as a cowboy, can take one and use him for domestic use, and if I could there appears to be no way that I could brand him, so if he would get away I would have no identification on him to reclaim him.

I feel that Act was passed with a feeling from the people that someday the wild horse would be an endangered species, and that no one knew exactly how many horses and burros there were.

We all can see now that only in a few years time since the pressure went out of trying to keep them on at least an even keel that the population has been terrific and if allowed to continue there will not be AUM's enough to even take care of the horses and burros let alone the domestic livestock and the wildlife living on the ranges.

It seemed very evident in Western Arizona and Southern California that where the Wild Burro came in the Big Horn sheep disappeared.

I know of no method that has been perfected yet to control the burros because I haven't heard of anyone yet that asked to adopt one.

In Wyoming we went through a wild horse allotment that had all domestic livestock removed from it. There is a road that goes over the top of the mountain and out the other side allowing people to take their children and ride through the mountain and be able to see the wild horses. I think this may be something worth considering in other states.

In Nevada we have an estimated 20,000 head of horses and there is only one road (from Ely to Tonopah) where a tourist may be able to see some.

I feel that the Advisory Board has done about all that it can to help the agencies with the wild horse problem, because it seemed to me that the last year we did not do anything constructive enough to make it worth while to attend the meetings.

In closing I hope that the horse forum to be held in Reno, April 5-7 will come up with some constructive ideas that the Congress will have to work with and try to somehow put a better method of control on the population of wild horses and burros than we have now.

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WILD HORSES AND BURROS AND THE BUREAU OF LAND MANAGEMENT

James W. Monroe*

The modern horse was introduced on the North American Continent by early Spanish explorers. As the Spanish settlements moved north, large horse ranches were established in what is now the State of New Mexico, and the ranchers hired local Indians to care for their herds. When the Indians drove the Spanish out of New Mexico in the Pueblo Revolt, they confiscated horses for their own use. Animals that escaped from the control of either Spanish or Indian owners found the mountains and valleys of the western part of the United States to their liking, and wild horses soon covered a good portion of the West. These wild horses were called mustangs (a derivation of the Spanish word "mustano," meaning "wild").

Since the Bureau of Land Management (BLM) was established in 1946, few issues have created as much controversy or stirred such deep emotions as the program to manage wild horses and burros on the public lands. Riding the crest of public emotion in 1971, Congress passed without a dissenting vote the Wild Free-Roaming Horse and Burro Act to protect wild horses and burros grazing on public lands.

The Wild Free-Roaming Horse and Burro Act, Public Law 92-195, charges the Secretary of the Interior, through the Bureau of Land Management, and the Secretary of Agriculture, through the Forest Service, with the protection and management of all unbranded and unclaimed horses and burros on public lands administered by the two Agencies. The Act further recognizes these animals as integral parts of the natural system of the public lands, and charges the Secretaries to maintain them in a thriving ecological balance with all other legitimate uses of the public lands. It also provides a penalty for harassing, capturing, killing or selling wild horses and burros, and prohibits the processing of wild horses and burros into any commercial product. The maximum penalty is a fine of \$2,000 and imprisonment for one year.

We believe, as the law requires, that the wild horse has a legitimate place on the public lands, both historically and ecologically. At the same time, the BLM has a responsibility to protect the land and other social and environmental values. We cannot allow any special interest group to dominate other legitimate users. Proper management of all resources of the public lands, including wild horses and burros, is both a Bureau goal and responsibility.

Whatever the attitude toward wild horses may be, the animals are increasing in numbers under the protection of the Wild Horse and Burro Act. Some biologists believe that this poses a threat to wildlife on public lands, since the horses compete with wild animals for critical winter forage. The livestock operator who must also graze his cows on public land also sees the wild horse or burro as competition for forage and a threat to his interest. Those who want to see the wild horse protected are not alarmed by the increase in numbers. To them, the increase is only a reassuring indication that the wild horse is making a comeback under the protection of Federal legislation. Some critics point out that the wild horse that grazes on the Federal range today is not a mustang, but the fact that many wild horses' bloodlines trace back within a few generations to work animals of local ranchers is overlooked by those who want to see the wild horse restored to his niche on the public lands.

Wild horses and burros are not a vanishing species, nor do they face extinction. Present estimates place their numbers on national resource lands in excess of 60,000 including 30,000 in Nevada. These animals do not represent an overpopulation on all national resource lands. The Act confines them to the specific areas occupied on the date the Act was approved. The animals are not allowed to exceed their known territorial limits as they increase in numbers. Therefore, they are becoming overpopulated in areas they presently occupy.

All States where wild horses and burros were known to be present entered into cooperative agreements with the Forest Service and BLM to identify the responsibilities of each Agency in implementation of the Act. State officials make health inspections and the final determination of ownership on claimed animals. Determinations of ownership may rest solely with the brand inspector. The animals determined to be privately owned are not released until BLM has assessed trespass charges. The assessment of trespass fees has probably been a deterrent in the claiming of some animals. The agreements specified on what basis the brand inspector would make his determination when the animals are unbranded. New Mexico and Nevada have subsequently terminated the agreements that they had signed.

New Mexico challenged the constitutionality of the Wild Horse and Burro Act in February 1973 by condoning the removal of 19 unbranded burros from the public lands in that State. The burros were sold at public auction and subsequently taken into protective custody by the BLM. A three-judge Federal Court for the District of New Mexico ruled the 1971 Wild Horse and Burro Act unconstitutional and enjoined the Secretary of the Interior from enforcing or administering the Act. In early March 1973 an appeal was filed by BLM and the ruling was held in abeyance. In June of 1976 the Supreme Court, by unanimous decision, ruled that the Act was constitutional.

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In an unrelated case, the Circuit Court of Appeals in the District of Columbia reversed a previous District Judge's ruling that the government's interpretation "that the State Brand Inspector makes the determination of ownership on claimed animals" under Section 5 of the Act is incorrect. The Appeals Court ruled that the final role in determining ownership is reserved to the Federal government. Just what effect this ruling may have on the present Forest Service, BLM and State cooperative agreements is unknown.

Forage on the national resource lands was allocated to livestock and wildlife under the Taylor Grazing Act of 1934. No forage was reserved for future use by other grazing animals. Domestic livestock are controlled by an annual license; game animals are controlled by established hunting seasons; but wild horses and burros, with minimal natural predators, are uncontrolled and they have increased substantially since 1971. They are placing increasing demands on the forage supply which is reducing the capacity of the existing plants to produce. With this reduction in vegetative cover, erosion processes are accelerated and productivity of the land is further reduced. Eventually, all animals using this range will become weakened and disease prone, and subject to the elements because of the lack of enough nutritive food.

To alleviate these conditions, as an interim measure, BLM field offices were instructed to initiate plans to reduce wild horse populations to the 1971 level where vegetative and other conditions warrant such action until the optimum numbers of wild horses and burros, wildlife and livestock are determined through the Bureau's multiple-use planning system.

Through the planning system, the BLM will provide an equitable balance of the land resources for mineral exploration, recreation, wild horses and burros, wildlife habitat, livestock, timber and other uses in the national interest, and encourage public participation in the management of national resource lands. Presently, the BLM is in the process of determining the optimum number of horses and burros for each geographical area. This number will depend upon the suitability of the area, historical use, public recommendations and other values.

BLM personnel in those districts having wild horses or burros are preparing herd area management plans (HAMP) that specify the habitat requirements (food, water, space and shelter) for each particular herd. The plan gives the desired population level to be managed and maintained in balance with any other multiple uses within the area. Existing and needed range improvements are discussed in the plan. The type of control measures and timing of roundup operations are explained. Each HAMP provides a schedule for further studies and evaluations of the plan itself.

When necessary, domestic livestock numbers will be (and have been) adjusted or excluded in order to accommodate the desired number of wild horses and burros. After the optimum number of horses and burros has been determined, the excess animals will be removed from the area and the herd will be maintained and protected at that level.

The Secretaries of the Interior and Agriculture, in their December 1976 Report to Congress, recommended the following changes to Public Law 92-195:

"1. The Secretary is authorized to sell or donate excess animals on written assurance that such animals will receive humane care and handling and that humane methods will be used in the disposal of such animals. The Secretary shall establish procedures which give priority to persons seeking excess animals to keep and maintain for domestic use."

"2. Upon sale or donation, as provided above, animals shall lose their status as wild free-roaming horses and burros and shall no longer be considered as falling within the purview of this Act."

This proposed change in legislation is not intended to negate Public Law 92-195 but rather to provide the authority to properly manage wild horses and burros.

Under present law there are three alternatives for controlling wild horse and burro populations: (1) wild horses and burros may be moved to other areas where they existed on December 15, 1971; (2) they may be removed for private maintenance under an agreement to assure proper care for the animals; and (3) they may be destroyed in a humane manner.

The first option is limited, since the animals are increasing in numbers in all areas. General public acceptance of the second option prompted the Bureau to initiate in May 1976 a nationwide "Adopt-A-Horse" program, appealing to horse enthusiasts to provide "foster" homes for excess wild horses and burros.

The Bureau has used the third option in only a few instances, but is considering it in case of severe drought or in areas where terrain does not permit the animals to be captured by humane methods.

The main purpose of the "Adopt-A-Horse" program is to reach large numbers of applicants who desire to care for and maintain these animals at their own expense. The horses or their carcasses cannot be sold or used for any commercial purposes.

It is estimated that to properly protect the forage resources, approximately eight to ten thousand horses and burros should be removed each year from an existing population of some 60,000 animals. Approximately 1,800 animals have been assigned to individuals for humane care and maintenance from coast to coast in the United States at this time.

All applications for wild horses and burros are processed through the Washington Office. The applications are screened for the facilities and feed that the applicant can provide. The names of qualified applicants are sent to the automated data processing system in the Denver Service Center. As excess animals are captured and held, usually in central holding corrals in Nevada and Oregon, the District Manager requests from the Denver Service Center the names of applicants who have applied for animals of a certain age and sex. Approximately 4,000 names are in a computer bank in Denver. The BLM is discovering that many people who have applied for an excess animal will not accept one when actually contacted. Acceptance has generally been about 15 to 25 applicants responding out of every 100. Many of those asking us to hold a horse or burro fail to appear and pick up the animal. This type of procedure has proven very time consuming and costly to the government.

There are many situations that arise where the applicants accepted the animals in good faith and then events occurred where they could no longer care for the animal. Usually the distance to return the animal to the capture site is hundreds of miles and, if returned, the whole process of adoption starts over. Other choices for the individual with the horse or burro are to find a new guardian or request permission to destroy the animal. Another problem is that 90 percent of the applicants want young animals, and there are few requests for older animals which make up a large portion of any herd captured. If these animals cannot be assigned, they are destroyed in a humane manner.

In some areas, humane organizations will help. Again, their facilities and funds to take care of such animals as horses and burros are usually limited.

Most of the excess animals received by individuals are well cared for and the recipients are enthusiastic about getting the animals. Young people enter the animals into riding shows, 4-H fairs and use them for riding purposes generally. Some of the animals were accepted and are maintained in pastures without any attempt being made to train or domesticate the animals. Their custodians merely wanted to save the animals from destruction.

It seems apparent that the present system of using the "Adopt-A-Horse" program cannot continue to be a workable or practical method for handling the number of excess animals that need to be removed each year. The Bureau's legislative proposal would still provide horses or burros to those individuals who had the facilities and the desire to maintain and care for such animals. It would also provide that the government could economically and humanely remove the number of animals that must be removed each year to protect range resources.

Although the 94th Congress did not approve the proposal to sell or donate animals as recommended, they did approve the use of helicopters for capture purposes under Section 404 of the 1976 Federal Land Policy and Management Act. Public meetings to provide public review and receive comments on the proposed regulations pertaining to this provision of what is commonly known as the BLM Organic Act were held at ten different sites in the Western States during March. One of the meetings was in Reno, Nevada, On March 15, 1977. The Bureau will receive comments on the proposed regulations until April 22. All statements should be forwarded to the Director (210), Washington, D.C., by this date for consideration before the final regulations are issued.

The use of helicopters will allow the removal of excess animals at a reasonable cost and, in accordance with specific regulations prescribed by the Secretary, provide a more humane method of capture than present conventional methods. The average cost of capturing, removing and assigning an excess animal is approximately \$300 to \$350. Approximately \$100 of this total cost is required to feed and care for the animal after capture and prior to assignment.

The National Advisory Board for Wild Free-Roaming Horses and Burros has not been reappointed for 1977. The Administration, in an attempt to lower Federal expenditures, is reviewing all advisory committees. This board has served as a joint advisory board for both the Forest Service and BLM since its inception in 1973.

The Secretary of the Interior, through the Bureau of Land Management, will continue to protect, manage and control wild free-roaming horses and burros as an integral part of the natural system of the public lands. The Secretary and the BLM must continue to stress the need for the proposed amendment to the law to insure a more effective and practical way to control wild horses and burros on the public lands. The BLM will continue to use the private maintenance program for the purpose of disposing of excess animals.

Destruction in a humane manner in the field is objectionable to many people but, if a better way to dispose of excess animals is not found in the near future, this type of control may be the only alternative remaining to protect the vegetative resources of the ranges inhabited by wild horses and burros.

FOREST SERVICE POLICY AND MANAGEMENT PROGRAMS REGARDING WILD HORSES AND BURROS ON NATIONAL FOREST SYSTEM LANDS

Don D. Seaman*

It is the policy of the Forest Service to recognize wild horses and burros as part of the natural system on National Forest System lands. When the Wild Free-Roaming Horse and Burro Act was enacted in 1971, wild horses were roaming on limited areas of the National Forests of the western United States. To a lesser extent, some wild burros were also making their home on National Forest lands. When the Act became law, the Forest Service immediately initiated management programs to recognize and protect these animals. We are continuing to do so today.

One of our first jobs was to determine what part of the National Forest System was home for wild free-roaming horses and burros. This task could not be done right away because the animals occupied different areas over the period of a year. Our field people observed the animals and, (1) determined just which animals were wild and free-roaming, (2) settled claims for animals by individuals (we still have a few unsettled claims on National Forest System lands six years after the Act became law), and (3) established habitat for wild free-roaming horses and burros.

The territorial limits of the animals were mapped and the areas where the animals made their home became established wild horse and/or burro territory. There are approximately 54 such territories in the National Forest System. With this accomplished, we moved forward with management programs which recognized the animals and assured they would remain as part of the natural system, as directed by the Act.

In some, if not the majority, of the cases, wild horses and burros found on National Forest System lands move to other private or publicly owned lands during part of the year, usually BLM lands. We work with the owners or managers of these lands to determine animal movements and animal status, and to develop management programs.

Now, I would like to describe the situation we found ourselves in when the Act was signed into law on December 15, 1971. Then, I will compare that situation to what we have today.

First, let me point out that inventories made during our earlier experience with the Act were not very good. We believe the current inventory figures have a high degree of reliability; but, understand that errors can be made when you are dealing with wild free-roaming animals ranging over vast areas of rough terrain. Exact numbers are not all-important. The important consideration is assuring that the habitat is satisfactory for the animals and that management programs give the protection the law intended.

In 1971				
State	No. of Territories	No. of Horses	No. of Burros	No. of Claimed Animals
Arizona	4	30	30	-
California	19	517	206	69
Colorado	None	-	-	-
Idaho	3	48	-	4
Montana	2	5	-	-
New Mexico	11	220	10	3
Nevada	17	875	14	12
Oregon	2	150	-	20
Utah	7	64	1	-
Wyoming	2	130	-	10
Total:	67	2,039	261	108

January 1, 1976				
State	No. of Territories	No. of Horses	No. of Burros	No. of Claimed Animals
Arizona	3	5	24	-
California	15	1,037	252	-
Colorado	None	-	-	-
Idaho	3	5	5	-
Montana	1	9	-	-
New Mexico	8	279	15	-
Nevada	18	1,305	15	10
Oregon	2	295	-	40
Utah	3	90	-	-
Wyoming	1	-	-	-
Total:	54	3,025	311	50

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For the National Forest System, we have developed a land management planning process. In the process, National Forest System lands are divided into planning units. Then, using the best resource inventory information available, we determine the capability of the land to produce resources and the socioeconomic factors of the area. Using this information, interdisciplinary teams array alternative mixes of uses and activities which will be compatible with the capabilities of the land and established management direction for that particular unit. We also expect the teams to recommend the best combination of uses.

These alternatives are reviewed by the interested public through the process outlined in the National Environmental Policy Act (NEPA). Draft Environmental Statements are prepared, public comment is considered, and final use alternatives are selected by the Forest Service.

This is the process we use to allocate all the resources of the National Forest System. If the existing management situation must be changed, the allocations can be reviewed and adjusted as needed. Public involvement is invited and public input is considered throughout the process.

Three criteria are considered for allocating part of the available resources to wild horses and burros: (1) does the planning unit contain established territorial area, (2) does it include the habitat requirement of these animals, and (3) what are the other commitments of the land? Consideration must be given to other commitments of the land, such as forage for big game animals and permitted domestic livestock. The need for a protective cover of vegetation must also be included to insure that the soil resource is protected and maintained in satisfactory condition. If we do not protect the basic soil resource, the capability of the land to produce resources will deteriorate.

Once the allocation is made, the District Ranger begins to develop a Territory Management Plan. There should, and will, be a Territory Management Plan for each wild horse and burro territory in the National Forest System. Some of these plans are complete, are approved, and are being implemented.

Where the land management planning job is not completed, the Territory Management Plan will be delayed or will be used as an interim plan. Then, once the resource allocation has been accomplished, plans will be revised as needed to meet the allocations.

For those territories where a part of the habitat is on lands other than the National Forest System, the Ranger must work with the owners or managers to establish a coordinated plan for the entire habitat of the horses and burros. This could cause some delays in gaining approval of a Territory Management Plan.

I will not go into the details of Territory Management planning. Ranger Garth Baxter is going to talk about development of a plan on his Ranger District of the Humboldt National Forest.

But, before that, I will report on implementation of one plan to show you how it is being carried out. The plan for Murderers Creek Territory on the Malheur National Forest in Oregon is functioning. Wild horses are being managed on this territory. They are part of the natural system, and are being retained as a healthy, viable herd. In 1971, there were 120 horses estimated to be on this territory, which covers about 143,000 acres of National Forest System and public land managed by the Bureau of Land Management. The allocation process resulted in sufficient habitat to provide forage for 100 horses year-round. By January 1, 1976, the horses had increased to an estimated 210. A removal program was carried out in early 1976. Actually, 140 horses were captured and removed from the range. Homes were found for 115 of them. However, several horses had to be boarded at several homes before we found a good combination of adoptive parents for the horses. You will note that removals were made to a level somewhat lower than the management number, which is 100. This means that further removals will not be necessary for several years. When numbers reach approximately 130 head, other removal programs will be carried out, probably every 4 to 5 years.

This year, we will have removal programs in Oregon, California, New Mexico, and, perhaps, here in Nevada.

As you can see, wild horses and burros are recognized as part of the natural order of things in managing the National Forest System. It is the policy of the Forest Service to recognize and manage the territories where the animals are established as part of the overall management program of these lands. We feel that our approach of integrating all resources and uses through the vehicle of land management plans provides the systematic balance and protection that will keep wild horses and burros a part of the old West.

DEVELOPMENTS IN WILD HORSE MANAGEMENT ON THE MONTE CRISTO WILD HORSE TERRITORY

Garth Baxter*

MONTE CRISTO WILD HORSE MANAGEMENT PLAN

A joint management plan proposed by the White Pine Ranger District of the Humboldt National Forest and the Egan Resource Area of the Ely BLM District has been prepared for the Monte Cristo Wild Horse Area. The plan provides for the management, protection and control of the Wild & Free Roaming Horses.

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The Monte Cristo Area is located approximately 30 air miles west of Ely, Nevada.

Before the management plan was prepared, the following basic resource data was obtained on the area:

Vegetative Types.

Condition and Trend of the range resource.

Description of the soils.

Status of all grazing animals in the area including wild horses, livestock and wildlife.

Forage species preference of wild horses.

Grazing impact of each species of animals. This was arrived at by mapping the forage utilization within the area, then determining what portion of the forage was used by livestock, wildlife and wild horses.

The proportionate use by the various species was arrived at by fecal droppings.

The wild horse area was divided into four home ranges and number of horses presently occupying each home range was determined. The proper use of forage species used by the horses was also determined. The possibilities of improving the habitat for wild horses including forage, water and cover was explored. The proper number of horses that should be maintained on the entire area was arrived at by analyzing each home range.

On those home ranges where livestock, wild horses, and wildlife grazing is compatible with the capabilities of the range resource, proper wild horse numbers were set at the current numbers + or - 25%.

On the Bull Creek home range, the present number of horses were making excessive use of the forage even without allowing any forage for livestock and wildlife. On this range, it was found that the horses generally preferred areas separate and away from those preferred by livestock and wildlife. The proper number of wild horses for this range was arrived at by allowing a small amount of the available forage, on the areas preferred by horses, for wildlife and livestock. The rest of the available forage was then made available for wild horses and the desired number of horses arrived at according to proper use of the range. The following formula was used to arrive at the proper number of wild horses.

$$\frac{\text{Actual Percent Forage Utilization}}{\text{Proper Percent Forage Utilization}} = \frac{\text{Actual Number of Horses Using the Area}}{\text{Proper Number of Horses}}$$

Except for the natural concentration areas, wild horse grazing was compatible with livestock and wildlife on the Bull Creek home range.

The following items are studies and development which were done at Monte Cristo and may have application to other areas.

1. *Census by use of Time-Lapse Camera:*

To reduce the cost and difficulty involved in obtaining a helicopter for aerial counts of horses, a census technique using a time-lapse camera was employed. It was found that relatively accurate counts (within 5% of helicopter counts) could be made by use of this technique. For this technique to work, animals must regularly use localized watering spots and must water during the daylight hours. They could also be counted if they regularly passed along a certain spot such as a major trail.

Advantages of this technique are:

Low Cost: 5-6 days of inventory data for \$4.85 for color film and \$3.00 processing. (Black & white film is about ½ price.)

Picture record and description of each animal. This is useful to maintain an accountability of each horse from year to year.

Record of colt crops.

Ability to inventory in areas where trees make aerial counts unreliable.

Record of condition of animals.

Basic information on herd characteristics such as band size and composition, where they water, time of day and frequency of watering, etc.

Other related information can be obtained such as wildlife and livestock use in the area.

Recommended equipment includes a regular 8mm movie camera capable of time-lapse photography (Minolta Auto Pack-8 D-4 or comparable cost \$140.00). Intervalometer (Minolta Model P or comparable cost \$60.00). Photo Cell \$15.00. Tripod \$30.00. The total cost for the unit at 1974 prices is \$245.00 plus film. The purpose for the intervalometer is to regulate the intervals at which pictures are taken. We took pictures at one minute intervals which gave us 2-3 pictures of the horses each time they came to water. The purpose of the photo cell is to stop the camera at night, thus save film. Without a photo cell attachment, a roll of color film lasts only 3 days. There is no known commercial source for the photo cell attachment. Ours was made by Gary Swihart in Las Vegas. The wiring diagram for the photo cell Swihart developed is attached. It could be put together by most electronic technicians. Recommended film is EKTACHROME 160, Type A. Black and white film may be used. It costs less and has more feet of film per cartridge, but does not provide as good a description of the animals.

2. *Inducing Sterility in Harem Stallions:*

In order to attempt to control horse numbers in the most economical and humane manner, the possibility of controlling reproduction by sterilizing the Harem Stallion in being explored.

One method of inducing sterility which appears especially promising is the injection of a sclerosing agent into the epididymides which is located immediately below the testicle. This chemical agent prevents the passage of spermatozoa from the epididymides to the Vas deferentia, causing the ejaculate to be azoospermic (without life). This method has been developed by Dr. M. H. Pineda, of Colorado State University. He has used this method with dogs and found it to be very effective with no undesirable side effects. A solution of 1.5% Chlorohexidine gluconate in 50% DMSO is a sclerosing agent developed by the Fort Dodge Laboratories which works very well. This is a very simple procedure which in effect causes a chemical vasectomy of the stallion.

Another method which shows some promise is surgically removing a section of the Vas deferens. This is the procedure commonly used for vasectomies in man. It is very effective, but much more difficult to perform than the sclerosing system.

Another system which is fairly simple in horses is dissecting or removing a portion of the epididymides. Systems similar to these have been used successfully with "teaser or marking bulls" in artificial breeding programs.

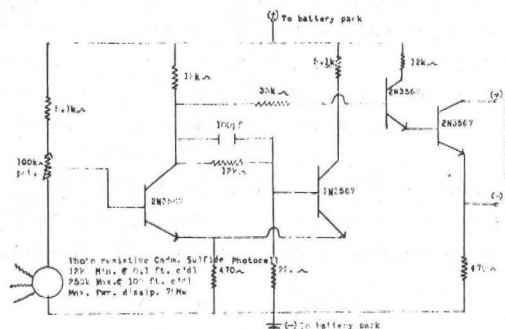
Dr. Earl Drake (D.V.M.) of the University of Nevada has been providing technical assistance on various methods of sterilization.

It is necessary to immobilize the horse with a drug while performing these operations.

Although there are several possibilities for inducing sterility in stallions, the big question is whether the stallion will still maintain his harem and to what extent the reproduction will continue due to the influence of outside stallions. In order to determine this, several stallions are being treated in the Monte Cristo area and their behavior and the reproduction of their harems observed.

Until at least one year's observations of treated stallions is completed, it would be premature to recommend this treatment for population control.

Figure 1. A schematic diagram of photocell switch developed by Gary Swihart.



REMOVAL AND DISPOSITION PROGRAM OF WILD HORSES IN THE BURNS DISTRICT

Christian Vosler*

I have been given an impossible task for this meeting. I have been asked to give a short report on the removal and disposition of wild horses in the Burns District, which I could talk for hours on without even preparing notes.

The Burns District has been involved in the management of wild horses since 1972 right after the passage of the Wild Horse and Burro Act. I would like to *emphasize* BLM is in the horse *management business*, and that we will be in the horse management business for a long time to come. This is dictated by law, a law that I basically agree with. Of course, there are problems with the law like many others, but these problems can be worked out and hopefully this forum will be the vehicle by which some of these problems can be solved. The Burns District started inventorying wild horses by fixed wing in January 1972. This inventory has been carried out each year since. Beginning in 1974 we have used helicopters for our inventory work and have found the counts to be much more accurate. We count the animals during the same time period each year and calculate our increase based upon the difference between our previous year's count so that birth rate and death loss are taken care of and we don't get into the process of trying to determine how many colts were born, how many died, how many old animals died and so forth.

We developed one of the first management plans outside of the Pryor Mountain wild horse range in the Bureau. This was the East Kiger allotment where in 1974 we had a herd of 94 animals; we removed all but 21 in October of that year. As of last week the herd had increased to 34 animals and our plan calls for reducing the herd to 20 animals, letting it build up to 30 and then reducing it back to 20. You can see we need to be gathering animals in there this year, prior to colt drop.

In 1976 we gathered horses off of Smyth Creek and Riddle Mountain. At Smyth Creek we removed 91 animals leaving a herd of 41. On Riddle Mountain we removed 198 leaving a present herd as of January, of 88. In each of these areas there was livestock removed because of the over-grazed conditions of the range caused by too many wild-life, wild horses and livestock.

Based upon our experience we would estimate these herds will have to be reduced about every three years to keep them in line with our management plans. We have one area in the Burns District where we have over 998 animals and our management plan calls for a herd of 300. The plans call for this herd to be reduced to 200, when it increases to 400 it would be reduced back. Last year we had a 30 percent reduction in livestock use. This year there will be a 50 percent reduction and if the moisture conditions do not change it may go even to 100 percent. I expect to be in court on this reduction.

The disposal program in the Burns District, again is one of the first in the Bureau. All horses gathered in Oregon are brought to the Burns holding facilities and the Adopt-A-Horse Program is handled from here. In the initial gathering we had a few old studs we could not find homes for, but this trend has changed. We have found it easier to give away the older studs and it has become increasingly hard to place mares. We have processed over 1,300 head of horses through the Burns facilities and are in the process of handling another 285 head of animals plus this spring's colts. We have experienced about a 10 percent success in those people who apply to adopt horses; one out of every 10 people will actually pick up a horse when they are given the opportunity. There are a number of people east of the Mississippi and a number of people in southern California who would take these animals if they did not have to travel so far to pick them up. So it becomes increasingly difficult for us to find homes for these animals. Also, all of the States besides Oregon, California and Nevada require a health certificate for these animals to be moved across the state line. Like in any area where horses are concentrated we do have disease problems such as rhinoneumonitis, influenza and distemper. We vaccinate these animals when they first come in and treat them so that they can be adopted. Also, these animals going out of Oregon, California or Nevada are required to have a Coggins test for equine infectious anemia, which is a blood test that requires approximately a week to get the results back. There is a \$17.00 fee associated with this blood test that we have asked the people adopting to pay. We have reduced the cost of gathering animals since that first gathering, but we have also increased the cost of caring for these animals once they are in our holding facilities, primarily for health reasons. Because those people who are close have taken the animals they want and as people interested in horses get further away from Burns, the problem is greater and the time period becomes longer.

The removal and disposition of wild horses in BLM is a full-time job, which requires knowledge of wild horses, of people and of vegetative resources. The hours are long, the pay isn't too bad, the dangers are great, but the job is rewarding if you are interested in the protection of wild and free roaming horses and burros.

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HORSES ON INDIAN RESERVATIONS

Charles Fisher*

In the days of old, the horse was a status symbol to the Indian. The more horses he owned, the greater his stature among tribal members. This inbred love for horses and the desire to own horses has carried over to the present day with the result that there are far more horses on most reservations than are needed for operations.

Approximately 70 Indian reservations in the 11 western states have horse problems. A questionnaire was sent to these reservations and, to date, 32 have responded with some surprising results. There are in excess of 46,000 unbranded horses and some 30,000 branded horses on these reservations for a total of approximately 76,000 head.

In the Gardnerville area, the Wild Horse Law created a peculiar situation for the Indians. They own scattered 160-acre allotments in the Pinenut Range, south and east of Carson City. When the tractor came into the picture, the ranchers turned their horses into the Pinenut Hills thinking if the tractor didn't work out they could gather their horses. Well, the tractor stayed on the ranch and the horses stayed in the Pinenuts and became wild. Later the ranchers decided to give the horses to the Indians. The Indians in the area then began rounding up the horses and selling them for supplemental income. Along came the Wild Horse Act with drastic results to their economic venture as they can no longer chase the wild horses.

For the most part, the only way the Wild Horse Bill has affected the Indians on Reservations is to ruin the market for their unbranded horses. For example, at the present time at auctions in the area, horses are selling for ten to twenty cents per pound. When the Indians bring in unbranded horses, the price goes down to 4 or 5 cents which does not make the round-up of wild horses on the reservation too profitable. Result, the horse population multiplies faster than forage is produced, causing deterioration of the range.

CURRENT MANAGEMENT PROGRAMS - STATE DEPARTMENT OF AGRICULTURE

Jack N. Armstrong, D.V.M.**

The Nevada State Department of Agriculture cooperates with the Bureau of Land Management's wild horse management program in three areas of activity. These areas consist of equine disease surveys, veterinary consultation, and brand inspection.

A representative number of wild horses from initial gathering operations are tested for evidence of several equine diseases. This is done through a formal cooperative agreement between the Nevada State Department of Agriculture and the Bureau of Land Management. An agreement is developed for each new geographical roundup location. The tests conducted far exceed required health qualification testing necessary for interstate movement of horses. Through such equine disease surveys, a health status profile is established for the wild horse population of various habitats within Nevada. The medical information obtained gives basic data on herd health. Results of such health status surveys provide meaningful information relative to the management and movement of wild horses. Extensive testing of representative wild horse populations gives reasonable assurance that through the "Adopt-A-Horse" program there is no dissemination of significant equine disease that in turn would constitute a hazard for our nation-wide domestic horse industry. Evaluation of exposure to fourteen different equine diseases is done by laboratory test and visual examination. Among the diseases examined for are: Dourine; Glanders; Piroplasmiasis (*B. caballi* and *B. equi*); Equine Infectious Anemia; Eastern, Western, and Venequelan Equine Encephalomyelitis; Brucellosis; Leptospirosis; Equine Viral Arteritis; Equine Viral Rhinopneumonitis Equine Influenza (A1 and A2); Ectoparasites; and Endoparasites. Through mutual agreement, the Bureau of Land Management will not release any animals for interstate movement until health survey results are known.

Consultation is provided by veterinarians on the professional staff of the Nevada State Department of Agriculture in matters relating to animal health questions, state-federal health requirements and regulations governing interstate movement of livestock, and general husbandry of captured wild horses. Private veterinarians in the immediate area of gathering activity and holding corral facilities are contacted by Bureau of Land Management officials to assure that medical assistance will be provided wild horses if the need arises and to conduct necessary examinations and collect the proper specimens to qualify the individual adopted wild horse for importation into the state of destination. By means of two-way radio systems and telephone service, the Nevada holding corral site near Pyramid Lake, Washoe County is in direct and open communication with Bureau of Land Management offices and the professional veterinary community.

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Brand inspection, to establish private ownership or absent claim of ownership, of all horses gathered by the Bureau of Land Management from lands under its administration is conducted within three days of notification to the Nevada State Department of Agriculture. Those horses determined to be unbranded and unclaimed are eligible to be received by private individuals under the "Adopt-A-Horse" program. Horses determined to be branded in accordance with State law are released to the Nevada State Department of Agriculture for disposition pursuant to State law. Brand inspection is made of all adopted horses and a brand certificate issued for legal transportation across brand districts in Nevada and for interstate movement.

Among the western states, the State of Nevada and the Bureau of Land Management have singular mutual concern for the health and well being of wild horses by people officially responsible for gathering, holding, and management of these animals.

The Nevada State Department of Agriculture responds to requests for assistance from the Bureau of Land Management in matters relating to wild horse management to the fullest extent possible under Nevada State laws.

CHAPTER III - ANIMAL PROTECTION ORGANIZATIONS
MODERATOR'S INTRODUCTORY REMARKS
Tina Nappe*

We are most fortunate to have the five key organizations with us today which have expressed the most interest and probably exerted the most influence on national wild horse policy.

Because no other part of this forum will discuss the humane or protectionist or wild horse groups as a whole, I should point out that other wild horse and burro focused groups do exist, some of them perhaps more regional or specialized than those with us today.

Also if you have watched television you may have seen public service spots developed by Friends of Animals and maybe the Fund for Animals which are examples of other national humane organizations. While some of these other humane groups do not cover wild horse issues as a primary aspect of their program they have at times been active on issues affecting wild horses and thereby help to influence policy.

We often hear the statement in Nevada that people who care about wild horses are easterners who live in cities and don't know anything about wild horses or the problems and conditions here in the west.

Therefore, I was somewhat surprised to note that three of five organizations are located here in the west and that the two eastern based organizations rely on staff or volunteers in the west for information. The only representative here today with an eastern address, Mr. Franz Dantzler, has spent some years working in the western states.

Interest in the wild horse has brought organizations concerned with domestic animals and wildlife together and thereby vastly extended interest in the public lands. While this co-joining of domestic and wildlife animals appears fairly recent, many of the founders of conservation and humane organizations over 100 years ago were instrumental in starting both types of organizations. They recognize a need for help existed for all animals.

I have asked each participant to limit his remarks to 7 minutes and have left the subject matter up to them.

Following their presentations we will have about ten minutes for panelists to respond or add to the other's presentations.

We will then invite questions from the audience.

STATEMENT OF THE HUMANE SOCIETY FOR THE UNITED STATES CONCERNING WILD HORSES:
THEIR MANAGEMENT, CURRENT PROBLEMS AND STATEMENT OF POLICY
F. L. Dantzler**

The Humane Society of the United States is a national non-profit organization formed in 1954 for the prevention of fear, pain and suffering among all animals. Since its formation, the HSUS has grown into the largest animal welfare organization in the United States. In addition to its national headquarters in Washington, D.C., the Society has several regional offices and area representatives in major population centers throughout the U.S. As in the case of other animals species, the HSUS has formulated a policy, approved by its Board of Directors, which reflects the majority opinion of our membership concerning wild horses and burros.

"It is the policy of the Humane Society of the United States to work to protect the remaining herds of western wild horses and burros from cruel exploitation and extinction and use its influence to ensure existing protective legislation is properly enforced and administered so that those concerned solely with exploiting these animals for profit, and those with conflicting interests, will not succeed in destroying these animals."

"Further, the HSUS will continue to oppose attempts to weaken current laws that protect these animals and will oppose vigorously use of improper methods of capturing and managing wild horses and burros."

Since the passage of the Wild Horse and Burro Act in 1971, several management decisions and policies have caused great concern to many of our members. It is our belief that the Bureau of Land Management, the agency responsible for enforcement and administration of the act, has in many cases, been 'over-managing' horse and burro populations in a concerted effort to keep the numbers of animals at, or just above minimum accepted levels. While we realize BLM is subject to intense pressure from cattle and ranching interests, and also wants to keep operational costs down, we believe the agency has failed to adequately respond to the intent of the law on a number of occasions. In our judgment, this has been, and is currently, reflected by the agency's desire to conduct roundups of animals without developing and demonstrating sufficient data to justify reductions in animal populations. Further, we maintain that responsible precautions to prevent injury and death to animals destined to be rounded-up have not always been a part of BLM management policies.

*Sierra Club, 3340 Berthoud, Reno, Nevada

**Director of Field Services, Humane Society of the United States, 2100 L St. N.W., Washington, D.C.

Last September, as a result of a suit in which The HSUS was a co-plaintiff, the court upheld our contention that these were issues in which BLM was negligent.

We are deeply concerned that the introduction of helicopters for use in round-ups will compound the existing deficiencies by adding still another element subject to abuse by irresponsible personnel. The real problem with mechanized methods lies in the re-introduction of practice so brutal and inhumane it drove the animals to the brink of extinction only a few years ago. Relaxation in the attitudes and practices in use of these methods, no matter how well intended or designed, may very well be the first step toward additional deterioration of the law that now gives animals some degree of protection.

While we are not in opposition to the adopt-a-horse program, we do believe that too often, applicants are approved despite the fact they are not properly equipped or possess enough knowledge of equines to provide a good home for them. This has been clearly shown by the number of complaints received, and in some cases, the necessity of BLM to reclaim animals from adoptors because of gross neglect. In our judgment, potential 'adoptors' should be screened more carefully and a follow-up program initiated that will, as much as possible, assure that animals being adopted will receive accepted standards of humane care.

It was hoped with the passage of the Wild Horse and Burro Act that local, special interest influence would be reduced in the management of these species. It is quite clear however, that cattle and ranching interests continue to dominate management practices on public lands with a control completely disproportionate to their numbers and economic effect. Hopefully, federal management agencies will rectify past attitudes and biases and manage these species in a manner that reflects the spirit and intent the law was designed to accomplish.

**PRESENTATION BY INTERNATIONAL SOCIETY FOR THE PROTECTION
OF MUSTANGS AND BURROS AND WILD HORSE ORGANIZED ASSISTANCE**
Yvonne Fisher*

As a public interest in its own land began to develop, so did the outrage as to the fate of the wild horses and burros. It became increasingly apparent that a management control, and protection program be established. This entire humane movement was first aroused by the appalling cruelty being carried out in the capture of wild horses by airplanes and mechanized vehicles. . . the ruthlessness. . . the indiscriminate methods of the 1940's and 1950's.

The primary reason for the federal legislation for the protection of mustangs and burros was the weak or non-existent state legislation. Influential and vocal opposition came from those with commercial interests upon the public land. Those same parties within the State were also influential in deterring state legislation.

Massive support at the hearings of the Wild Horse and Burro Law, was registered by humane organizations, conservation groups, and individuals. Quotes from some of these are: from the Nevada State Horsemen's Association, "Throughout much of the West, according to authoritative sources, our wild horses and burros are being molested by motorized equipment, as well as other means. This includes chasing, capture, and destruction of these free roaming creatures. With a sound management and protection plan, we are sure that there will be benefit for all, and preservation of the West's wild mustangs and burros."

Senator Baring, "Our current effort to provide statutory protection for the remaining wild horses and burros on the public land has received support from all over the country. The Public Land Law Review Commission. . . recognized that non-game animals have a proper place as part of nature's system that existed and continues to exist on public lands."

The following are the closing paragraphs from the statement of Sierra Club presented by Lloyd Tupling, Washington representative, "The wild horse is the target of thoughtless and selfish rangemen, sportsmen, and government officials. He is considered destructive of the environment, competition for domestic livestock, and usurper of wildlands at the expense of game animals. The wild free-roaming horse is none of these things.

The public lands where the wild horses roam are property of all the people. There is no justification for the destruction of wild species to benefit a few ranchers.

The wild horse evolved on this continent and displaced no other species. He is entitled to legal protection as are the exotic game animals which have been imported into this country for the benefit of the sportsman.

New Mexico imported and released the barbary sheep from Africa. Now the barbary sheep competes with the native American bighorn sheep and there is serious question about the bighorn's survival. Such exotic imports are well documented by George Laycock in his book, THE ALIEN ANIMALS. The wild horse is certainly not an alien.

*WFOA, P. O. Box 555, Reno, Nevada

Protection of wild free-roaming horses as a national heritage species and national esthetic resource is a logical progressive step in the wise management of our wildlife. The establishment of protective ranges will enable the public to view these animals and enable the government to give them the needed protection."

After what seemed like an eternity, the Wild Free-Roaming Horse and Burro Act of 1971 was signed in law. It is not the Utopia for the wild horses and burros that we sought, but it is the best they have ever had, and at long last, they are to be given consideration as a component of the range, along with domestic animals and other wildlife.

Opposition grew when it became apparent to those vested interests on public land, that they had to share the resource with an animal from which they could not profit. Man's encroachment upon horses habitat forced them into density areas. Increased recreational, mineral, energy, and population demands were also taking place. Opposition mounted from the managing agencies responsible for the wild horses and burros. This loss of a commercial product that had cost the operator nothing to produce, and horses, were responsible for drawing attention to the public lands.

Nearly three years went by since the passage of the Act before actual operations were commenced to implement the law. Opposition was noticeable from other sources as well; state agencies that could not harvest the horse and burro to add to the coffers with hunting tags, and environmentalists who wished to protect those wilderness areas into which the horses were being pushed. At the time of the passage of the Act, they were supportive of protection legislation, but instead of working towards a solution, the agencies and protectionists picked up the "scapegoat" routine and came out against the wild horses. Hence, scare headlines of a burgeoning population, world-wide food shortages and the like resulted.

Dispersment of range fees to partial implementation of the Act, general funds that might have previously gone to range improvements, went instead to environmental analysis to evenly distribute the resources. Fences which had previously been whipped up any old place, were suddenly under scrutiny by horse protectionists and wildlife people. What used to be one man's business was now public knowledge.

Inadequate and obsolete data of range surveys were used to obtain grazing capacities of each area. Congress and the agencies failed to recognize the necessity for research to effectively manage the wild horse and burro as an integral part of the ecosystem. A small amount of research, mostly privately financed, has been done. Unlike the extensive research done on agriculture and wildlife, the horse remains remote in this field. Poor inventory procedures prior to 1975 caused the "over population" theory, thereby alarming conservationists. An impressive use of misinformation was used to sidetrack the huge movement of the protectionists. The attention stirred by these claims again took the pressure off the public land users, but only for a short time. "In the past, we have witnessed a lack of concern for wild animals to the point of extinction, and it is imperative that we not let this happen with the animals which now live on our public land." Statement of the Honorable Philip E. Ruppe, State of Michigan.

Statement of Karl Weikel, representing the American National Cattlemen's Association and speaking also for the American National Wool Growers who endorsed the cattlemen's position. "Since the plight of the wild horse and the wild jackass, or burro, first attracted the close attention of the public, the issue has been clouded by controversy, accusations, counteraccusations and recriminations based mostly upon misunderstanding of, and impatience with, past mistakes, abuses, misuses and poor management decisions resulting from mistaken policy and too little factual information. It has been claimed that the western livestock interests sought to extinguish wild horses and burros. It also has been claimed that the preservationists strove to banish domestic livestock from the western federal ranges so that the ranges could be kept exclusively for wild horses and burros. Obviously both claims are wrong. The wish and will to preserve these national heritage species is common to us all. There remains only to find the best and most practical means of its accomplishment."

Those users of the public land and who decree that they do not wish wild horses to be completely removed from public lands, should be able to refuse to continue the protective umbrella that has protected the illegal operator. Illegal removal is ignored; investigations of dead horses shrugged off or dead-ended; and claims to completely emasculate the Wild Horse and Burro Act through amendments are abundant. The Honorable Gilbert Gude, a Representative in Congress from the State of Maryland stated, "They are threatened by persons who shoot the horses for sport and by others who capture them for use in pet food. Such indiscriminate killings are wasteful, inhumane, and for the most part, absolutely unnecessary."

It is popular to blame all the ills of the public land use upon the wild horse, but other than density areas, past abuses cannot be solely contributed to wild horse or burro use exclusively. Certainly, those users of public land are going to state that the improvements, if any, have come in their duration. It is cruel to refuse access of any animal to water, and it is unspeakable to shoot horses legs off to leave them to die, but this is still being done. With these attitudes, humane protection of the horses is a necessity. These attitudes to refuse to recognize the Act also reflects adversely upon the present legitimate, honest tax-paying land users.

Failure of the managing agencies to pursue stronger protective amendments along with the popularly known Organic Act of expediency, is just one more reason to doubt the sincerity in considering aesthetic values.

Two specific points we feel would have been immeasurably beneficial had they been included in the Wild Free-Roaming Horse and Burro Act. (1) Status-Being neither domestic nor wildlife, and in order to avoid confusion and possible revision of existing state wildlife programs and regulations, the following terminology, National Heritage Species, to designate the animals, would take them out of limbo. (2) Prohibiting domestic release - Opponents fiercely objected to that provision on the grounds that it would mean economical disaster to them to have to provide feed during the winter season when their remudas were not in use. Yet oddly enough, many cattle operators had personally asked to have that prohibition included, as they were sick and tired of trespass horses claimed by owners who had turned their domestic ones loose on the range.

The Honorable Philip E. Ruppe, Representative from the State of Michigan said that, "In a time when we, as a nation, are acutely sensitive to protection of our natural environment, it is particularly shocking to find that these animals are being misregarded and misused for the advancement of private profit. From George Lea, Chief, Division of Range, Department of Interior comes the following statement - "Predators and other natural controls helped to keep numbers in balance with their environment. Confinement into restricted areas by the settlement and development of the West has changed the environmental rules for these animals. Without freedom to move away from deteriorating habitat into other areas, natural processes work to the disadvantage for the survival of a thriving population. After a certain point in population, density, confined forage animals can often survive long enough, although in diminishing state of vigor, to destroy a large portion of their vegetative base. Left alone, both plants and animals face severe disasters. Management of wild horses is necessary to their survival. Management is also necessary to achieve and maintain a thriving, natural and ecological balance of their range." Predators can no longer be considered as a tool for natural balance due to the increased prices for their furs and the still in existence, Government eradication programs.

There is still a long way to go, but when the fight has been won, it will have set an all-time endurance record, for it is now entering its third decade. It is possible that in years to come, with man's steady encroachment on wildlife habitat, the only way any animal can be assured of a future will be through confining them on to designated ranges. However, this would destroy the free-roaming concept and produce a zoo-type operation, opposite of preservation in the natural habitat of the animals.

There is a ray of hope that some of the weaknesses may be minimized in a ruling by the Attorney General of the State of Nevada, if his counterpart in other states take the same position. His ruling is that, "State statutes which permit killing, capturing or selling horses or burros are in conflict with and are superseded by Federal Law," and he continues, "the intent of Congress to make this bill superseding is readily apparent."

Individually we are not wiser, or braver, or more formidable than our ancestors. In many ways, less so. But we are more sympathetic and we are more sensitive. Evolutionary change in our individual character has had a great effect upon public opinion. Certain atrocities, certain cruelties, certain injustices and abuses inflicted by man upon animals, are now no longer tolerated by public opinion. Should the future of these animals remain in doubt, the fight will go on.

STATEMENT OF THE ANIMAL PROTECTION INSTITUTE OF AMERICA Susan A. Lock*

The Animal Protection Institute is a national humane organization whose goal is the promotion of a new ethic in humankind's dealings with animals. The Institute is a nonprofit, tax-exempt group supported wholly by the dues and contributions of its 83,000 members.

API addresses itself to more than just the conservation question. We are concerned with eliminating and alleviating fear, pain and suffering for animals. In the language of the conservation controversy today, we are "protectionists."

When it comes to public resources, there is a tendency on the part of user-oriented interests to be baffled by groups like us. We aren't guided by the old evaluation, "What good is it?" We think that sort of appraisal is outdated and believe all animals have a place and a role in the natural system. To borrow a word from the popular vernacular, we're opposed to *human chauvinism*.

There's a tendency to classify people who belong to humane groups as "little old ladies in tennis shoes" or "bleeding hearts." This is an irrational, unfounded simplification.

API is composed of people who believe in the rights of animals. We think the wild horse has as much right to use the land as you and I do. We believe in mutual co-existence. We believe in sharing the earth.

What kind of people are we? API members are fairly young; over 50% are under 40. We are reasonably well-educated; 40% of the people active with API hold college degrees and 7% are currently enrolled in college. We're not

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city slickers, either, a common prejudice often expressed when a humane group enters into a wildlife question. Less than one-third of our members live in cities having a population of over 200,000. More than 70% of our members participate in the outdoors in some way--backpacking, camping, or perhaps photographing wild animals.

I am mentioning these details to break down preconceived ideas about organizations like the Animal Protection Institute. We are, in essence, people who care. And, we want to see our concern extended, through laws and the changing of public attitudes to protect animals. Many of us may never have the opportunity to see a wild horse run free, but our hearts are gladdened by the knowledge that he or she can do so.

When necessary, we will put our feelings about the treatment of animals in writing. Congressmen will tell you, for example, that animal-use issues often receive more mail than any other. Whether the creature is a whale, seal, grizzly bear, wolf, chimpanzee, dog, cat, or wild horse, we're willing to speak out on its behalf. A recent example is API's petition drive asking the governments of Canada and Norway to stop the clubbing of baby seals. Our members collected over 647,000 signatures on the petitions, which we presented to the governments of the two responsible countries.

The Institute's position on wild horses is one of total support of P.L. 92-195, the Wild, Free-Roaming Horse and Burro Protection Act. Wild horses have been present in North America since the 1500's, and we feel they, as the law states, are an integral part of the natural system and should be managed as such.

Because of man's brutal treatment of these animals, P.L. 92-195 contains very restrictive provisions on the disposal of wild horses. We feel these provisions are extremely appropriate and necessary. We are against the commercial exploitation of all wild animals and, until assured the horses are being managed for their benefit and not that of other land users, include the wild horses in this position. At this point, we would oppose any move to once again allow wild horses to be sold for commercial products.

Where it is necessary to reduce the number of wild horses to insure the recovery of the range, we espouse equal treatment for all factions. That is, we think there should be a reduction in grazing permits and a general reduction on use of the land by the public and other special interests as well.

We commend the Bureau of Land Management for instituting the wild horse adoption program, and see this effort as a viable method of continuing public interest in wild horses. We support continuation of this program and have offered our services to the Bureau for follow-up inspections where necessary.

It was with regret that we learned the Organic Act has authorized reinstating the use of helicopters for round-ups. We view this type of pursuit as terrifying to the animals. There is the risk of injury when horses are run through rough terrain, and we feel that foals and older animals could be put through great stress by such a chase. We ask that humane groups be allowed to comment before helicopter roundups are begun on a large scale, and that all considerations be given to humane treatment of the horses.

In closing, I would like to thank the University of Nevada Cooperative Extension Service for allowing all of us to meet at this Forum and discuss our different views on the management of wild horses.

STATEMENT OF THE AMERICAN HUMANE ASSOCIATION Roger Van Teyens*

The American Humane Association had been interested in the wild horses and burros of our western states even before the passage of the 1971 Wild Horse and Burro Protection Act. At this time, I would like to discuss American Humane's current interests in the wild horses and burros as it relates to the herd management, roundup procedures, and the adopt-a-horse program.

American Humane considers itself to be a positive organization in that it tries to work with national organizations, local associations, and individuals to establish lines of communication that will allow us to have direct input into the humane standards that are necessary for the care and treatment of animals.

American Humane considers a positive philosophy more effective in resolving animal-related problems than continuously raising a public outcry against injustices or hurling accusations and walking away without solving the problem or helping the animals.

One of the first areas of concern to American Humane has been the roundup procedures used in gathering wild horses and burros from management areas. In the public's minds, there still remains the picture of the cruel and inhumane roundups that took place before the passage of the Wild Horse and Burro Act.

In recent years, American Humane, through members of its National Council on Animal Protection (NCAP), has participated as observer during roundups in the states of Oregon and California. American Humane developed the National Council on Animal Protection through its member agencies to designate knowledgeable individuals who are willing to utilize their expertise in giving counsel and guidance in various animal-related areas.

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The Council is comprised of experts from the humane movement in the U.S. who have been of valuable service to American Humane in instances where we have not been able to supply regular staff personnel. These individuals have either made on the spot recommendations to prevent injury or mistreatment of animals or have made recommendations on various procedures involving the roundup, corralling, and transporting of the horses and burros.

I recently observed a wild horse gathering in the southeastern section of Oregon where only men on horseback were used in the roundup procedure. It becomes quickly apparent to any observer that during these roundups there is a great amount of stress, exposure and danger not only to the saddle horses, but also to the riders. Almost daily there were some injuries to the saddle horses involved in the actual gathering operation. It was also apparent that special equipment is needed for trap areas, holding corrals, loading chutes, and transportation vehicles.

Vehicles must be designed to insure the safety of the animals and to prevent injury to the horses and burros. Because of the variety of animals involved in the roundups, as far as size, sex, and age, it is apparent there is need to separate some of the animals in the transportation vehicles. There can also be additional problems in handling these animals in a central holding facility if the facility is not properly designed or constructed.

As we all know, the 1971 Act basically states that these animals can either be placed for adoption or humanely destroyed. Their carcasses must be left on the range because they cannot be used in any way for commercial purposes.

It should be realized that not all animals rounded up are suitable for adoption. It has been observed that some of these animals are overly aggressive and can prove to be extremely dangerous to an unskilled or untrained individual trying to work with them. There are also aged animals and sick animals that are in poor condition. In these cases it would be more humane to take that animal's life than to subject it to possible future cruelties.

I believe that both the Bureau of Land Management, and the Forest Service to a lesser extent, will experience problems in the adoption area. Even with a well designed adoption screening program for foster parents, there still exists the possibility that a few horses and burros will not receive the proper care and management that is necessary for their health and well-being.

American Humane realizes that in some instances there will be suspected cases of neglect or cruelty, and it will be necessary to have an investigation to determine if there is actually cruelty or neglect. American Humane is presently publishing a list of humane organizations throughout the U.S. and can refer BLM or the Forest Service to organizations and individuals qualified to do cruelty investigations. I'm sure this will be a great asset to both these agencies since they are limited on time and staff.

American Humane has developed three listings of horse resource personnel who can provide correct information on the care, management, health and possible training of these animals to the new foster parents. We have made these lists available to state and district offices of the Bureau of Land Management for their use. American Humane will be happy to send this list to persons adopting a horse or burro so they can consult a knowledgeable individual if problems develop with the animal.

American Humane, realizing there are presently many problems associated with the use of horses throughout the U.S., in December 1976 established an Equine Advisory Committee. The purpose of this committee is to provide accurate information to American Humane on problems in the areas of horse racing, endurance riding, horse shows, wild horses and burros, and the "backyard horses" which have been drastically increasing in numbers over the last 100 years. The committee is made up of six highly qualified individuals who are experienced horsemen with special knowledge in veterinary medicine, cruelty investigations, endurance riding, rodeo, and horse shows. This committee is another positive step taken by American Humane to provide information and suggestions in problem areas relating to equines.

Currently an area of special interest and concern for American Humane is the proposed use of helicopters in the roundup procedures of wild horses and burros. American Humane recently instructed NCAP members to attend various state hearings on the proposed regulations and to submit the comments of American Humane and the local humane agency concerning the use of helicopters. American Humane commented basically on five areas concerning the proposed rule-making, but its greatest concern was the use of helicopters.

We believe that an authorized officer, or his designated agent, who is experienced in working with wild horses or burros and gathering these animals should be in the helicopter to direct the pilot during the roundup operation. American Humane does not believe as was indicated in the proposed regulations that the authorized officer will be able to observe from the ground all the effects of the use of the helicopter on the well-being of the animals involved.

Because of the wide variance in the terrain where these animals are located, it is extremely important that a knowledgeable person accompany the pilot. He, in conjunction with the authorized officer or other personnel on the ground, can give immediate directions to avoid any unnecessary stress, suffering, or injury to the wild horses or burros.

American Humane is not opposed to the proper use of helicopters but feels it is an extremely important area as there is much controversy presently surrounding their use. American Humane strongly believes that if helicopters are improperly used there will not only be a huge public outcry but immediate legal action.

Just before coming to this meeting, we learned that BLM has been directed by the Carter Administration to justify the need for a National Advisory Committee on Wild Horses and Burros. American Humane believes it is extremely important this committee be continued, not only because of the upcoming roundup procedures but also because of the increasing number of wild horses and burros that will be adopted and the need for constructive ideas to aid in the management and welfare of the wild horses and burros.

American Humane will continue to provide its members with correct and accurate information through its publication of American Humane Magazine. We will continue to provide assistance and constructive criticism to the BLM and the Forest Service in order to assure that the animals involved receive proper management and handling as required by the 1971 Act.

It is extremely important for all humane organizations to work in a positive manner in all areas which they believe directly affect the health and welfare of the wild horses and burros. Only through positive action can we assure the continuance of the wild herds of horses and burros.

STATEMENT OF THE AMERICAN HORSE PROTECTION ASSOCIATION Gail Krandall Snider*

The "role" of the wild horse on the public lands, and "changing concepts" of the wild horse, have been the subject of vigorous debate since the passage of the Wild, Free-Roaming Horses and Burros Act in late 1971. Usually the "role" assigned to the wild horse is that of an exotic nuisance animal of no economic value, which takes up space and consumes forage that would be better utilized by livestock or trophy animals. The "changing concept" of the wild horse has been from nuisance to, in the words of one commentator, a "cancer of the landscape."

Most news releases over the past few years have likened the wild horses of the American West to a vast swarm of warm-blooded locusts threatening to devour every blade of grass west of the Mississippi. Wide publicity has been given to the horses' supposed rapid proliferation, and to charges that burgeoning horse populations are destroying rangelands and wildlife habitat. All this has occurred, apparently, since December 1971.

The truth of the matter, of course, is that the deterioration of western rangelands and declining numbers of game animals began long before 1971. The Bureau of Land Management has recognized and actively attempted to mitigate the results of at least 50 years of overgrazing by livestock only during the past several years. Excessive hunting of animals such as the bighorn sheep, as well as habitat destruction due to human causes, have resulted in declining game populations. The wild horse simply is not the principal cause of the evils it is held responsible for, and any attempt to use those ills as a justification to remove wild horses from the Western public lands is misleading, if not totally dishonest.

The American Horse Protection Association does not want endangered or threatened species to suffer in order to benefit wild horses, and has stated so repeatedly. Nor does AHPA wish to see rangelands irreparably denuded by drought and overgrazing. However, AHPA believes that the administration of the Wild, Free-Roaming Horses and Burros Act has been less than even-handed when dealing with the role played by wild horses in these problems. With dismaying frequency, the wild horse has been made the scapegoat for a variety of range management difficulties, resulting in ever-increasing roundups.

The management policies for the public lands traditionally seem to rank the domestic livestock industry as the most valuable -- by a wide margin -- use to which the public lands may be put. This is reflected by the subsidized rate at which livestock are permitted to graze on leased lands, a rate that does not begin to approach the economic value of the leases or their actual cost in terms of resource renewability. Livestock graze by the millions on federal lands each year, consuming far more forage and water, and trampling many times more acres, than do the comparatively small number of wild horses on those lands. Yet the relative burdens of these uses are rarely measured.

In a head-to-head confrontation between wild horse and steer when resources are inadequate, the wild horse always loses. Typically, the environmental assessments for roundups in areas of cattle-horse competition set for only one alternative to removing the horses: removing all the cattle. This option, of course, is never justifiable. Coordinate reduction of all uses in relation to their relative burdens is rarely, if ever, considered. The result is a rigged analysis: a predetermined solution is justified by manipulating the options considered.

AHPA has successfully challenged this practice in court and will continue to do so. It is patently arbitrary and capricious, and flies in the face of the requirements of the Wild Horse Act and the National Environmental Policy Act.

In some instances, roundups of wild horses are justified on the grounds that wild horses are a threat to "native wildlife," supposedly because the horses compete with wildlife for food or habitat. Usually, however, the degree of

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dietary overlap between horses and other large ungulates is low. Furthermore, relatively little is known concerning the behavioral patterns of the competing animals, and the degree to which coexistence is possible. (This assumes that horses and other ungulates prefer to inhabit the same territory - a tenuous presumption in most cases.) As stated above, AHPA does not intend to see endangered or threatened wildlife species sacrificed to benefit wild horses. However, it does not want unsubstantiated claims of conflict to serve as a convenient excuse for wild horse roundups. Nor does AHPA want the alternatives to roundup limited to an "either/or" debate when non-endangered species are in verifiable conflict with wild horses.

Finally, roundups have been justified on the grounds that horse populations have increased so rapidly that a given horse range cannot support the number of horses now inhabiting it. The roundup is said to be "for the horses' own good." Similarly, AHPA has heard that sterilization of stallions is being considered to limit population growth.

AHPA has never given much credence to the extravagant rates of population growth attributed to wild horses. At least one scientific study in Nevada concluded that populations were increasing at only about one-half the rate claimed. Frequently, estimated growth rates have not taken foal mortality into account. Nor do they normally reflect natural variances due to climatic conditions. And, although it is true that wild horse populations rose after 1971, the publicly released figures of recent years seem to suggest that growth rates are slowing and populations stabilizing.

Whatever the growth may have been, however, AHPA does not support the theory that wild horses should be cushioned from the cyclical population trends to which all wild animals are subject. The Wild Horse Act mandates that management of horses be at a minimal level, and AHPA wholeheartedly supports that command. Absent special circumstances, wild horses should be permitted to experience whatever natural processes that population, weather and habitat result in. To do otherwise would be to engage in the sort of intensive management that reduces wild horses to little more than zoo animals. Congress did not intend that result.

Finally, AHPA has continually protested the inhumane nature of most wild horse roundups. The methods of gathering horses -- now made even more cruel by the proposed use of helicopters -- often seem designed to maim or kill. Veterinarians rarely are present at roundup sites on a full-time basis to treat injured horses or humanely destroy those that are injured beyond hope of recovery.

The role of the wild horse on the public lands has, in the final analysis, been mandated by Congress. Wild horses are not nuisance animals; they are a part of America's frontier heritage and must be recognized as such. AHPA believes that the Wild Horse Act gives the animals a preferred status in the multiple-use policy for the public lands. But the administration of the Act shows that government, livestock operators, hunters and "range management specialists" have failed even to afford wild horses consideration as a use of equal importance.

This is the real issue in the whole wild horse controversy, and it is part of a larger debate: whether federal lands are to be administered for the benefit of narrow commercial interests, or for the public at large to enjoy, among other resources, a national heritage protected by Congress. The Bureau of Land Management can do more to protect wild horses. AHPA intends to see that it does.

CHAPTER IV - AGRICULTURAL ORGANIZATIONS

STATEMENT BY JOHN WEBER, REGIONAL VICE PRESIDENT, AMERICAN NATIONAL CATTLEMEN'S ASSOCIATION Alturas, California

I am representing the American National Cattlemen's Association. As a Regional Vice President, I represent six of the western states, Nevada is one of these states. I also am a permittee on Public Land, running cattle in California and Nevada. I feel that I have a first hand knowledge of the wild horses as one of my allotments has an inventory of over 700 head of horses.

I wish to thank the College of Agriculture, University of Nevada and the Cooperative Extension Service for making possible this national wild horse forum. What we accomplish in the next two days could very well be of great importance to the ecological balance on the public lands and to the environment.

If the gathering of all interests - those who are concerned about the well being of wild horses, those concerned about the multiple use of our public land and, most important, those concerned about the overuse of our public lands - can meet without great emotion and dedicate ourselves to the study of the wild horse population as it relates to other uses of our public lands, then our two days here will be well spent. Hopefully we will be able to reach some common understandings and arrive at some solutions that will be beneficial to the prosperity of our public lands.

First, it would be well to go back and review the enactment of the Wild Horse and Burro Act of December 15, 1971. I was told then by Congressmen that this particular legislation was the hottest thing to hit Washington in a long time. Emotions ran high as the press and television broadcast tales of large scale slaughter of wild horses on western ranges. Legislation passed under these highly emotional conditions is generally not good.

Essentially what this legislation did was to stop the gathering of wild horses and claimed horses from the public lands. The law charged the management of the wild horses and burros to the Bureau of Land Management and the Forest Service. It took away the use of any motorized vehicle for the gathering of horses and burros and prohibited the government from transferring title of ownership of the horses. The Act provided for private horses to be claimed.

How has the management of the wild horses fared under the Act since its enactment over five years ago? I do not have the total figures of the wild horse population on all of the public lands, but I do have figures for the state of Nevada. These are figures that have been compiled by the Bureau of Land Management in Nevada. During the past five years wild horses within Nevada have increased from an estimated 8,000 in 1971 to 30,000 in 1976. This is a yearly increase of 20% under the present management program of the BLM. I cannot believe how anyone can fail to see what the damage will be to our public ranges if this herd is allowed to multiply at its present rate.

The Wild Horse and Burro Act of 1971 nor the recent BLM Organic Act did not intend to take forage away from wildlife and livestock for the total good of the horses. The Organic Act requires that the BLM and Forest Service consider the nation's needs for food and fiber and consider domestic livestock grazing a principle use.

This forum, first, should strongly recommend that immediate emergency steps be taken to reduce the wild horse population at least to the 1971 level. When this is accomplished, the agencies in charge should decide at what level the wild horse numbers should be maintained. On a long term basis this forum should recommend further amendments to the Wild Horse and Burro Act. First, the government should be allowed to transfer ownership of these horses and second, provide for the use of helicopters for gathering of claimed horses. These amendments would greatly assist the agencies in management of wild horses and save the U.S. taxpayer large amounts of money. Further, the agencies should amend their own regulations in the area of claimed horses. Hundreds more of these horses would be claimed if the trespass provision were waived. It should be explained that wild horses range on private lands also. There are vast amounts of intermingled private and public lands in Nevada and wild horses and burros range on both. It seems that the government has some responsibility in keeping their horses off private lands. At the very least, there should be complete cooperation between public and private landowners to encourage and help in removal of claimed horses from public lands. This could more easily be done by permitting the use of the helicopter for gathering claimed horses. The trespass provision in the regulations should be eliminated! Many people who have horses on public land feel the cost would be too great to claim their horses if they have to pay a trespass fee on top of the cost of gathering the horses.

These recommendations that I am submitting to the forum are basically the policy of the American National Cattlemen's Association on the management of wild horses and burros.

**STATEMENT BY NICK THEOS, CHAIRMAN
PUBLIC LAND COUNCIL
Meeker, Colorado**

I have lived in Colorado and Utah all my life and I've been active in the Western Livestock Industry all my life. We have always had wild horses and burros on some ranges since I can remember, so I am very much acquainted with the wild horse and burro situation.

I don't know where the original horses came from but the old timers who herded for dad said there were always a few wild horses around. The Indians would catch some of them, use them a while and turn them loose again. So did some ranchers and this went on until the early 30's. Then the drouth came along plus the depression and ranchers just couldn't afford those extra horses on their places and they turned them out on the federal range.

Well, you know what happened at that point. The domestic horses got together with the wild horses and the herds got bigger and bigger. The big herds created a free commodity for some people and soon there was a market for wild horses. Some went for rodeo stock, some went back for domestic use and some went to the "soap factories." At that time they trapped those horses and even today you can find some old wild horse traps on the ranges. But you know, even though those horses were competing with cattle and sheep ranchers for forage it wasn't so much the ranchers who did the herding and roundups. Once in a while a rancher would encourage some wild horse cowboys to capture and remove some of the horses because the herd had gotten too large to support it and domestic livestock on a particular range. But the ranchers weren't interested in wiping out all the wild horses, just keeping their numbers reasonable and compatible with the amount of forage on the range. If ranchers had wanted to eliminate the wild horse completely, they could have done it long before the Wild Horse Act was made.

Back then, before the Taylor Grazing Act of 1934, many ranchers grazed the federal lands year-round -- large herds of sheep, cattle and wild horses using the same range lands. Then with the Taylor Grazing Act, all stock-use of the rangelands was cut back a bit and so were these wild horse herds.

But you know those wild horses and burros weren't just competing with ranchers. Some game almost disappeared for a while because wild horses were in such numbers that they ate up a lot of forage. It wasn't just the domestic livestock doing that. And you have to remember that up to the ill-conceived Wild Horse Act, all animals were managed on the federal lands. Game animals, like deer which increased dramatically from 1942 through 1950, were harvested through state game department programs. Special hunting seasons were initiated because those deer herds got so out of hand. Back then with that kind of sensible and logical management, there was enough habitat for wild horses, wildlife and domestic livestock. The range lands were improving through these management programs and many areas were being re-seeded, chained and undergoing other improvements, increasing the range carrying capacity for all animals.

Then the Wild and Free-Roaming Horses and Burros Act became law. Now the livestock industry didn't oppose the act completely, we just wanted to see those wild horse herds controlled and managed like other range animals. We had a lot of faith that the wild horse advisory boards would come up with good management practices and methods of control providing the act could be changed just a bit to allow for logical methods. But it seems this has been real hard to get done because it hasn't been done yet. A recommendation was made to control the animals to the 1971 level by BLM and Forest Service Boards but national emotionalism seems more important. You know, it was unfortunate and terrible what happened to some of those wild horse herds before a protection law was passed, but it's even worse what happened to the herds, the range land, and the communities in the West that rely on federal grazing land for their economies since that act became law. And it's costing the Federal Government a whole lot of money that could be put to better use because the management practices in the wild horse act just don't help in really controlling those wild horses.

Did you realize that a wild horse herd averages a 20% increase every year? They're like rabbits the way they increase their numbers. That's about 10,000 head increase per year. Why, Nevada had 22,000 head in 1975, according to BLM's statistics and we guess it's around 30,000 head right today. And what we are allowed to do about that? Well, the Federal Lands and Policy Management Act of 1976, that's the Organic Act, almost had a real good wild horse section to increase management. But it's such an emotional issue in Washington, D.C., according to lots of congressmen that before that land bill was passed, Senator Jackson had managed to have all the good management ideas in the bill killed. What we got was really just the use of helicopters in roundups. But meanwhile the courts in Washington, D.C. are interpreting the Wild Horse Act and saying things like "Minimum Management" (which is the wording in the Wild Horse Act) means no management at all. What's the use of helicopters if the courts keep saying you can't round them up unless you can prove that you shouldn't remove all domestic livestock so there can be more horses.

The Adopt-A-Horse program isn't really solving the problem because you aren't allowed to transfer ownership of the horse to the adoptee. And those roundups cost the taxpayer money to the tune of \$200 per head to round them up and \$100 per head to feed them until you can unload them. Now if you figure that a certain percentage of those horses

end up back on the federal range because the Federal Government owns them no matter who is keeping them and they can't make someone keep the horse. That really adds up to some dollars.

What happened to the multiple use concept we've all heard so much about? Why more and more, it's getting to be single - use, for the wild horses if the horse protection groups get their way and that just doesn't make sense to me. We're trying to improve these lands for everybody and everyone and I can't think of a quicker way to ruin a range than to over run it with wild horses. They make locust swarms look tame lots of time.

Horses are hard on the range. They run in bands. They're not cud chewers. They eat all the time. They paw up as much forage as they eat, and roll and destroy a lot of forage. They'll harvest grass down to the dirt before they move on, and they don't migrate far so they just keep beating one relatively small piece of range. They ruin water holes. You know man is the only one who can really control those horses now because they don't have many natural predators and their numbers are so large even if a band of mountain lions came into a wild horse area they wouldn't even make a dent today.

Many areas in Colorado and other states are so over run by wild horses that they have overgrazed the area to the extent that we ranchers will voluntarily remove our stock because the pressure on the range is too much. Even then, the horses ruin the range so bad the game animals and wildlife have to go elsewhere because there just isn't enough to eat. You know, wild horses despite the supreme court decision that said they are wildlife (Kleppe vs New Mexico), aren't really wildlife. The Western range wasn't made to support these large numbers we have now and we really need to do something quick.

Today we are faced with a possible 13 state drouth. Reserviors are drying up, creeks are dirt or barely running, and the forage may well be quite limited. Especially now those ranges can't support all those unreasonable numbers of wild horses and even with the few goodies in the Organic Act for rounding up horses, A lot more has to be done in allowing us to remove or dispose of excess numbers. We need to be able to transfer title for sure. Why even Moudall got in an argument with Scoop Jackson during the Organic Act conference saying he just couldn't understand why if a horse died or had to be killed you couldn't give the carcass to someone -- but you can't. You just have to leave it there for the coyotes and buzzards creating a health hazard, an unpleasant sight, and very little compost for the ground the carcass is laying on. Just doesn't make sense.

Very few people really have first hand knowledge about wild horses or the destruction they can have on the ranges and environment as a whole. All they can see is that news film of a few years back of that pet food roundup when they drove them off a cliff. Sure something needed to be done about that kind of action, but like Senator Bennett Johnston of Louisiana said during the confirmation hearings for Secretary Andrus, in Louisiana they had alligators up to their you know whats because they were *overprotected*. He said those gators were coming up into people's backyards who lived along those rivers and bayous and eating up pet dogs, pet cats and getting way too close to small children. He said you just have to come up with some good harvest control practices if you're gonna protect an animal -- you can't just let it get out of hand. We're facing the same kind of dilemma with this wild horse problem. If all these uninformed people would get informed about the danger to the environment, these large herds of horses are having to their beloved environment, they might not be so emotional about letting the government transfer title of those horses they capture.

I think it's real important that we get this Wild Horse Act amended. I think it's important to the condition of the range lands, to other species and animals and to the West as a whole. We ranchers don't want to see wild horses wiped off the map in the West -- we like seeing them out on the range too, just like the folks in Boston like knowing those horses are out there even if they've never been out here to see one. But we have to do it right. They have to be brought to carrying capacity. Let's get that Act amended this year so the wild horses and burros don't get a chance to ruin the range. Run off all the other wildlife, and wipe out the domestic livestock industry from the federal lands.

I would like to say, in closing, that the Act should be amended to bring the numbers back to carrying capacity of the range or the 1971 count by roundups with helicopters and transferring title.

STATEMENT BY R. J. (DICK) JENKINS Diamond, Oregon

We are now living during an era of great change in the United States, from the Presidential level down to the local level. If our new President is trying to encourage an all-out effort to lower government spending and keep the truth between big government and the people, we as individuals certainly should put out an effort on our level.

No matter what the cause of issue for which different people and organizations in this country are working or fighting for, it has been the trend in the past to stretch the truth as far as we can and bend facts around to fit our own needs or side of the controversies.

There is no better time or place for the opposite forces of this wild horse issue to sit down and present only the truth and come up with a feasible solution for all concerned than at this forum.

I have been involved in this wild horse situation all of my life, and in the past few years have been one of the unfortunate operators who has been forced off his public range as well as some private property by the ever increasing numbers of wild horses. There is no way to figure exactly how many thousands of dollars I have lost in the past two years because of this situation, but under present cattle price trends as well as the impending drought, the pressure has certainly been felt. I don't mind being one of the first to be made an example of when horse herds are left uncontrolled, if something constructive comes out of it. However, up until now, I have seen quite limited progress being made on the overall wild horse areas towards a feasible solution for either side of the picture.

The wild horse organizations are still blaming the ranchers for overstocking and abusing the range, and in some cases blaming the BLM for not upholding the law in the proper order. On the other side, the ranchers are blaming the BLM for kicking them off the public lands and blaming the wild horse groups for pushing right behind.

I think that both sides of the issue have to admit that the present law and manner of upholding it are definitely not working and it looks as though it is going to get worse before it gets better. It is much easier to get a law like this in force than it is to change the weak points after it is in effect.

It all comes back to the fact that if all of the truth and facts were known before the law was sent before Congress, a lot of mistakes and hardships could have been avoided. Any time you use impressionable-age school children and mis-informed adults to get a law passed, you are going to have a fallacy no one can live with. I don't mean that the rancher is the only one who cannot live with the present law either. We have practically reached the limit already of available people to foster care for these animals and in some cases, the horses would be better off starving to death on the range than in their present foster homes. In talking with the Burns District of the BLM it is getting harder and harder to find places for these animals and the population is growing in this District alone at an ever increasing rate, say nothing of the other areas that have even more horses than we do.

I really feel that if the wild horse groups would actually come out and see the situation first hand and look at it with an unbiased opinion they would certainly understand that the present law is very much out of reason.

It is now costing the taxpayers anywhere from \$200.00 to, in many cases, as high as \$800.00 per head to gather and give these horses to the public to feed. Multiply that by the hundreds of horses needed to be gathered and it is reaching into the millions of dollars. We complain about our high taxes and excess government spending and turn around and support them with programs such as the wild horse management.

I agree that there were some areas where the horses were mistreated. However, to make the blanket law to cover all of the horse areas of the West is very much beyond reason and unnecessary. I have never known of any of these publicized abuses ever happening in the Burns District, and have been unable to find any of the older people in the area who knew of any. We have always had wild horses and controlled their population in humane manner when the need arose. There never was an effort to completely clear the range of the horses as we like the tradition as much as anyone else. But the law was passed, and caused an excess number of horses in every area in which they existed simply because the overall effect of the law was not considered.

I have received so many letters from people who want to save the wild horse for the future generations. They stated they didn't necessarily want to come and see the horses, but they just wanted to know they were there. This makes about as much sense as if the rancher were to insist that the dog catchers and dog pounds in the cities should be done away with because we like cow dogs and feel you people in the cities should be able to enjoy the dogs also. After all the cow dog is a western tradition, so why shouldn't the urban people be able to enjoy them also. Here again, if these people would come and see the situation first-hand they would certainly have a different outlook; especially if they could see that if the present situation is continued they are going to have a hard time finding beef to feed their families.

To emphasize my point about seeing the situation first hand changing your outlook...Last spring the National Wild Horse Advisory Board was taken on a tour of our area here in the Burns District. I made myself available to these people for a trip up to my area of use on the public range and was very pleased that they were very understanding people and actually were striving towards the same goals that we were. The one comment that I received from so many of them, and I will never forget it, was "I didn't realize there was such a problem and so many horses in such a small area." We took them up to the area by helicopter and it was certainly a graphic example of too many animals in too small of an area, and that if left uncontrolled they would cause their own starvation as well as that of the wildlife and other animals using the area. Consequently, we went to work writing our Congressmen and, through the help of Bob Packwood, were able to get the money appropriated to gather the excess horses and save what range resource we had left. Then last fall the BLM Advisory Board took a tour of the area, and they couldn't believe the drastic improvement in the range of the area. However, the BLM felt they should check even further, and they had the ASCS take soil samples. They also showed a definite improvement, even in the soil. So, you can prevent damage if solutions are arrived at in time.

STATEMENT BY JAMES R. BENNETTS, ATTORNEY AT LAW
Challis, Idaho

My name is Jim Bennetts. I'm an attorney-rancher from Challis, Idaho. Our area in Central Idaho is an area of extreme environmental conflict. For instance, we have anadromous fish, Rocky Mountain Big Horns and wild horses within the same unit. In addition, of course, we have elk, mountain goats, antelope, deer, bear, mountain lions, and numerous other wildlife species. We have extreme recreational pressure and yet we must rely primarily upon our year-around industries to support the local economy.

The problem in our area is one of keeping a fair balance without extinguishing any particular specie or group. Fundamentally, our economy and our tax base are dependent upon cattle. Having been involved in county government in various capacities for a number of years, I think I can support the statement that either directly or indirectly, cattle are primarily responsible for keeping the schools open and the roads passable. Therefore, we recognize a potential for conflict between cattle and wild horses. In my view, however, this problem need not be blown out of proportion in order to arrive at a workable solution. Admittedly, a few cattlemen may want every last horse off the range to the betterment of cattle just like some big game biologists may want every horse off the range in favor of a particular specie of game. Again, some wild horse lovers are obviously in favor of unlimited numbers of wild horses. None of these positions, however, are responsive to the actual needs. We need balance and we need management.

At the present time, the wild horses are the only dwellers on the natural resource lands not being, in some manner, managed, controlled or harvested. Consequently, our herd, numbering approximately 150 head in 1971, has grown to approximately 500 head today. We have a few instant experts who would like to argue with these figures, but unfortunately for them you count horses on the range, not from a lodge in Sun Valley, or the barber shop in Mackay, Idaho. The fact is, the horses are there. Again, at the present time because of their large numbers, they are exerting extreme pressure on the other natural inhabitants, namely Big Horn sheep, elk, deer and antelope. The range now being occupied by horses cannot cope with so many horses and still be productive for the natural big game animals. Something will have to give - and if something isn't done, the deer, elk and Big Horn sheep are going to start doing the giving. I have in support of that view an affidavit from Dr. James Peek, Department Head of the Department of Wildlife Sciences for the University of Idaho. He isn't one of the instant experts earlier referred to... affidavit is based on a 4-year study of this particular area involving manpower in the field on an almost daily basis. I think we should heed his warning and not sacrifice the original wildlife species in favor of unlimited numbers of the more recent comers to the range. Believe me, the conflicts between wildlife and unlimited wild horses is becoming very acute. Tragically, much of the range, if overrun by horses, may be years and years coming back to productivity, even to the detriment of the horses. Those of you who may think that by removing cattle from the range the problem will miraculously be solved are misguided. In our area, the conflicts between game and horses will still be there even after the cattle are gone.

The application of reason and judgment will convince anyone that we cannot afford 500 horses on a 150 head range. Any wild horse supporter must realize that this kind of situation brings about the most inhumane conditions for the horses as well as on the wild life in the short term and prolonged damage to the resource in the long term. We can't afford to be so careless and thoughtless we need management and we need control and we need it now.

Let's look at another factor - economics. Frankly, in my estimation, the wild horse has only an aesthetic value. Under the present situation the wild horse cannot be harvested except at tremendous expense to the taxpayer and once harvested, cannot be marketed in the usual sense. In all likelihood, any wild horse, if used at all, will see only limited use, economically speaking.

Other inhabitants of the range, namely cattle and the major wildlife species, show substantial economic value to the localities and the State. By studies conducted under the supervision of the Agricultural Division of the University of Idaho, we can show that a cow has an economic value computed by applying a multiplier of approximately 1.4 on its market value. In addition, it has an aesthetic value as recognized in the implementation of various of the Recreation Area concepts where continued grazing of cattle on range land is being recognized as being recreationally and aesthetically desirable. Again, wild animals have been shown to have substantial values economically, and the major part of those values have been shown to be connected with the harvest of the animals in contrast with the aesthetic values (Washington Game Dept. Bulletin No. 7. Oliver, W. H., et al 1975). The horse, however, must make its case based upon its aesthetic value alone. I concede that it does have an aesthetic value and, therefore, a place in the scheme of things. However, it also appears to me that as we get more and more horses, the aesthetic value of each individual horse becomes less and less. For example, if the horses become so numerous that they are running around in downtown Reno, they become nuisances and in effect take on a minus value aesthetically speaking. Application of logic dictates control of horse numbers.

Lastly, I'd like to make a point in favor of more reasonable and logical methods of round-up or harvest. To start with, I hope we all favor humane treatment of the horses. Humane treatment necessarily involves control of numbers. I don't think that it follows at all, however, that the present methods of control or disposition of horses

under the Adopt-a-Horse program are all that humane. As a lover of horses I believe the present methods of disposition may be the most inhumane method imaginable. If those procedures can't be justified on the basis of humane treatment, they surely can't be justified on the basis of cost.

Also, it seems to me that by refusing to allow a more liberal use of the Wild Horse and by refusing to permit the animal to be processed or consumed, we are in effect denying it recognition as a valuable resource. In our state, we don't even give our majestic Big Horn Ram such an untouchable status. In fact, a party who harvests a ram in Idaho and who fails to beneficially use the carcass of the animal could be held criminally accountable for malicious waste of a game animal. I do not claim to have all of the answers and some of the answers I do think I have may not be acceptable to the majority in attendance here, but I have lived a good share of my life with wild horses in my back yard. I can summarize my position in a few words. We need to be concerned with Wild and Free Roaming *Starving* Horses, as well as wild and free roaming horses. We need control of numbers and we need to reassess our methods of control from both the position of 1) humane treatment, and 2) practicality.

**STATEMENT BY ROBERT WRIGHT, PRESIDENT
NEVADA CATTLEMEN'S ASSOCIATION
Deeth, Nevada**

I am a life long resident of Nevada and have had much association with the ranges and the wild horses that run on them.

If the wild horses were to be completely removed from the ranges I would be among the first to raise my voice in opposition to it. The wild horse is part of our American heritage and certainly needs to be preserved for future generations.

"These wild horses are fast disappearing from the American scene" states the Wild Horse Act of 1971. That statement is not valid in Nevada. The wild horse in reality is fast appearing on the scene. A systematic count by the land managing agencies in Nevada indicates a herd of some 35,000 head. The amount of forage to sustain a herd of that magnitude for one year is 360,000 AUM's or animal unit months.

There are currently recognized in Nevada 2,971,689 AUM's of public land grazing. This includes use for; active, non-use, lease lands, free use, crossing and trails, exchange of use and wildlife allocations. At the present 20% rate of wild horse increase by 1987 the wild horse numbers will reach about 260,000 head and they will consume 3,120,000 AUM's of forage. This is more than the total forage now available for all uses in Nevada and will eliminate all big game wildlife and domestic livestock forage. This was not the intent nor purpose of Congress, the Wild Horse Act of 1971 or the Federal Land Management and Policy Act of 1976.

These wild horses are far in excess of the numbers that were contemplated by the Wild Horse Act of 1971. They are damaging the ecological balance on the public lands and the environment; they are grazing private lands as well as public lands and they are threatening the severe reduction of domestic livestock in violation of the intent of the Wild Horse Act of 1971 and of the Federal Land Policy and Management Act of 1976.

It was estimated in 1976 by the Nevada BLM that management and removal of the excess horses was going to cost the taxpayers up to the following amounts in Nevada alone:

- (1) Removal costs at \$500.00 per head for 25,000 head = \$12,500,000.00
- (2) Herd management plans for the remaining 10,000 horses not removed (without ranch purchase) \$260.00 per head = \$2,600,000.00
- (3) Annual recurring costs for protection, surveillance, population control, and management per year (10,000 head at \$96.00 per head per year (without ranch purchase) = \$960,200.00

Total \$16,060,200.00

If you increase the removal and management costs 20% per year from 1976 to 1987 it will cost the taxpayers of this nation \$119,000,000.00. The cost benefit ratio cannot be justified.

Controlling the horses has become a major issue. What is humane in one person's thoughts may not be humane to another person.

I have been involved in horse round-ups since I have been big enough to ride. My father owned a herd of 200 horses which were used in ranch work. With the coming of tractors and mechanization most of these horses were then sold.

I have some definite thoughts on humane methods for capturing and controlling wild horses. In my estimation water trapping is the most humane of all. But, water trapping has its limitations. It is not practical in areas where an abundance of water exists. And it is quite a job to build corrals around each water hole to effectively remove animals. The next most humane method is the use of aircraft or helicopters. I feel that much concern over the use of

aircraft or helicopters is unfounded. Prior to the 1959 Act of Congress prohibiting the use of aircraft some harassment of horses was occurring. But it was not by people who were diligently managing the horses. To show how aircraft and helicopters are used I have prepared a drawing of the facilities required (show transparent drawing).

Horses gathered by aircraft come into the corral with little or no abuse. The advantage of this method is that an area for many miles can be gathered and corraled using one facility. I have never seen a horse gathered by aircraft that looked as if it had been harassed. And many of them have been corraled without breaking a sweat.

Wild horses have to be controlled. Through an exchange of ideas and information hopefully a solution can be found.

I appreciate the opportunity to participate in this forum.

**STATEMENT BY ROBERT C. BAUM, PACIFIC REPRESENTATIVE,
NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS
Salem, Oregon**

The position of the National Association of Conservation Districts could be predicted by general statements from our NACD Public Lands Policy. NACD is a national private conservation association, representing nearly 3,000 conservation districts, soil and water conservation districts or resource conservation districts throughout the United States. I want to quote a few paragraphs from our Policy Positions.

"We hold that public lands are held in trust and must be devoted to the highest possible use for the permanent good of all the people, recognizing sustained yield and multiple-use of renewable and non-renewable natural resources as basic principles of public land use and management.

"We believe that non-renewable resources must be harvested in an efficient manner and not in a way to damage renewable resources and esthetic qualities.

"We advocate that each acre of public land, as well as privately owned land interspersed or directly associated with public lands, be treated in accordance with its need for protection against damage under sustained use; and that the management and development of these lands be within their scientifically-determined capabilities for use."

To refer to specific NACD policy on wild horses and burros, I quote as follows: "Federal legislation provides for protection of feral horses and burros on public lands. However, the western rangeland environment may be severely damaged, and domestic and other wild animals endangered, if feral horses and burros are not properly managed and are allowed to increase in population without control. We are also concerned that public land management agencies are not staffed to administer properly the Wild Horse and Burro Act and need to develop expertise in the management of these animals.

"The NACD urges that the public land agencies be staffed and funded to administer adequately the Wild Horse and Burro Act and that numbers of wild horses and burros be strictly controlled at levels that will not adversely affect habitat or grazing conditions for other wildlife or permitted livestock.

"We also believe the Act should be amended: (1) to authorize the Secretaries of the Interior and Agriculture to use aircraft to provide for the protection, management, and control of wild horses and burros, in accordance with acceptable, humane procedures set forth by the Secretaries; and (2) to authorize the Secretaries to sell or donate, without restriction, excess horses or burros to individuals or organizations."

"Additionally, we urge management agencies to promptly prepare and enter into management contracts with selected ranchers in horse and burro areas, as provided in the law, until facilities and expertise to properly handle these horses and burros are developed by research or other means."

There were two wild horse resolutions passed by our national Council at our meeting over 2,000 district leaders in Atlanta, Georgia, February, 1977. Complete texts of these two resolutions are attached to the written statement supplied for this meeting.

Resolution No. 1 came from the Wyoming Association of Conservation Districts, and I quote from that resolution: "The American public has been brainwashed to believe that wild horses are more important than the principles of good range management, the production of food and fiber, and the economic stability of ranch-dependent communities of the western United States.

"The American public has not been advised of the expense involved in the program of wild horse management and thereby lacks a reasonable means of evaluating the program or basis of costs and benefits. It is reasonable to expect that the taxpayers of the United States are willing to accept the expenditure of a certain amount of public funds to protect our heritage - including some wild horses.

"NACD recommends that the Department of the Interior disclose to the Congress of the United States and to the American public:

1. The per head cost of the wild horse program including personnel at all levels of operation, administration, travel, time, per diem, advertisement, round up, and field level management.
2. The source of funds expended since no line item for these expenditures presently exists in the Interior-Bureau budget.
3. The projected cost and proposed budget for wild horse management for fiscal years 1977, 1978, 1979, and 1980 based on the probable increase in numbers of horses, administration, and personnel required for management."

The second resolution came from the state of Idaho and was passed at their Association Conservation Districts' meeting in November of 1976. The Idaho resolution notes that "the Secretary of Agriculture and the Secretary of Interior were given responsibility under Public Law 92-195 to carry out management activities for wild free-roaming horses and burros at a 'minimal feasible level' and 'in consultation with the wildlife agency of the state. . .in order to protect the natural ecological balance of all wildlife species which inhabit such lands, particularly endangered wildlife species."

"The sole consideration for management at the minimal feasible level, according to the law, does not protect the rights of the stockmen, many who have prior rights for grazing use of the lands now being dominated by the growing herds of wild free-roaming horses and burros. For many years, stockmen have depended on the grazing use of these public lands now being given over to the wild horses and burros for their livelihood.

"The wild horse and burro are not necessarily native to the area now given to their habitation, but are only uncontrolled domestic horses without private ownership; nor are they considered to be wildlife in the true sense of the term, and they are not, or should not be, classed as endangered species."

This resolution continues. . . "NACD supports the concept of acceptance of wild free-roaming horses and burros in reasonable population as a part of our western environment. We believe that management, including population control, should continue to be vested in the Secretary of the Interior through the Bureau of Land Management, and the Secretary of Agriculture through the Forest Service, but with joint advisory boards having representation of all local environmental and resource interests.

"We further recommend that:

- (a) Civil actions pertaining to management of wild horses and burros be held in a local court where local permittees may be in attendance with evidence and testimony to offer on their behalf.
- (b) The rights of local users of the public lands for grazing purposes, with the ultimate production of food as a means for livelihood in their behalf, receive consideration equal to other environmental interests and resource needs of the public lands used by the wild horses and burros.
- (c) There should be a 'minimal management program' that conforms with the original intent of the law, not only for the horses and burros, but rather an equitable and just multiple-use program providing due consideration for management of all resources and uses of the land as well."

In summary, the NACD urges that the law be amended to provide greater flexibility in administration. We supported allowing the use of helicopters in gathering wild horses. An amendment is needed to provide for the sale or donation of excess animals. We do not believe that the "adopt a wild horse" program will absorb the number of animals that need to be removed from the public range. We understand that the National Advisory Board for Wild, Free-Roaming Horses and Burros has recommended similar amendments to the Act.

At the meeting of the National Advisory Board for Wild, Free-Roaming Horses and Burros, held at Rock Springs, Wyoming, September 4 and 5, 1975, they recommended (from page 31, item d, of the 1976 Second Report to Congress) ". . .that the Board urge responsible citizen conservation organizations to inform their own members and the public at large concerning the serious and immediate problem of all overuse of natural resources on public lands of the Western United States. This program would be done in cooperation with appropriate state and federal agencies regarding the need for immediate educational programs." I would be interested in how much of this type of education has been done by the organizations who have been expressing such great concern about wild horses and the maintenance of their numbers and range, as well as how much has been done by both the U.S. Forest Service and the Bureau of Land Management to educate the public. Special attention should be given to those people who, according to the USDA and USDI '76 report to Congress, sponsored the "intensive children's campaign" which climaxed in the 1971 passage of the Wild, Free-Roaming Horse and Burro Act. I am concerned about the trend to manage natural resources by legislative action and/or court decree.

There appears to be a need for greater flexibility in the Wild Free-Roaming Horse and Burro Act content and regulations. There is a need to have sufficient flexibility to allow the resource managers of the USFS and the Bureau of Land Management to respond to changes in the weather such as this year's drought condition and to the differences in ecological conditions in the areas where the horses now exist. Many speakers have made the comment that this is of great concern to NACD and others.

My final comment relates to a personal belief and is not a specific policy or been addressed by NACD. In this, I refer to Section 8 of Public Law 92-195, item (4), "processes or permits to be processed into commercial products the remains of a wild free-roaming horse or burro, or (5) sells, directly or indirectly, a wild free-roaming horse or burro maintained on private or leased land pursuant to section 4 of this Act, or the remains thereof . . . shall be subject to a fine of not more than \$2,000 or imprisonment for not more than one year or both." I don't understand or accept the philosophy that a "wild horse" carcass is sacred any more than I can understand or accept the protected "sacred cows" of India which destroy range and other resources while their people are starving.

It appears to me that the passage of Public Law 92-195 and the authority of the Department of Interior and Agriculture and the responsibility for protecting wild free-roaming horses gives adequate protection to wild horses. I see no need to continue the restriction regarding processing of the remains of a wild free-roaming horse.

The opportunity for presenting this material to this National Wild Horse Forum is appreciated. We compliment the Cooperative Extension Service of the College of Agriculture, University of Nevada Reno for setting up this Forum for the consideration of the wild horse and its management.

STATEMENT FOR SALMON RIVER CATTLEMEN'S ASSOCIATION, INC. BY LLOYD E. SHEWMAKER, TWIN FALLS, IDAHO

The Salmon River Cattlemen's Assn., Inc. was organized April 28, 1947. It is a Nevada Corporation owned by 48 Stockholders at the present time. Most of the Stockholders are Farmers and Ranchers who reside in Southern Idaho. The ranch is located south of the Idaho-Nevada line and is an area 31 miles north-south and 24 miles east-west.

On the second day of May 1947 the Salmon River Cattlemen's Assn., Inc. purchased real property from Wilkins and Wonderlich consisting of approximately 68,000 acres of which approximately 11,000 acres are under a 99 year lease with the Salmon Canal Co. Included in the purchase was the grazing rights on 324,163 acres of Government Land, fenced and controlled by the Salmon River Cattlemen's Assn., Inc. and the Bureau of Land Management. Much of the deeded land is a checker board configuration which controls water facilities. The above named Corporation and the BLM set up the deeded land owned by the Corporation, as the base for the allotment of AUM's allotted the Corporation. This gives a private allotment on deeded and Government land of approximately 61,000 AUM's on 392,389 acres under fence. The topography of the ranch is rolling to mountainous ranging in elevation from 5200 ft. to 8636 ft.

The purpose and object of this Corporation was to promote and protect the business of raising cattle by the individual Stockholders and to work in cooperation with the grazing service in the administration of Federal Grazing Lands. Also, to do any and all things lawful, just and necessary to further the interests of the individuals and the Corporation in grazing and related matters of the livestock industry.

The Utah Construction Company who sold this property to Wilkins and Wonderlich in 1945, had for years previously, run thousands of cattle and hundreds of horses. At that time horses were used in construction work, in transportation, livestock handling, and by the U.S. Cavalry. We find it a little late to continue to argue the point, but the horses on this ranch are the remnants of horses raised there years ago.

When the claiming period for free roaming horses came about, we were faced with a two edged sword; we could choose between an impractical, economically impossible, method of gathering them with a trespass fee for those claimed, or relinquish ownership.

Bear in mind all claimed horses are not branded. It can be the desire of an owner to not brand a horse. It can also be economically unfeasible to brand them. What document can the Federal Government produce that would show they own the horses any more than the Cattle Association?

This past year our stockholders built two large strong traps at considerable expense. Labor and material came to \$11,397. These traps are of a permanent nature and can be reused but the cost per horse gathered so far is 93.41.

Although very expensive our success at gathering horses near the trap was fairly good. Our average cost per horse was approximately \$248.56.

We are still concerned with approximately 650 head remaining on the ranch. We lack the time and man power to move them to within the trap area. Any reasoning should point to the fact this is far too many horses for the area. With our drought conditions it is becoming a disaster for the horses and our range land.

We are asking that helicopters may be used for gathering the rest of our claimed horses. Are Governmental Agencies a group of people elected or appointed to give some control for the good of the people and their environment, or is it a dictatorial group that forces us to live with a double standard? Why should the Federal or State Government be able to gather horses any different than the rancher who earns his livelihood with the use of horses or any other animal.

Our people are minority and we are too busy making a living to compete equally with the Wild Horse Protective

Assn. or the Wild Horse Organized Assistance or other groups in their lobbying techniques and publicity programs. We cannot financially compete with their propaganda campaigns through the news and TV media.

We personally respect and admire Mrs. Velma Johnson and some of her associates. We respect an adversary that is dedicated in their purpose. We do not deny there has been brutal handling of horses and cattle. Some of the human race hasn't progressed beyond brutal, cruel treatment of their fellowman.

We want to appeal to your sense of fair play. The proposed rules (43 CFR Part 4700) pertaining to Claimed Animals Par. 47202 is an encroachment upon our rights to manage our land and is disruptive to BLM range management plans. These rules have been forced upon us by people, who to the best of our knowledge share no financial responsibility in the actual caring for horses. We help feed the horses, water them and provide salt. The rancher is the horses best friend. We do not subject them to the environment of a zoo.

We are willing to cooperate with a reasonable amount of horses; a minimum of 50 head and a maximum of 150 head. Let them run free on the ranch. What encroachment on private land and water sources will be negligible.

We ask that helicopters can be used, under the supervision of the BLM, to gather claimed horses on private allotments and deeded land. Also that only qualified crew members or passengers, as requested by the aircraft commander, be authorized to fly in the gathering of horses.

We request that owners of the allotment base for AUM's or permittees of such grazing rights be consulted and have influence in the establishment of the horse population of the area.

Our 48 member group requests that the Wild Horse Adoption plan be discontinued. It is impractical, inhumane and economically wasteful.

Since 1934 the BLM has encouraged and tried to practice good range management and through the passage of one law all this has been jeopardized. They have spent \$19 per horse in Elko District for supervision of horse captured. They spent \$62,000 in Carson City, Nevada for a horse adoption center. These costs with the above mentioned costs of constructing traps and gathering horses add up to total financial irresponsibility. The abuse of our forage, the erosion of the soil, the waste of time, energy and fuel is inexcuseable. We feel emergency measures should be taken immediately to reduce the number of horses on our land.

TRAP CONSTRUCTION COSTS
TEXAS AND MIDDLE STACKS TRAP
MARCH 13, 1977

1. Total man hours on the job.	1407 hrs.	@\$3.00 per hr.	\$ 4,221.00
2. Total man hours travel	924 hrs.	\$3.00 per hr.	2,772.00
3. Total vehicles used	14 trips	101	
4. Total miles traveled	13,705	.20 per miles	2,741.00
5. Chain saw hours	84 1/2	4.00 per hr.	338.00
6. Post hole digger	26 hrs.	4.00 per hr.	104.00
7. Wire	15 miles of 3/8" - 3 strand smooth (scrap metal price)		400.00
8. Wire	9 rolls new woven wire 3 @ \$79.00 - 6 @ \$59.00		591.00
9. Wire	10 rolls barbless 2 strand wire @ \$23.00		230.00
	AVERAGE COST FOR 122 HORSES \$93.41		<u>11,397.00</u>
10. Soft wire, staples and stays not figured			
11. 800 wooden post and stays figured on man hours and chain saw time only.			

SUMMARY
 COST OF HORSE GATHERING
 MARCH 13, 1977

1. Total people involved	13 attempts	(43 av.)	563
2. Total saddle horses used	horse days	(38 av.)	492
3. Total vehicles used not counting trailers		(18 av.)	235
4. Total miles traveled for gathering		(2,641 mi. Av.)	34,340
5. Total man hours for gathering		(450 Av.)	5,851
6. Total horses captured		(9.38 av.)	122
7. Estimated fuel used		(@ 4 mi per gal.)	6,868 gal.
8. Cost of fuel		(@ 56.2¢ per gal.)	\$3,859.81
9. Cost of miles traveled - trucks and 4 wheel drives pulling trailers etc.		(@ 20¢ per mi.)	\$6,868.00
10. Cost of man hours		(@\$3.00 per hr.)	\$17,553.00
11. Cost of saddle horses		(6 hrs. per day @ \$2.00 per hr.)	5,904.00
12. Cost of miles traveled		(@20¢ per mi.)	\$6,868.00
Cost of man hrs.		(@\$3.00 per hr.)	\$17,553.00
Cost of saddle horses		(A\$2.00 per hr.)	\$5,904.00
			<u>\$30,325.00</u>
13. Cost per horse for gathering.	122 head - Average		\$248.56

Costs not considered:

1. Time in organizing gatherings.
2. Telephone calls.
3. Radio maintenance expense.
4. Tire repairs.
5. Broken springs and axles.

CHAPTER V

VIEWS OF WILDLIFE AGENCIES AND ORGANIZATIONS

William L. Reavley*

Agencies dealing with wildlife forms as provided by law have been involved with the ecology of western public lands in a practical way since statehood began in California in 1850. Feral or wild horses have been a factor in wildlife and wildlands management recognized by professionals for over a century. Personnel in these agencies have a concern and abiding interest in wild horses due to the nature of their professions which often requires the use of horses. However, the greatest concern by wildlife managers is the long term stability of the soil, water and vegetative mantle which is necessary to sustain all life.

Prior to federal acts involving the wild horse, western state fish and game agencies in varying degree were legal participants in management and control programs of free roaming horses. Some Departments utilized horse meat in fish hatchery operations with full knowledge of this fact by involved state and federal agencies. Fish and Game Departments often purchased horses for hatchery use utilizing regular commercial channels. In some instances when commercial markets were low in supply, Fish and Game Departments occasionally became involved in the field, taking wild horses not only as food for fish but also as range management implementation in conjunction with management programs of other state and federal agencies. This source of fish food became obsolete as nutrition research and technology developed better sources of food.

It has been said that hunters and fishermen and those among them who became fully employed in management positions were the original ecologists. Aldo Leopold quickly comes to mind when examining this statement. He stated National Wildlife Federation was state affiliate in New Mexico in 1914. At any rate, wildlife agencies do have a great deal of experience in working towards the goal of maintaining wildlife populations in balance with food supplies and other life giving requirements. While no one agency, group or single influence controls all of the factors that relate to achieving a proper population - environmental relationship, many of the people involved are most certainly aware of the techniques.

Wildlife agencies and organizations have been in the thick of controversial wildlife problems in a practical way. Many have experienced the agony of large scale deer starvation incidents. These groups also must be considered environmentalists since many thousands of Environmental Impact Statements are reviewed annually by Fish and Game Departments and by citizen groups.

One consequence is that the majority of wildlife agencies and their counterpart citizen wildlife organizations strongly supported the need to properly manage wild horses when their numbers were threatened. However, wildlife agencies and organizations, having been well grounded in the practical end of wildlife management, felt that the provisions in the 1971 Wild Horse Protection Act to be rather impractical. In addition these groups were not fully convinced that wild horses could be considered as wildlife. Quoting from Resolution Number 20 adopted by the National Wildlife Federation Feb. 28 - Mar. 2, 1969 in annual meeting in Washington, D.C., "Whereas, wild, unbranded horses, mares, colts, and burros are descendents of domestic animals not native to the United States, Therefore be it resolved the NWF hereby expresses its opposition to classification and treatment of wild unbranded horses, mares, colts, and burros as endangered species of wildlife."

The question of whether wild horses can be truly classified as wildlife in North America may be academic at this point in time. However, as roles and concepts change down through the years and as increased demands from public lands accelerate, the debate of how much of the public lands can rightfully be devoted to non-native life forms that primarily offer historical and esthetic values will likely continue.

Thad Box, Dean of the School of Natural Resources, Utah State University, and a member of the National Wild Horse Advisory Board, told an audience at a hearing at China Lake, California in 1976 that horses and burros are not native in North America and this has a considerable affect upon native vegetation. Indigenous animals that evolved with native plants have a natural relationship that does not exist with introduced forms. Some native plants have no protective mechanisms against introduced animals and as a consequence are more easily damaged or destroyed by the introduced animal.

Introduced animals have left a widely known path of destruction and problems throughout the world. Examples include the rabbit introduction into Australia, deer in New Zealand and sheep and goats in numerous places. One can see a most impressive illustration created by populations of feral goats and sheep on the Island of Hawaii. There the National Park Service is gradually eliminating the goat population in Volcanos National Park. When goats are excluded the vegetation comes back with amazing vigor, after goats had almost completely obliterated all signs of vegetation. From a zoological viewpoint, horses must be considered to be a non-native life form in North America carrying with it numerous consequences.

*Western Regional Director, National Wildlife Federation, Sacramento, California

The Wildlife Management Institute when replying to my inquiry regarding this Forum enclosed their original statement made to the Senate Subcommittee on Public Lands in 1971, adding by letter a sentence in reference to the original statement as follows: "If anything, the problem has become more acute since that time." In 1971 the Institute pointed out that a major problem was the fact that many "free roaming" horses called "wild" are in fact simply branded and unbranded trespass stock of a not-too impressive ancestry. The statement suggested these animals should be separated from the traditional wild horses of Spanish origin and removed from public lands.

The concept of managing free roaming horse populations in a manner that would perpetuate the genuine Spanish mustang strain seems to be viewed with favor by many individuals. Scientific data which would provide authorities with easily recognized characteristics would help. Wildlife managers and laymen who spend considerable time on western range lands consider the bulk of free roaming horses to be the offspring of domestic stock. It is very difficult for these experienced observers to view these animals as either wildlife or endangered life forms.

In the case wherein the State of New Mexico contended that the Federal Government had no jurisdiction in the management of free roaming horses and burros, the International Association of Fish and Wildlife Agencies filed as an amicus. The reason centered on a jurisdictional matter. However, there was widespread hope in the west that the court would rule in favor of New Mexico, but for the reason that history clearly showed that more realistic management of horses was possible before the passage of the 1971 Federal Act.

There may be considerable support in the scientific community for efforts to identify and manage enclaves of horses thought to be related to the Spanish mustang. The next assumption is that free roaming horses unmistakably from domestic origin, branded or unbranded, would be greatly reduced in number and maintained at levels commensurate with specific range management goals and plans for specific areas. Essentially in these areas the horse population would consist primarily of animals for which grazing permits had been issued. However, some experts say it may be very difficult to prove or identify those animals with Spanish mustang characteristics.

Unfortunately, urban America makes no fine distinction between races, strains or types of free roaming horses and apparently is thrilled to see in the sunset any kind of critter even closely resembling a horse. And for management purposes obviously the problem is to bring under control the entire horse population in keeping with over-all range management objectives, no matter what the ancestry.

Not surprising, wildlife agencies and citizen conservation groups interested in wildlife all strongly stress that horses must be managed in the same manner as any other herbivore. Constraints imposed by the 1971 horse protection act have greatly hampered proper management. Horse populations are considered to be influencing the welfare of wildlife species in several western states. Quoting from a letter from Robert Wambach, State Fish and Game Director in Montana, "The Montana Department of Fish and Game is concerned with the Pryor Mountains wild horse range located near the Wyoming border in the eastern portion of Carbon County. We feel the area has a past history of overuse by domestic livestock and at the present time is carrying between 110 to 120 adult horses with approximately 40 sub-adult horses. Our biologists feel that those numbers exceed the area's "carrying capacity." Another paragraph states "Big game animals that frequent the area (Pryor Mountains) are elk, mule deer and bighorn sheep." Again, or field people feel that the overgrazing by horses is a factor affecting those populations and the populations of other wildlife species.

In Nevada, according to a report by the Department of Fish and Game, at least a dozen specific areas where horse populations are creating serious competition with various wildlife species are cited. Idaho points to a problem near Challis where a poor habitat is affecting Antelope populations and is complicated by a rapidly increasing horse population. Other Departments express general concern for wildlife in the face of increasing horse populations.

In reference to management suggestions the National Wildlife Federation in 1975 adopted a resolution "that the use of properly supervised aircraft be authorized for the effective management of wild horses and burros," and "the administering Federal agencies be permitted to dispose of title to surplus animals through sale or donation." In 1976 the Western Association of State Game and Fish Commissioners adopted a resolution in essence as follows, "--urges Congress to authorize the Secretaries of Interior and Agriculture to sell, donate or otherwise remove federally owned excess horses or burros to be utilized as the recipient desires, and BE IT FURTHER RESOLVED, that use of aircraft and motorized vehicles be authorized for protection, management and control of wild horses and burros.

The 1976 Report to the Congress on the Wild Horse and Burro Act contained a recommendation of the Secretaries of Agriculture and Interior to the Congress. This recommendation suggests the following changes in Public Law 92-195: "1. The Secretary is authorized to sell or donate excess animals on written assurance that such animals will receive humane care and handling and that humane methods will be used in the disposal of such animals. The Secretary shall establish procedures which give priority to persons seeking excess animals to keep and maintain for domestic use." "2. Upon sale or donation, as provided above, animals shall lose their status as wild free-roaming horses and burros and shall no longer be considered as falling within the purview of this Act."

These suggestions contain the essence of the Western Association resolution and are designed to give proper authority to manage wild horses and burros and not to negate Public Law 92-195.

The wildlife agencies and organizations will undoubtedly continue to press for effective control of horse populations. The proper use of helicopters will be helpful. There are however several aspects to the Act that make management difficult and hopefully these items will be corrected.

Everyone interested in the wild horse must recognize that going to Congress to obtain funds for special interests does not always achieve success. In spite of the very popular public movement that swept Public Law 92-195 into being it was still not strong enough to effectively move the system that appropriates funds. Even the meager horse control programs thus far conducted by the BLM have been done at the expense of other on-going programs of that agency. Undoubtedly even tighter budgets are coming in the future. Congress will find it increasingly difficult, if not impossible, to fund any kind of program that is unduly expensive for the benefits derived. Programs that do not require funding and programs that are self-funding will surely be approved ahead of programs such as the wild horse act which so far has proved to be very expensive for the results achieved.

If this administration is going to be successful in its most serious challenge, that of coping with the energy shortage, it must discourage and even mandate that all unnecessary use of energy be drastically curtailed or eliminated. This kind of policy runs contrary to the "Adopt-a-Horse" program which encourages individuals to utilize more fuel transporting horses, feed and maintaining animals that are primarily used for pleasure and not for business or work. Many governmental plans will be changing life styles for Americans. We are being told it is far better to get along with much less than it is to completely run out of energy. However, many special interest groups believe this admonishment should apply to all others except themselves. True conservationists must set good examples for others to follow.

Credit must be given to the BLM and the Forest Service who are gaining knowledge and experience with the horse problem and especially the fine individual effort now becoming evident. But the federal establishment moves in painfully ponderous pathways. While it is pleasant to think about improvements here by redirection and reorganization of the federal establishment, and in spite of promises along these lines, the probability doesn't seem too great.

Fortunately Public Law 92-195 has been amended and to be workable further amendments will likely be necessary. The Bureau of Land Management in plain language is telling the public that Nevada and a few other western states can be facing disaster in some areas due to too many horses and an unhappy assistant from nature in the form of the drought. American heretofore could afford some land management mistakes but this era is rapidly disappearing. The over-riding management view must be for the welfare of the specific ecological systems available to us and not for the individual welfare of certain life forms. We can be concerned about the welfare of every single individual animal in the present horse population but we cannot do so by accomodating the view that every animal must have a happy ending. Removal of animals to proper levels is the only way open to us if we wish to perpetuate the population. This is a simple biological problem with a simple solution. If we fail to solve this simple problem, our chances of success with the complicated land use management process doesn't seem too bright. This Forum should give us the clear view of a common objective and with that much in common the solution should be soon recognized.

Material for this paper obtained from letters, resolutions and personal comments from the following agencies and organizations.

International Association of Fish and Wildlife Agencies
Western Association of State Game and Fish Commissioners
Wildlife Management Institute
National Wildlife Federation and its western state affiliates
Izaak Walton League
Arizona Game and Fish Department
California Department of Fish and Game
Colorado Division of Wildlife
Montana Department of Fish and Game
Idaho Fish and Game Department
Nevada Department of Fish and Game
New Mexico Department of Game and Fish
Oregon Department of Fish and Wildlife
Utah Division of Wildlife Resources
Wyoming Game and Fish Department

CHAPTER VI

WILD HORSES AND CONSERVATION ORGANIZATIONS

Bernard Shanks*

Wild horses on the western public lands have been one of the most publicized and controversial environmental issues in recent years. As a result of the print and electronic media, the wild horse issue is widely known, comparable to national parks, wilderness and wildlife issues. Despite the widespread coverage of the subject and a relatively high public awareness, many established and active environmental and conservation organizations have not been involved with influencing legislation concerning the wild horse. (For the purpose of this paper, animal protection and wildlife organizations are excluded from discussion although many are obviously "conservation" oriented.)

Characteristics of Conservation Organizations

The Echo Park dam controversy in the 1950's was the first successful conservation issue utilizing tactics of education and publications to influence public land policy. Using methods refined since the Echo Park issue, public land policy has been directly and substantially influenced by conservation and environmental organizations. Each year through education programs, magazines and newsletters and as a result of direct lobbying, the organizations and their members impact a wide variety of issues both broad and specific. Many western residents view organizations, such as the Sierra Club, The Wilderness Society and Audubon Society, collectively as unrealistic and radical protectionists of a natural environment. In reality, each organization is uniquely different in its use of techniques and tactics as well as the issues it focuses on.

Some of the largest and oldest organizations are conservative and extremely reluctant to take an active role in any public land policy issue. In the past the organizations have feared losing their tax-exempt status as the Sierra Club did during the Grand Canyon dam controversy. Some groups risk offending segments of the membership or individuals on governing boards. Still other organizations fear losing large donations or potential gifts from wealthy members or impairing grant applications to private foundations. Some of the most active organizations are small and operate with limited staffs and budgets. Still other organizations, notably the Sierra Club, have numerous field chapters whose attitudes and policies are sometimes in conflict with the parent organization.

Wild horses have enjoyed widespread support and although conservation organizations are reluctant to take on some issues, it is reasonable to expect some, if not all conservation organizations, to have a role in the wild horse issue. Rather surprising, even after the passage of Public Law 92-195 on December 15, 1971, few established conservation organizations have been actively involved with either supporting or opposing wild horses on the public domain. Wild horses appeared to attract a different set of supporters and organizations compared with traditional environmental issues, such as pollution, parks and endangered species.

Several studies have demonstrated the high levels of income, education and political involvement of members of various conservation organizations. Members and activists are not "typical" citizens. A recent Audubon Society poll revealed that its members had an average annual income of \$35,708. Eighty-five percent of Audubon members attended college and forty-three percent went on to attend graduate school. Other environmental groups reflect the activist role of the Audubon Society, where 38% wrote their congressmen in recent months and 84% voted.¹

Members of conservation organizations often live in urban areas and many are based in eastern United States. Indeed, historically, most public land conservation issues have found the majority of political support in the east, while those land practices stressing economic and utilitarian values found their greatest support in rural and western states. The wild horse issue has not followed this pattern. While specific data is not available on supporters of wild horses, much of the original support came from westerners, as well as western Congressmen and Senators. The wild horses' best-known advocate, Mrs. Velma Johnston, is not only a westerner but has a ranching background. Mrs. Johnston has credited Nevada's former Congressman Walter Baring as the most important member in assuring the passage of Public Law 92-195 in 1971. Baring introduced legislation in the House of Representatives in both 1959 and 1971 supporting wild horse protection. Ironically, during Baring's last election campaign, prior to his defeat in the 1972 primary, he was named by the League of Conservation Voters as one of the "Dirty Dozen" a title given those Congressmen with the poorest environmental records. The 1959 wild horse legislation was introduced by Senators Mansfield and Murray both of Montana. In addition to Baring, the 1971 legislation protecting the wild horse was introduced by western Senators Hatfield of Oregon, Jackson of Washington, Church of Idaho and Moss of Utah. During congressional hearings on the 1971 legislation, Senators Bible and Cannon of Nevada and Fannin of Arizona supported legislation. Only cattleman Senator Hansen of Wyoming opposed the legislation. What the legislative record illustrates is the wild horse issue attracted western support that many public land conservation issues fail to achieve.

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Relationship of Wild Horse and Public Land Management

A review of the legislative records and publications on wild horses supports the concept that most established conservation organizations did not actively involve themselves with legislation protecting wild horses. A survey of leading conservation organizations supports this view and will be discussed further. The wild horse appears to have been a change agent. In recent years the wild horse focused attention on western land management, particularly Bureau of Land Management (BLM) lands. The wild horse widened the scope of some conservation groups' interests from national parks and wilderness to include the vast acreage of public domain lands.

The wild horse on the public lands and the subject of its protection and management has much in common with other environmental issues. The numerous comparisons with traditional issues raise questions as to the failure of conservationists to support horses. The rhetoric and words of both groups are similar.

First, the wild horse is seen by many of its supporters as a symbol. The horse is a symbol of freedom, wilderness and the frontier. There can be no doubt that the wild horse has captured the imagination of many supporters and remains a romantic and exciting symbol. The similarity of the wild ones and the symbolism of wilderness is inescapable. The wild horse and the wilderness supporters use the same terms to describe their symbol of freedom. The groups appear to be different and although the words they use are identical, the meanings are different. For one group, the symbol is a means to escape, for the other group the symbol is geographic space.

If wilderness supporters use the same terms as wild horse advocates, the same can be said for wildlife-oriented conservationists. One of the powerful arguments used in advocating the initial protection of the wild horse was declining numbers. The wild horse formerly was abundant. One author claimed no less than one million horses on public land in 1925.² The decline in horse numbers set in motion efforts for their protection as the decline in antelope, buffalo, and other bird and mammal species triggered numerous conservation efforts by the Audubon Society and other organizations.

Another fundamental argument utilized by proponents and opponents of wild horses focused on economic uses of the public lands vs. aesthetic or vicarious uses. Numerous other conservation issues in the past and today focus on this basic issue. Those supporting the aesthetic values of national parks, endangered species and wilderness certainly have more similar perceptions of the environment than with those favoring economic uses of public land.

Particularly in recent years, the wild horse issue, as well as other public land policy issues, has centered around range habitat conditions. Numerous arguments have been concerned with the relationship between the western range condition and soil erosion, the influence on wildlife and ecological change. Both wild horses and domestic livestock have been at the center of this issue.

The western stockmen who utilized the public lands for grazing have resented the competition from wild horses and burros. Probably a more serious concern has been the attention the wild horse brought to western range conditions. The wild horse has focused the attention of conservation members, sportsmen and the resource managers more sharply on the cause of habitat and ecological change on the public lands.

Since the passage of Public Law 92-195 in 1971, the wild horse has been the center of a management versus protection issue. The relationship between this issue and national parks and wilderness areas is readily apparent. One group argues for the need for management, others cite the need for multiple use. The opposing groups stress protection and the lack of compatibility with other uses of the public land. The degree of protection required and the methods of management have much in common with other public land problems.

If wild horses have much in common with other public land issues, some aspects are clearly unique. Most obvious is the humane treatment of the horse. Wild horse management without cruelty has little comparison with other policy issues except hunting. Somewhat related to this is the conflict between sportsmen's groups and wildlife organizations regarding the wild horse. Many of the wildlife organizations view the horse as a threat to hunting activities, because of competition with game species for habitat. Related to the stockmen, the most serious threat to their activities has been the arrival of animal protection groups to the western public land policy scene.

Conservation Organizations in Recent Years

Senate Bill 1116 passed the Senate without opposition in June, 1971 and was signed into law by President Nixon. Since that time, management issues of wild horses on the public lands drew some of the traditional conservation organizations into the wild horse controversy: The Sierra Club has made substantial changes in its policy statement since its representative stated that "the wild horse is certainly not an alien" in 1971.³ The change in Sierra Club policy resulted in part to local chapters. One conservationist summarized the early attitude, "When the 1971 Act was under consideration, many conservationists took no position because horses were not a high priority (and too many other problems were), the bill captivated many new people who previously had no interest in the public lands, and the number of horses and burros and their impact, ecologically, politically and economically, was not known (and still is not known today)."⁴

The attitude of individual conservation organizations is complicated by the fact that the local chapter of the Sierra Club in Nevada is regarded as the state's most radical conservation organization. In fact the chapter is conservative compared with the national organization and more recent protectionist organizations. Local chapters of the Sierra Club with sizable burro populations precipitated lengthy discussions within the Club over the appropriate policy. Today, the Sierra Club, often regarded as a radical environmental organization, has one of the more detailed policy statements on burro management. Its policy statement reflects more study and quality of thought than other organizations.

In November, 1969, Audubon magazine carried a balanced but basically sympathetic article on the wild horse. Similarly, the National Parks and Conservation Association printed a generally supportive article on wild horses in March, 1971. By 1976, the *High Country News*, the west's best-known environmental newspaper, carried an article on wild burros and discussed the 1971 Wild Horse and Burro Act.⁵ Subtitled with the question "America's Sacred Cow?", the article indicated substantial changes in conservationist attitudes toward the wild horse.

Conflicts between wild burros and native wildlife in Death Valley National Monument, Grand Canyon National Park and other parks prompted the National Parks and Conservation Association to support management and control plans in Park Service areas. However, the organization supports the 1971 Act as it applies to U.S. Forest Service and Bureau of Land Management lands. "Wild Horse and Burro populations should be maintained in these areas for their historical significance and esthetic value."⁶

In 1975 the Izaak Walton League of America, an old and traditional conservation group, supported the concept of managing and controlling feral horses and burros "to maintain a balance with the carrying capacity of the range and the habitat requirements of native wildlife and domestic livestock." "The League is deeply concerned about the actual and potential damage to wildlife and rangelands from unchecked increases in feral horse and burro populations."⁷

Other conservation groups support the concept of wild horses but insist on management "humanely" to reduce the impact on native wildlife. Many other groups express no organizational policy. One staff member of a national organization frankly stated that his group wanted to avoid the issue. He and other staff members feared the splitting of their members between "purists" who wanted no horses on public lands and advocates of the wild horse. As a result, his organization and others have straddled the wild horse issue and issued only general statements concerning their management and protection.

Some eastern groups heavily involved with broader environmental issues have not dealt with the wild horse issue or relied on established groups like Wild Horse Organized Assistance (WHOA) to keep them informed.

Conclusion

Despite the obvious symbolic ties between wild horses and other public land issues, many established conservation organizations still do not have formal policies toward wild horses. Most organizations were not involved during debate on the 1971 legislation. Since that time a few organizations have become involved, usually advocating the management and protection of the wild horse on public lands.

Conservation organizations seldom present a unified posture on any issue despite the laymen's perception of the environmental movement. However, the wild horse issue has involved many new organizations in public land policy. As a public land policy change agent, the wild horse has had a unique influence. The wild horse still elicits strong emotions, reactions, and responses. The wild horse is a symbol of freedom for some and a threat to others. For everyone concerned with public land, the wild horse can represent a need for more scientific data and the need for the rational formulation of land management policy.

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CHAPTER VII -RESEARCH NEEDS

INTRODUCTORY REMARKS

Michael J. Pontrelli, Ph.D.*

The 1971 Wild Horse and Burro Law states: "The Secretary shall manage wild free-roaming horses and burros in a manner that is designated to achieve and maintain a thriving ecological balance on public lands. He shall consider the recommendations of qualified scientists in the field of biology and ecology." During the Congressional hearings on this law the need for research was clearly stated repeatedly and a similar commitment to support research has been made by agencies many times. Yet, very little research has been supported and the need is no less strong.

In the recent Federal law suit of the American Horse Protection Association versus the Department of the Interior, the Judge made it abundantly clear that not only was there not enough research done but that what had been done was of poor quality.

When it comes to wild horses, all too frequently, we have poor inadequate data or no data at all.

Most people use research as either a scape goat or a cure-all. If we want something to remain the same, we say either we already know enough or we say any action must stop because we don't know enough. What is really known is not important. How often have you heard one group fight an issue because of "poor" data while another group supports the issue because of "excellent" data. I am reminded that the livestock industry rejected Bureau of Land Management data on too many domestic livestock and supports Bureau of Land Management data on too many wild horses. Horse protection groups responded to the same BLM data with exactly the opposite position. Two things become obvious, first the data was not strong enough to preclude argument and second people support the things they like to hear and fight the things they do not. With no research for good data - there is no alternative to emotion. It was interesting to note that each of the protection groups advocated more research in the discussion of their panel.

Researchers have two main problems the first is image - to many, research is both poorly understood and feared, for example - "It's all vivisection!!!" and the second is money - research is expensive.

How do we proceed - I really do not know. To date I have been unsuccessful in Nevada and I have two recent examples to tell you.

First, the Chairman of a committee deciding what to do with almost a half a million dollars of money given to Nevada for the "preservation of wild horses" said after a one day field trip to Central Nevada that now "they have done all the research needed." When discussing research proposals submitted to that committee, another committee member said research is like trying to empty the ocean with a spoon and he recommended rejection of all the proposals, which was done. When I called to talk to this person, who is an attorney, his secretary said he was in the law library "doing research."

We need research on wild horses and I am sure the following presentations will give the reasons.

PROSPECTUS FOR RESEARCH RELATED TO MANAGEMENT OF WILD AND FREE-ROAMING HORSES AND BURROS

James P. Blaisdell and Jack W. Thomas**

Horses and burros were unknown to the people of the Americas until they were introduced from Europe, first by Spanish explorers and later by early settlers and missionaries. Some of these animals escaped from their owners, and their descendants spread throughout Western United States. These original herds have been continually supplemented through escape, abandonment, and deliberate release. As a result, these animals today are of varied genetic makeup, many having none of the original mustang blood.

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In developing this prospectus, the authors wish to acknowledge utilization of source material prepared by the Forest Service, Bureau of Land Management, University of Nevada Reno, and Utah State University.

Numbers of wild and free-roaming horses and burros are not well known, but counts and estimates by the Bureau of Land Management and the Forest Service have provided considerable information on populations. May 1, 1975 estimates on lands in Nevada administered by the Bureau of Land Management show 21,868 horses and 691 burros. A January 1975 estimate on National Forest System populations in Nevada shows 1,223 horses and 13 burros. In total, in all western states in January 1975, there were an estimated 49,658 horses and 5,183 burros on BLM administered lands. January 1975 inventory of NFS populations shows 2,756 horses and 313 burros on all lands administered by the Forest Service. Presently, wild and free-roaming horses and burros are increasing at a rate of more than 20 percent annually.

A map prepared by the Forest Service in 1973 (enclosed) indicates the major concentrations of wild horses and burros. Apparently, Nevada and the States of Oregon, Wyoming, California, Arizona, Utah, and Idaho support most of the herds, and would probably provide most of the study areas.

Horses and burros can be found in a variety of habitats. Included are cold deserts, where precipitation averages 10 or 12 inches, and the warm deserts where annual precipitation may not exceed 3 inches. Also, they use ranges from the valley floors to the high mountain passes, and they share these ranges with a variety of ungulate wildlife and domestic livestock.

Research is urgently needed to provide technology required to sustain and manage wild horses and burros in the West. These animals, as required by the Wild Free-Roaming Horses and Burros Act, P.L. 92-195, shall be managed "to achieve and maintain a thriving natural ecological balance on public lands."

The Act also authorized needed research. Many unanswered questions relate to the current and desired thrift of the animals, impacts on ecosystems they occupy, technology for managing these equines and their habitats, and their interactions with domestic livestock and wildlife.

Answers to be derived from research would lead to scientific management of wild horses and burros, while minimizing competition for food and water with domestic livestock and wildlife.

Special range improvement practices may be required to restore damaged ranges and to maintain adequate food for all range-dependent animals--wild horses and burros, domestic livestock, and wildlife. Poor range conditions today are thought by many to be the direct result of uncontrolled overgrazing by wild and free-roaming horses and burros during the late 1920's and early 1930's, while others attribute poor range conditions to livestock and wildlife. A significant part of this program would be designed to identify lands which would be considered as wild horse and burro territories, and to provide technology necessary to manage these territories so as to restore the full carrying capacity.

Any foraging animals, if unmanaged, will have a decimating effect on many other foragers. The critical interrelationships among wild horses and burros, domestic livestock, and wildlife must be determined as soon as possible so that desired balance can be achieved through management.

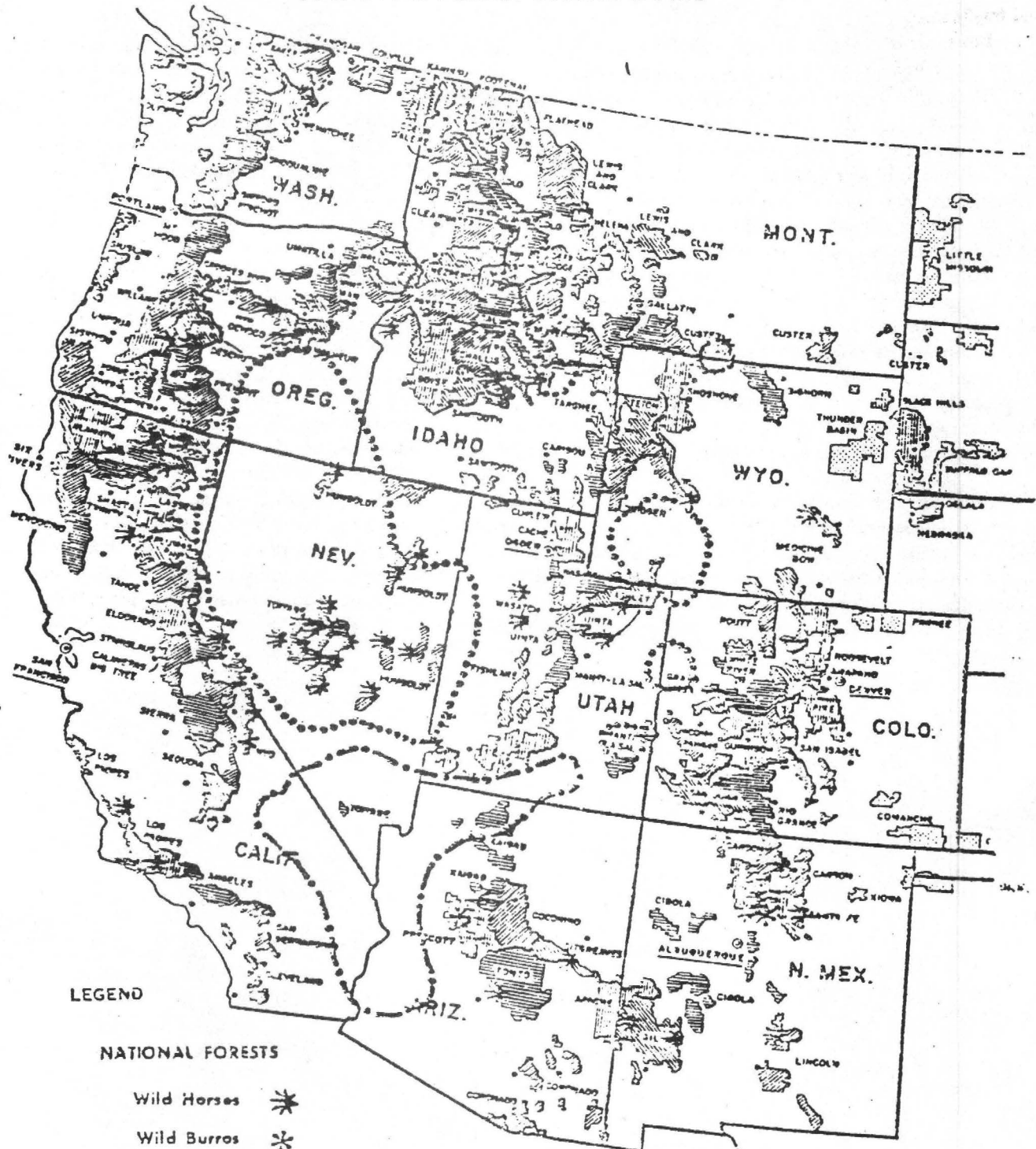
Specific goals of the research program would be:

1. Adapt present censusing techniques to wild horses and burros and identify their most commonly used habitats.
2. Determine population dynamics and behavioral patterns of wild horses and burros, and develop effective and humane control and capture techniques.
3. Determine biological and physiological needs of wild horses and burros, their forage preferences, and effects of predators and disease.
4. Establish ecological interrelations (such as competition for food, cover, and water) among wild horses and burros, domestic livestock, and wildlife.
5. Determine environmental impacts of wild horses and burros in sensitive ecosystems of the Great Basin and other parts of the West, especially pinyon-juniper, sagebrush-grass, mountain grassland, salt-desert shrub, and other deserts.
6. Develop special techniques needed for rehabilitation of ranges damaged by wild horses and burros, and for maintaining them in optimum condition and productivity.
7. Provide management alternatives to achieve ecological balance between the animals and their habitats.

The required research program is estimated to cost \$450,000 per year for a 5-year period. Research will be conducted by Forest Service research work units of the Intermountain Forest and Range Experiment Station headquartered on the campus of the University of Nevada, Reno; Pacific Northwest Forest and Range Experiment Station at La Grande, Oregon; and the Rocky Mountain Forest and Range Experiment Station location at Laramie, Wyoming, and Tempe, Arizona. The research would be a coordinated effort with universities, Bureau of Land Management, National Forest Systems, and State agencies, particularly State Game and Fish Departments. This research will not be the sole research effort but will complement efforts by the Bureau of Land Management and others.

Application of the knowledge forthcoming from this research would improve the effectiveness and efficiency of management, reduce competition among wild horses and burros, domestic livestock, and wildlife; enhance opportunities for local economies to capitalize on the esthetic potential of wild horses and burros; and protect deteriorated

NATIONAL FOREST SYSTEM LANDS



LEGEND

NATIONAL FORESTS

- Wild Horses *
- Wild Burros *

BUREAU OF LAND MANAGEMENT

- Major Horse Areas
- Major Burro Areas - - - - -

Possible Locations

Wild Free-Roaming
Horses and Burros

1973

and fragile ecosystems in the West.

For those of you who don't know us very well, I would like to append to the prospectus you received at registration some background on the research branch of the Forest Service. Today, as for the past 60 years, the mission of Forest Service research is to develop the knowledge required to enhance the value to man--both economic and environmental--of all of America's forest and related lands. Therefore, in our research we are just as much concerned with private, state, and other federal lands as we are with the National Forests, and we have been delegated appropriate responsibility and authority by Congress. We employ a full spectrum of disciplines in the biological, physical, economic, and social sciences to solve complex problems of wildland ecosystems.

The goal of our research effort is to learn how man can best use and protect the plant, animal, soil, water, and esthetic resources of forest and range lands. Equal concern is shown for conservation of renewable resources, for productivity to meet the needs of a growing nation, and for improvement of the environment. Studies of wild horses and their relation to other forest and range resource uses and values certainly fit into the Forest Service research goal, and should result in the development of guides for satisfactory management.

Forest Service research is carried out in eight regional experiment stations, which cover the entire 50 States. Our research procedures call for selection of the most important problems, analysis to determine study priorities, development of effective study plans, collection of necessary data, and publication of results. We require input from land managers, conservation organizations, livestock and timber producers, sportsmen, and other researchers in all of these activities. Further, we insist on stringent reviews of study plans, manuscripts, etc., as a means of quality control.

To handle complex research such as that proposed for wild horses, we need cooperation among individual scientists and research institutions. The Forest Service encourages cooperation, and any authorized research may be performed in cooperation with others. It can include exchange, use, or sharing of information, materials, equipment, personnel, funds, and facilities. Cooperation stretches the research dollar, strengthens research programs of cooperating institutions, develops mutual understanding, and facilitates dissemination of research results and application of scientific knowledge. We have many serious problems, but we have excellent opportunities for solving them if we utilize available talents, facilities, and funds in cooperative and fully coordinated research.

WILD HORSE RESEARCH NEEDS

Milton N. Frei*

The topic I have been asked to discuss today is research needs which we in BLM have identified as being important for wild horses. However, since the need for additional information about these animals is so abundant I will confine my remarks today to those needs which we in BLM consider to be researchable items and which have the highest priority for undertaking should research funds become available in the near future.

Basically, we are looking at three major areas as having first priority for wild horse research. For the most part, these areas concern the development of methods or techniques which will help us to overcome the restrictive provisions of Public Law 92-195, while at the same time developing techniques which can still be used if the restrictions are lifted in the future. Specifically, the restrictions we are trying to overcome are those associated with the capture, handling, and disposal of excess animals.

Our first priority for research involves the development of a technique to control excess wild horses numbers at a reasonable cost and without having to physically capture any of the animals. Basically, what we are looking for, is some type of fertility control for wild horses with the target animal being the dominant stallion. The idea would be to administer an anti-fertility compound to the dominant stallions which would in turn maintain their aggressive, dominant behavior and keep breeding by sub dominant stallions and non-harem stallions to a minimum.

The wild horse is basically a seasonal breeder with the mare showing behavioral signs of estrus in March through June and the stallion showing higher testosterone levels during the same period. This type of reproductive behavior of collecting and maintaining harems by the stallions, makes the wild horse highly susceptible to fertility control from a target animal standpoint. Theoretically it should be possible to direct fertility control at dominant stallions, at some point in time prior to the breeding season, and effectively reduce reproduction during any particular year.

In order to be functional as a management tool, fertility control must do three things:

1. It must inhibit spermatogenesis or the production of sperm cells.
2. It must not effect aggressive behavior or the bachelor stallions will take over and continue to produce foals.
3. It must be reversible in its action so that the gene pool is not irreversibly altered and the population is capable of regenerating itself whenever necessary.

Hopefully, fertility compounds will be developed which can be administered to the animals by remote injection. This would mean that the dominant stallions could be injected with the drug, from a helicopter, or on the ground through the use of a cap-chur gun. It has been my experience that dominant stallions can be readily identified from the air. As a result, it should not be difficult to administer the drug from a helicopter, in country which is relatively flat and open.

One of the primary advantages of fertility control is that it could be a useful management tool regardless of whether P.L. 92-195 is amended to allow BLM to sell excess wild horses. It would allow us to regulate the production of animals and make animals available in relation to public demand.

Our second priority for research involves the development of a technique for capturing and handling wild horses which can be used by individuals with different backgrounds and levels of experience. At the present time there are two major types of expertise which are needed in the management of wild horses. One of these is the expertise associated with the capture and handling of live animals. The other is the expertise associated with understanding the principles of population dynamics which are at work in every animal population. Unfortunately, it is a rare occurrence when any one individual possesses expertise or experience in both of these areas. As a result, what is needed is a technique for capturing and handling wild horses which can be used by individuals having little or no experience in capturing or handling the animals by customary physical methods. Specifically we are in need of an immobilizing drug which is designed exclusively for use on wild horses.

The technique of chemical restraint or immobilization, has been widely used in the field of wildlife management for many years. For example, the university of Idaho at Moscow has perfected the technique of immobilizing elk to the point that stress is minimized over any other method and rope burns, broken necks, broken legs, choking, near exhaustion and injury to people are practically non-existent. Similar results would be highly desirable in the management of wild horses.

At the present time, a variety of drugs are available which can be used to immobilize wild horses. However, each of these drugs have certain disadvantages which make them difficult to use. Some examples include:

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1. High costs.
2. Slow knockdown time.
3. Low tolerance level by the animals.
4. Excessive restriction on availability.

As a result, what we are looking for is a drug which would: a. be relatively inexpensive, hopefully under \$25.00 per animal; b. have a fast knockdown time, preferably less than five minutes; c. have a wide tolerance by the animals, hopefully allowing for a 30 percent variability in drug dosage without adverse effects; and d. be available to BLM personnel without excessive restrictions on purchase, storage, or use.

Our third priority for research involves an investigation into the causes of natural mortality in wild horse populations. There are two basic reasons for including this type of study with our research priorities. First, an understanding of mortality will enable us to more realistically project the rate of wild horse population increase. At the present time, wild horse population increases are being determined by one of two different techniques. One technique involves a comparison of the differences between two or more aerial counts. The other technique involves the addition of the foal crop to the adult population each year, similar to compound interest. Both of these techniques have serious problems which affect their validity. In the case of consecutive serial counts, the sources of error or bias associated with such counts have been thoroughly investigated on various types of animals by several researchers. Almost invariably, the errors in aerial counts can account for population increases without an actual increase ever taking place on the ground. In the case where the foal crop is added to the adult population each year, the obvious conclusion is that mortality is equal to zero. This is obviously a wrong conclusion.

The second reason for including a study of mortality among our research priorities relates to the fact that the wild horse is basically a non-consumptive resource. Because of this fact, it is not desirable to have a large number of excess horses being produced each year. Therefore, if we have a good understanding of the natural mortality which is occurring in wild horse populations, whether it be from disease, predators or simply old age, we can capitalize on that mortality in our management programs and avoid the costly removal of animals which would probably die in the near future anyway. In other words, let natural mortality harvest a portion of the excess animals for us.

At this point I would like to take a minute and tell you what BLM is doing in the way of wild horse research. At the present time, BLM is not funding any research contracts on wild horses. In 1974 we solicited research proposals on both wild horses and wild burros. We were able to fund two studies on wild burros but additional funds for wild horse research were not available. Although we have requested additional research each year since 1974, we still have not been able to obtain the required funds. The primary reason is undoubtedly related to the increased emphasis being given to the range management program as a result of the Natural Resources Defense Council lawsuit. As you know this lawsuit required BLM to prepare environmental impact statements on the grazing of livestock on public lands. The need for additional data upon which to base these impact statements has resulted in funds being diverted away from research on wild horses.

RESEARCH NEEDED ON WILD HORSE ECOLOGY AND BEHAVIOR TO DEVELOP ADEQUATE MANAGEMENT PLANS FOR PUBLIC LANDS

David W. Kitchen, Nancy Green, and Howard Green*

Introduction

Until passage of the Wild Horse and Burro Act of 1971 there was little interest in wild horses (*Equus caballus*) or asses (*Equus asinus*). Passage of the act increased interest in *Equids*, but has produced only sporadic research and little funding of research. Wild asses have received more attention due to the controversy over their role in desert ecosystems (Ohmart, *et al.* 1975, Carothers, *et al.* 1976, and Moehlmann 1974). Wild horses have received less attention than asses. Recent studies on them have emphasized food habits (Hansen 1976, Hubbard and Hansen 1976, and Olsen and Hansen 1976) and behavior (Feist 1971, and Feist and McCullough 1975, 1976). None of these studies were long term (e.g., 4-7 years or longer) and none related their findings to distribution, availability, or quality of forage which are clearly important to all aspects of ungulate biology (Estes 1974, Jarmen 1974, and Kitchen and Griep 1976). Therefore, virtually every aspect of horse biology is wide open for more research, both long and short term.

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Specific Research Needs

Distribution - National:

Most of the information on the current nationwide distribution of wild horses is in the form of agency reports by the Bureau of Land Management and the United States Forest Service. These reports need to be summarized and distributed more widely than they are currently. There is clearly a need for a review paper on wild horse numbers and distribution which should be published in a widely distributed journal.

Distribution - Local:

There is a clear need for information on the seasonal distribution of horses in various habitat types. For example, in Stone Cabin Valley, Nevada, Green and Green (1977) found that in summer and early fall some horse bands used only the wet meadows in the Kawich Mountain Range, others were found exclusively in the foothills, but most stayed in the Valley. The Greens (1977) also have data suggesting that some bands may move south of the Valley in late fall and winter (presumably moving onto the Tonopah Bombing Range), but return in spring. Other bands, however, are year-round residents of the Valley. Unfortunately their study did not include winter and little is known, on this or other ranges, about wild horse distributions at this time of year. Winter is a critical period and the condition of winter range and its use by wild horses is important in the assessment of overall horse ecology and range impact.

Little is known about seasonal movements of horses in relation to seasonal movements of other herbivores on the same range. Showing range use overlap at the same time of year is one necessary element for demonstrating competition between herbivores. Range use overlap in time between horses and other wild or domestic herbivores is especially critical in winter and needs to be studied to find the total impact of all herbivores on winter ranges.

Fencing may adversely affect both horse movements and movements of other wild ungulates using a particular range. Careful attention must be paid to the impact of fences on the seasonal movements by horses and other wild ungulates. Fences planned without regard to local and regional movements of pronghorns (*Antilocapra americana*), mule deer (*Odocoileus hemionus*), horses, etc. may adversely affect animal populations.

In summary, research should be conducted on the seasonal distribution of horses and other sympatric herbivores (e.g., deer, pronghorns, etc.) in relation to forage availability and habitat types.

Home Range:

Harem bands move within overlapping home ranges (Feist and McCullough 1976, Green and Green 1977). Home range size is variable and may be affected by harem size, quality and quantity of forage, water availability and distribution, and behavioral traditions (Feist and McCullough 1976, Green and Green 1977). Green and Green (1977) found that during spring and summer many harem band movements were explicable in relation to water sources. In the southern end of Stone Cabin Valley home ranges contained permanent water sources and the harem bands normally moved within a radius of 3-4 miles from these sources. However, when spring rains or snowfall occurred and water collected in natural depressions, horses extended their home ranges an additional four miles and fed in the area of these temporary water sources. Development of new permanent water sources on ranges would probably be beneficial, and if horses establish a tradition of using them this could lead to a more even distribution of horse use on a range.

Food Habits:

Food habits of wild horses have been studied, but not correlated with food availability or forage distribution. Only one study of horse food habits to date has assessed them in relation to nutrient quality and distribution of forage (H. Green in prep.). No studies have dealt with food selection or availability of forage and horse food habits. We know that most ungulates move in response to local and seasonal shifts of forage abundance, availability, and nutrient quality (Bell 1971, Estes 1974, Jarmen 1974, Kitchen 1974, Lamprey 1963, and Talbot and Talbot 1963). Studies that evaluate and correlate food habits with seasonal changes in distribution of forage, etc. are required to develop an adequate management plan for wild horses. Similar studies are needed for other wild and domestic ungulates that share ranges with wild horses so stocking rates for all herbivores can be computed that will allow recovery of ranges.

Comparison of nutrient quality of forage and food selectivity by horses would be very useful. It is generally held that African *Equids* utilize coarser, less nutritious grasses than other sympatric herbivores (Bell 1971, and Lamprey 1963). Whether this is true for wild horses in North America is unknown. If this is the case, then even if horses eat the same plant species as other ungulates, competition would be lessened if horses selected lower quality forage (e.g., grasses, etc. that are in a different stage of dryness). In fact it may allow a more efficient use of a range if a broader spectrum of herbivores grazed an area. This is clearly the case on African plains and savannahs (Bell 1971, Estes 1974, Jarmen 1974, and Lamprey 1963). Given the great diversity of herbivores in the Pleistocene of North America it is likely that this fuller use of plant biomass was also the case on this continent in the past.

Exclosure studies on existing horse refuges in Nevada and Wyoming would help clarify the impact of horses on various vegetation types. Domestic stock, however, must be excluded or they will confound the results of such studies.

A basic question related to stocking rates and evaluating horse impact on ranges is: How much does a *wild* horse eat? There are no studies that show what a wild horse needs in terms of quantity of forage. Generalizing from studies on domestic horses is probably not valid, as domestic horses have been bred for large size and consequently may require more forage than a wild horse. Wild horses show some of the effects of natural selection and reversion to the wild, more normal type *Equid*. They are smaller and have larger heads with more massive jaws. It is likely they not only require less forage, but also make better use of coarser forage than domestic horses.

Studies of wild horse impacts on watersheds need to be conducted and, in particular, erosion and siltation of streams should be looked at critically. This would require exclusion of domestic stock from the study site for 1-4 years so that the impact of horses alone can be assessed fairly. Pre-exclusion studies are required since most of the current damage to watersheds and ranges is the result of many decades of over-grazing by domestic stock and not just a recent increase in wild horse numbers.

Population Dynamics:

Proper management of wild horses requires adequate information on population dynamics, including an overall population estimate and data on sex and age ratios. Censusing wild animals is at the best an inexact science. If some combination of aerial counts and ground censuses are carried out by people familiar with an area and individual horses in the population, a reasonably accurate census ($\pm 10\%$) of a population is feasible. It is likely that growth rates and sexual maturity of horses will vary from area to area based on forage quality and abundance. Therefore, each observer for an area must be familiar with the conformation of the various age classes for that area or age classifications will be inaccurate. The assumption of only one adult male per band is not valid for all areas, and multiple stud-harem bands and bachelor bands are not uncommon (Feist and McCullough 1975, Hall 1973, Green and Green 1977, and S. Thompson pers. comm.).

In areas where horses are trapped at waterholes, a careful record of the age and sex composition of a harem band should be kept. This will provide vital data on age and sex ratios. However, estimates of foal production based on bands captured in traps at waterholes are almost certainly too high. Lactating mares with their foals may visit water holes more often than bands without foals. Therefore, the probability of being trapped is higher for bands with foals, resulting in high estimates of foal production. Comparison of foal production data gathered from bands trapped at water holes in Stone Cabin Valley during spring and summer, 1976, showed a foal crop approximately 80% higher than that estimated from censuses of the entire Valley (Green and Green 1977).

Inbreeding is often cited as a problem in wild horses, but this is probably not true. Changes in conformation from characters deemed desirable by domestic breeders (e.g., small heads, small jaws and muzzles, large body size, etc.) is not so much evidence for inbreeding as it is for natural selection. Reversion to a wild type *Equid* better adapted to survive in nature seems a more reasonable hypothesis than inbreeding.

Gathering adequate natality data on a wild animal is a formidable task. Any estimate of actual births will be low, as mortality among the young of most mammals is high in the first few days of life (Caughley 1966). Their small size makes them hard to find and they are usually scavenged within hours of death by a variety of animals. Studies of known mares and their lifetime productivity would be the most useful way to proceed in gathering natality data. Green and Green (1977) have data which suggest mares may foal in successive years only if weather conditions are favorable for forage production. Physical parameters, such as rainfall, have been good predictors of fawn crops in pronghorns (Beale and Smith 1970) and foal crops in zebras (*Equus burchelli*) (Klingel 1969a). Thus, there are a series of associated questions to answer concerning natality:

1. How often does a mare in good (bad) condition foal?
2. How does natality vary with changes in moisture, etc.?
3. What is the energetic cost to a mare of foaling and lactating?
4. How does foaling affect mare mortality rates?

All of these questions have a direct bearing on a mare's nutritional requirements and survival, and, therefore, her impact on a range.

There are virtually no mortality data for wild horses and this is essential to understanding their population dynamics. Unfortunately mortality is difficult to assess as dead horses are not easily found. Most dead horses are found more by accident than by careful inspection of areas. Efforts should be made to monitor tagged animals or uniquely marked individuals to determine the mean life expectancy for stallions and mares. Regional efforts to verify tooth wear for wild horses would be useful for getting age data from carcasses.

Behavioral and Social Organization:

Behavioral studies that follow the methods outlined by Altmann (1974) will provide an activity budget, thereby providing critical data concerning the energetic requirements of wild horses. Comparative studies of foraging behavior of wild horses and sympatric herbivores could help determine if competition for forage is reduced by differences in grazing behavior. A study of this type has been conducted for cattle and pronghorn (Ellis and Travis 1975), and similar methodology could be used to compare wild horses and other large ungulates on the same range.

Studies of wild horse behavior will provide good data on most of the ecological research needs outlined earlier in this paper. Home range and habitat use are best studied directly using behavioral methods. Age structure and foal production data are more accurate when gathered as a part of daily behavioral observations than by occasional censuses. Animal minute studies (Buechner 1947) can be combined with other food habits data to get a better picture of horse food preferences. Local movements and distributions will be delineated more clearly by a behavioral observer who spends many hours actually watching the animals than by any other means at our disposal. Clearly food and habitat selectivity are behavioral studies (Klopfer 1969).

Wild horses have a stable harem band social system similar to that reported for plains zebra (Klingel 1969b), and for Sable Island (Bruemmer 1967) and New Forest ponies (Tyler 1972). There are now good descriptions of behavioral acts used by horses and some quantification of their use by different age and sex classes (Feist 1971; Feist and McCullough 1975, 1976; and N. Green in prep.). Wild horses show the conservative nature of social evolution in *Equus*, as clearly several thousand years of selective domestic breeding by man has not significantly altered their basic social system (Feist and McCullough 1976).

Equids are one of the few ungulates that have a true harem breeding system, and zebras (Klingel 1969b), wild horses (Feist 1971; Feist and McCullough 1975, 1976; and Green and Green 1977), ponies (Bruemmer 1967, and Tyler 1972), and vicunas (*Vicugna vicugna*) (Koford 1957, Franklin 1974) are the only ungulates known to have a year-round harem system. Determining the ecological correlates for the evolution of harems is an important facet of the study of ungulate sociobiology. None of the recent attempts at correlating ungulate social systems with ecological data has dealt adequately with *Equids* (Estes 1974, Jarmen 1974, and Geist 1974).

Pronghorns show a variable social system that ranges from territorial to a loose system of dominions (Kitchen and Griep 1976). The variability of social behavior in different parts of pronghorn range in the United States seems to be correlated with habitat types and associated abundance and nutrient quality of the available forage. Horses seem to have some variability in their social system in terms of group size and number of adult males per harem and this may be related to differences in forage and habitat type. To date there are insufficient behavioral studies from enough different areas to document this possibility.

Behavioral studies also will provide data on gene flow and inbreeding, which are often cited as causes for removing wild horses from a range. In a good behavioral study, individually known animals are followed through time and in space so that their movements are known. This provides not only data on shifts in harem membership, but also information on habitat use and even food habits. From the short-term studies of Feist (1971), Feist and McCullough (1975, 1976), and Green and Green (1977) it appears that most changes in harem band composition result from immature mares changing groups. This indicates that inbreeding is probably a negligible problem in wild horses.

Studies done to date suggest that adult mares remain in a particular band for several years and only shift to a new harem when a stallion is defeated or dies. This would provide additional out-breeding in the population. It also means that a harem provides a stable social environment for adult mares and foals. A harem system that is stable in time provides a unique situation to study the possible roles of parental investment (Fisher 1930, Trivers 1972, 1974), kin-selection (Maynard-Smith 1964; and Hamilton 1964), and, perhaps, even parental manipulation of children (Alexander 1974) in the evolution of sexual dimorphism and social systems.

Summary

A vast amount of research is needed on all aspects of wild horse behavior and ecology. These studies must be integrated in approach and include:

1. basic resource inventories by habitat type
2. range productivity by habitat type
3. distribution and local movements of all ungulates in an area
4. home ranges and habitats used by horses
5. distribution of water sources and their use
6. population data (numbers, natality, and mortality at least)
7. basic observations of behavior (social and ecological)

The controversial nature of the role(s) of wild horses on ranges, the political problems involved with managing horses, and their importance to basic ecological and sociobiological theory makes it imperative that integrated studies in as many locals as possible be started immediately.

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THE WILD HORSE POPULATION OF STONE CABIN VALLEY, NEVADA: A PRELIMINARY REPORT

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Introduction

In Summer 1975 and Spring and Summer 1976 we studied the wild horse population of Stone Cabin Valley, Nye County, Nevada. Stone Cabin Valley covers over 380,000 acres and, at the beginning of the study, supported one of the largest wild horse populations in Nevada. The primary objectives of our study were: 1) to determine the number of wild horses in the Valley and gather data on sex and age composition and recruitment; 2) to evaluate habitat utilization in relation to forage quantity and quality, including determination of home range size, movement patterns, and food habits, and 3) to study social organization and behavior. This report is a preliminary analysis of our data.

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Methods

Data was collected June 15-September 25, 1975 and March 10-May 25, 1976. At monthly intervals in June, July, and August 1976 we returned to the Valley and spent 3 days collecting census and distribution data, and clipped forage samples for nutrient analysis.

A 110 mile census route on established roads was used during Summer 1975 to determine the number and distribution of wild horses in the Valley. Stops were made at regular intervals and, using 20 power spotting scopes, the surrounding area was scanned and all horses counted. The sex and age of individuals was recorded when possible. The distribution of horses was plotted on grid maps of the Valley, and the number of horses in each vegetation type was determined.

Data on sex and age ratios were gathered by making detailed descriptions of as many bands as possible. This was a difficult process as it usually was not possible to get within 300 meters of a band without causing flight. Distinguishing between immature (2-3 year old) and adult horses was especially difficult; therefore the immature age class data are included in the adult category in this report.

Detailed descriptions were made of the color and markings of each horse in a band. Each band was assigned a number and a band list index was developed to provide a rapid means of determining which bands had been described. Home ranges of several bands were determined by recording the date time, and location of the bands each time they were observed.

Samples of fresh fecal material were collected in various vegetation types during the study. Food habits data are being analyzed by the Composition Analysis Laboratory at Colorado State University, and results will be presented in a separate report (H. Green, in prep).

The "instantaneous" and "all-occurrences" methods (Altmann 1974) were used to collect over 500 hours of detailed notes on wild horse behavior.

Results and Discussion

Population Size

Census data for Summer 1975 range from a low of 538 horses seen on July 4, 1975 to a high of 786 counted on July 17, 1975. The average number of horses seen was 703. It is likely that we missed seeing horses that were lying down as they were very difficult to detect at distances greater than 500 meters, especially if they were bedded in vegetation more than one meter high. Not all areas were equally visible from the census route due to the rolling topography in portions of the Valley. Thus our data are a minimum estimate of the horses present in the Valley.

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Foaling

Most foals were born between mid-March and mid-June. In 1975 we found 12 foals per 100 adults. About 50% of the mares did not have yearlings or foals with them. Almost without exception, mares with young had either a yearling or a foal, but not both. We do not know if this is because they did not breed the previous Spring (an unlikely alternative), aborted during pregnancy, or lost foals at or soon after birth to various mortality factors. Mares with foals or nursing yearlings were thin even at the end of Summer when the other horses had gained weight. It would be difficult for these mares to successfully overwinter since Winter and early Spring forage is in short supply. Mares unable to meet the energy demands of pregnancy probably abort or give birth to weak foals susceptible to mortality factors.

In Spring and Summer of 1976 we found 10 yearlings per 100 adults, indicating that some mortality among foals does occur during Winter.

The foal crop in Spring 1976 was considerably higher than that in 1975; a Bureau of Land Management (BLM) aerial survey conducted in September 1976 found 18 foals per 100 adults (M. Hedrick, pers. com.). Our data indicates that given relatively high moisture and subsequent improvement in forage, mares may raise foals in successive years. That they do not successfully foal each year is most likely due to variations in weather and forage conditions. Similar findings have been reported for the Plains zebra (Klingel 1969a).

Sex and Age Ratios

Detailed descriptions of 61 bands (321 horses) were obtained by repeated observations of groups. Band size averaged 5.3 horses and ranged from 1 to 15. Of the 248 adults, 53% were females and 47% were males. The number and percent of horses in each category is given in Table 1.

Table 1. Number and percent of horses in each age category for 61 bands. Summer 1975.

	Adult Males	Adult Females	Yearlings	Foals	Total
Number	117	131	44	29	321
% of total	36.4	40.8	13.7	9.0	

In Summer and Fall 1975, BLM trapped and removed 209 horses; 54% were females and 47% were males, essentially identical to our findings.

Mortality

Incomplete skeletal remains of seven adult horses, 3 males and 4 females, were found in the Summer of 1975. Most of the skeletons obviously had been lying exposed for several years and an exact determination of the cause of death was not possible. The mandible of one male skull was cracked and it is possible that the horse had difficulty feeding and may have starved. A cracked mandible would most likely result from receiving a rear kick from another horse during a fight.

Mortality among immature and adult horses is most likely the result of poor nutrition, disease, old age, or injuries sustained during fighting. We observed numerous aggressive interactions between stallions, but most were highly ritualized and did not involve injury to either participant. However, some fights between stallions included biting and kicking, especially during the Spring of 1976 when mares were in breeding condition. It certainly is possible that blows sustained during such fights could result in broken bones or internal injuries sufficiently damaging to cause death.

In March of 1976 most of the horses, especially mares with nursing young, were very thin. Forage availability was limited in both quantity and quality during Winter. Pregnant mares and those nursing young have high energy requirements and failure to meet these energy demands undoubtedly is a source of mortality. A dead mare was found at a water hole on March 12, 1976. She was extremely thin, her ribs and hips protruded. In April we found a mare lying near a water hole, she was unable to stand. There was a small amount of dried blood on her hind legs. She was very thin and appeared to be in shock; she made no attempt to move when approached and did not respond to the approach of her foal. The foal, a filly, was judged to be about two weeks old. It was not possible to determine the cause of the mare's condition. She may have had trouble giving birth and finally became paralyzed, she may have been kicked and paralyzed by fighting males, or perhaps she was undernourished prior to having her foal and nursing was simply too great an energy drain on her. It was our judgment that she could not be saved. BLM personnel concurred in this judgment and the mare was shot. We took care of the foal for several days until she could be transported to the BLM corrals at Battle Mountain. Without our intervention the foal certainly would have died.

Four old solitary horses were observed and were obviously in poor health. Their movements were lethargic and they seemed unable to raise their heads. It is possible that these animals were unable to obtain sufficient forage

due to tooth wear. Most of the forage is covered with grit and is highly abrasive, and tooth wear in old horses may lead to starvation.

Most mortality seemed to occur among foals. We found carcasses of four foals. Three had sanded hooves, and one had no exterior signs that indicated cause of death. Several lame foals were observed who probably had sanded hooves. Sanding is a condition in which the sole of the foot cracks and sand and rocks collect in the hoof, causing lameness. Lame foals have difficulty staying with their bands and often lag behind by as much as 300 yards. On July 4, 1975 we found a filly lying by a water hole. There were no other horses in sight for at least three miles; she apparently was abandoned by her band. She had three sanded hooves and could barely stand or walk. We suspect that many sanded foals do not recover and, unable to keep up with their bands, are abandoned to die.

Another source of foal mortality involves problems during or shortly after birth. In April 1976 we found an abandoned colt which was not more than 48 hours old. He was extremely lethargic and constipated. Intestinal blockages are not uncommon among newborn domestic foals and can result in death if not treated. We immediately gave the colt water and transported him to our camp. We were able to correct the constipation problem and the colt eventually was adopted by people from the East Coast. It is difficult to determine how often intestinal blockages or similar problems occur, but they are clearly a mortality factor among foals.

A total estimate of foal mortality is difficult to derive since most carcasses are scavenged quickly by coyotes and birds. Also, we were limited to finding carcasses visible from the road or near our vegetation transects.

In summary we found the following sources of foal mortality: death of the mother when the foal was young and dependent on her milk, leading to subsequent death of the foal; lameness; and intestinal blockage or other internal problems during or soon after birth. All of these are natural mortality factors. High mortality among the newborn of most species is a common phenomenon (Caughley 1966).

Social Organization and Behavior

The social organization of wild horses is very similar to that of the closely related Plains zebra (Klingel 1969b). The basic unit of social organization is the harem band, usually composed of one adult male and one or more adult females with their offspring. Of the 53 harem bands described in detail in 1975, 24 (45%) contained more than one adult male (note that we have combined the immature and adult age classes so the actual percent of bands with more than one adult male is lower than what is indicated by our data). In the Spring of 1976 we obtained detailed descriptions of 67 harem bands, 36 (54%) of which contained more than one adult male. We found that in harem bands with more than one adult male, one stallion was consistently the harem master.

Several bachelor (all-male) bands were observed in 1975, ranging in size from one to four horses. Bachelor bands were composed of adults or adults and immatures, but never contained yearlings or foals. A few adult males were solitary.

The harem bands tended to be stable in composition in terms of adult members. We were able to re-locate many of the bands we saw in 1975 in the Spring of 1976 and most of them had not changed in number. Changes in band composition were usually the result of immature horses leaving their original band. We documented such changes for two distinctly marked young mares. Also, in late Summer 1975 we found that yearling females sometimes approached and fed with other harem bands, usually close to the other harem stallion; they returned to their own band after five to thirty minutes. Harem stallions did not attempt to prevent this type of movement by yearling females in the Summer, but did attempt to prevent it during the Spring breeding period by herding females of all ages back toward the harem if they strayed. Feist (1971) found that immature females accounted for most of the changes in band composition he observed in the Pryor Mountain wild horse population, and concluded that stallions may not attempt to breed or hold their own offspring in the band. Most shifts of immature females, observed by Feist, occurred during the breeding period.

Klingel (1969a) reported that shifts between bands of zebras were usually the result of immature females being abducted by other harem masters or bachelors during the breeding period. He found that stallions tried to prevent such abductions but usually failed, especially if several stallions simultaneously attempted to abduct a young female. Thus, the change by immature females from their original harem band to some other band seems to be a common pattern in equine species. One effect of this behavior is that inbreeding is probably not a problem, as has been suggested in some of the wild horse literature.

Immature males were present in some of the bachelor bands. No instances of immature males being chased from their original band by the harem master were observed. We have no data as to how or why young males leave their original harem. Their presence was generally tolerated by the harem stallion, who rarely interacted with young males. Foal, yearling, and occasionally immature males showed a submissive gesture called teeth-clapping when they were close to stallions. Teeth-clapping probably serves to acknowledge the dominance of the stallion and may prevent aggression of stallions toward young males in the band.

Changes in harem band composition can occur for several other reasons. If the harem stallion dies the mares and other harem members may be adopted by another stallion. We documented this for one band: a stallion who already had a mare and 2-year-old son adopted two mares and their foals. He was aggressive toward the 2-year-old male from the new group, who eventually left. Band composition also changed as a result of a single harem being split by two stallions (two observations). Bands also may change if the harem stallion is defeated and driven away by another harem master or a solitary male. The new stallion takes over the harem.

Wild horses spend a vast majority of their time (about 90%) either feeding or resting. Large aggregations of bands feeding in close proximity were seen during Summer 1975. The density of horses during these feeding aggregations was as high as 90 horses per square mile. There was little inter-band aggression during Summer months. In the 1976 Spring breeding period, however, we saw many more aggressive interactions between harem leaders, and inter-band spacing was much greater than it had been the previous summer.

A detailed analysis of the behavior of wild horses, with emphasis on stallions, will be published separately (N. Green, in prep.).

Home Range and Habitat Utilization

The home range of one band often overlaps the home ranges of several other bands. We saw no evidence of one band defending any particular area or excluding other bands from their home range, nor did we see any evidence that any one band had exclusive use of an area, i.e. we observed no form of territoriality. Figure 1 shows the home ranges of five bands in Spring and Summer 1976. The size of the home ranges is quite variable: that of Band 218 was only 4.2 square miles, while Band 96 had a home range of 30.2 square miles. It should be kept in mind that these are Spring and Summer home ranges and do not include possible seasonal movements. If any of these bands migrate seasonally their home ranges would be considerably larger.

Most bands had a smaller area within their home range in which they spent most of their time; this is referred to as the maximum activity area. In the Southern part of the Valley (below Highway 6) each band's maximum activity area was located within three miles of a water source. Movements outside of the maximum activity areas were instigated for reasons which are not completely understood. The southern-most extensions of the home ranges of bands 86, 96 and 213 (Fig. 1) were the result of these bands moving out of their maximum activity areas in response to heavy rain or snowfall. On three occasions in Spring 1976 following several hours of rain or snow many of the bands which normally occupied the area around the South Central Water Hole, Haw's Canyon, and Haw's Trap moved to an area East of the Pond and Reed's Ranch (Figure 2). The area normally is grazed very little by horses even though forage is relatively abundant. Water is available at Reed's Ranch and the Pond on a seasonal basis, being turned off in Summer and Fall. It may be that this area is little used by horses, despite the good forage, because they have no way of determining when water will be available there. However, following heavy rain or snow large pools of water accumulate in shallow depressions. Many bands (as many as 150 horses) move South and feed in the area until the standing water dries up, at which time they return to their maximum activity areas.

In the North end of Stone Cabin Valley (North of Highway 6) the distribution patterns of horses are different. Several water sources are available all year (Fig. 2). However, most are located in areas of very poor forage (in some cases this seems to be due to over-grazing by cattle around waterholes), and the area of maximum concentration for most bands is located several miles from the water sources in an area of better forage. These bands travel up to 7 miles each day to water.

These data suggest that at least two environmental factors, water and forage availability, influence the distribution of horses.

In the southern part of the study area most horses stay in an area where both food and water are available (Figure 2) and move South to take advantage of better food sources when water becomes available in those areas. In the North end of the Valley where there are no locations with both ample forage and water, the maximum concentration of horses is found in areas of good forage and the horses travel longer distances to water.

Within the Valley there are three broad habitat areas: the valley floor, the foothills and mountains, and the mountain meadows. The valley floor, which covers a majority of the study site, is an area of relatively flat topography vegetated primarily by low brush species such as *Atriplex canescens* (four-wing saltbush), *A. confertifolia* (shadscale), *Tetradymia glabrata* (horse brush) and perennial grasses such as *Hilaria jamesii* (galleta grass) and *Oryzopsis hymenoides* (Indian rice grass). Surrounding the valley floor on three sides are foothills primarily vegetated by *Artemisia tridentata* (big sage) and *A. nova* (black sage); the foothills grade into the mountains where Pinyon and Juniper trees are dominant. At several locations in the mountain ranges there are meadows primarily vegetated by sedges and annual and perennial grasses.

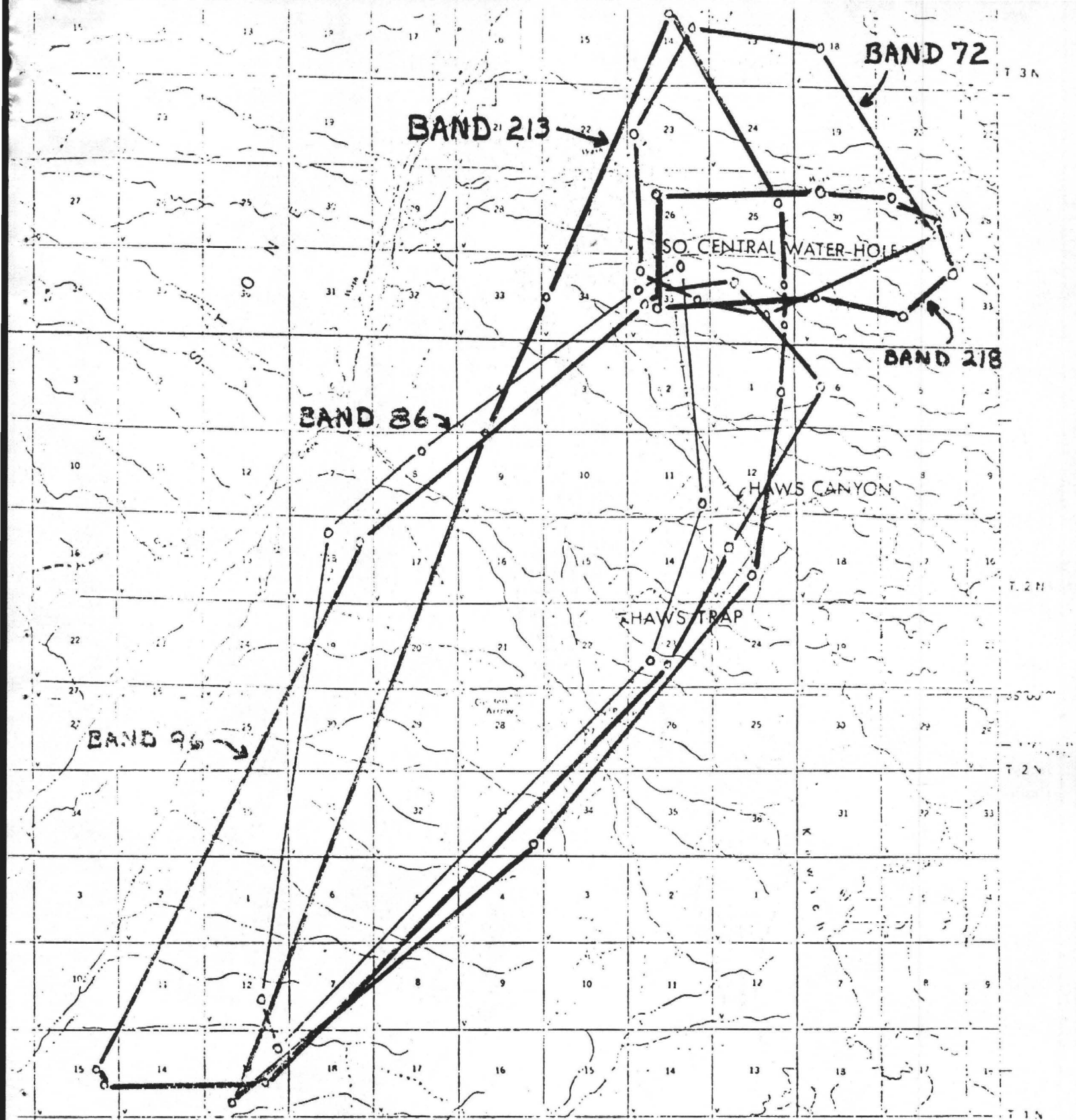
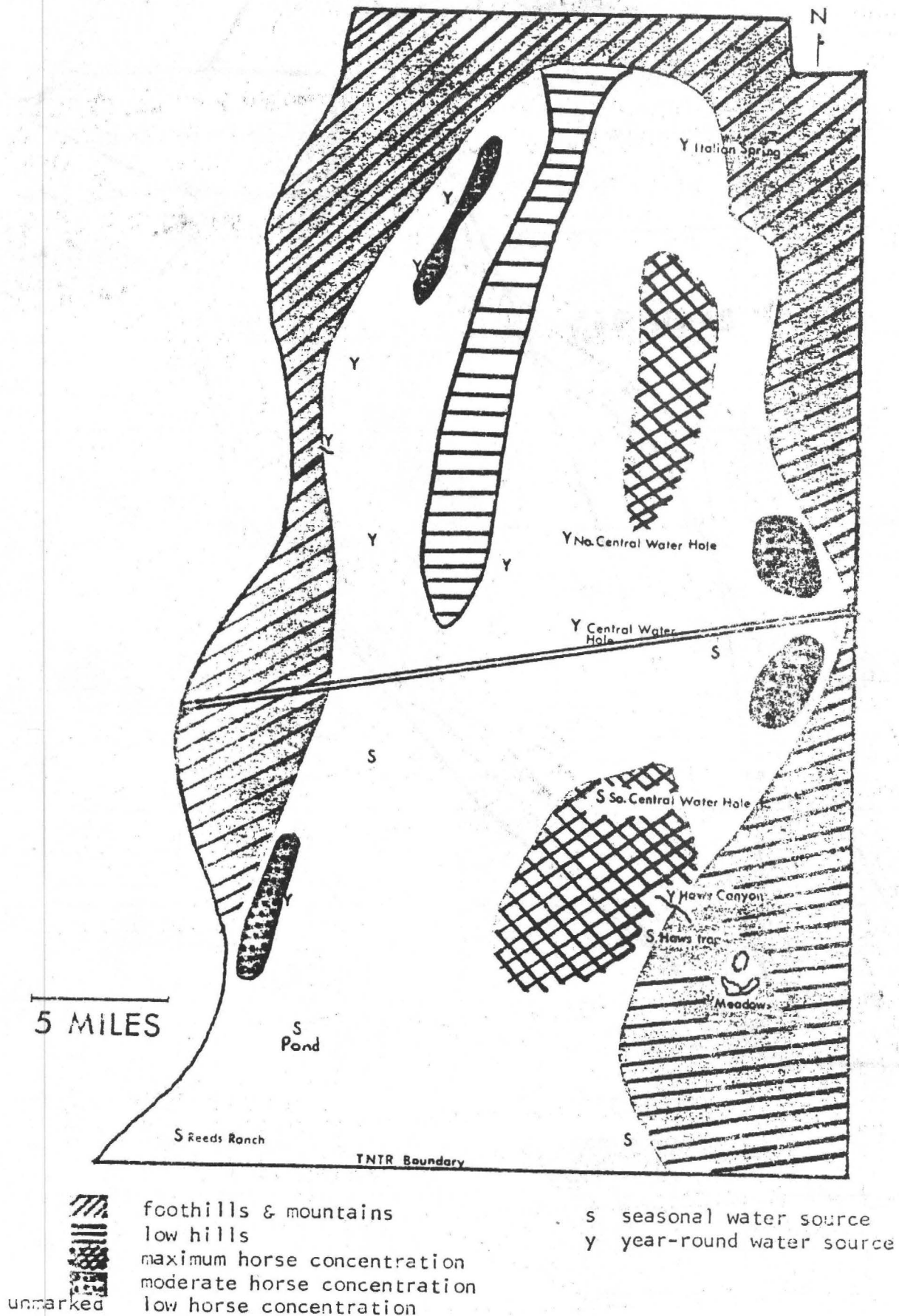


Figure 1. Home ranges of five bands, Spring and Summer 1976.

Figure 2. Habitat utilization by wild horses in Stone Cabin Valley. Summer 1975, Spring and Summer 1976.



Most of the horses inhabit the valley floor. Meadows have small populations of horses in Summer. The rest of the mountain areas are lightly populated by dispersed bands of horses. The bands occupying each of these broad habitat areas showed a remarkable fidelity to their area during the period of the study. Valley horses were not observed in meadow areas, and valley bands did not move into the mountain areas further than the first low foothills. Correspondingly, bands which occupied the meadow areas were not observed in the valley floor.

SEASONAL MOVEMENTS

Due to the short time span of this study few direct observations of seasonal movements were obtained. Indirect evidence of seasonal movements suggests that some North-South migration does take place. Ranchers in the Valley and others who have observed the horse population levels on a year-round basis agree that there are many fewer horses present in Winter than in Summer. On our first census in the Spring of 1976 (March 29) relatively few horses, 221, were seen. This low population level was still evident on the second census made on April 8, 1976 when only 204 horses were counted. As the season progressed more horses were counted on each census: April 19 - 334 horses; April 28 - 527 horses; May 8 - 446 horses; May 18 - 570 horses; June 18 - 315 horses; July 18 - 317 horses; and August 18 - 395 horses. (The decrease in the census numbers in June, July and August probably was due to the trapping operation which removed 205 horses from the Valley between May 20 and June 29, 1976.)

These census data indicate that at least some of the bands spend the Winter in places other than Stone Cabin Valley. Some of the bands with which we were familiar in the Summer of 1975 were not observed in the Valley until late in the Spring of 1976, after which they were observed frequently. Their sudden reappearance in the Valley indicates that they probably had returned to the Valley from some other location. Other bands which we had described the previous Summer were present in the Valley early in the Spring of 1976 and remained there at least through August, when our study terminated. These data indicate that some of the bands stay in the Valley year-round, while others make seasonal movements to other areas.

Stone Cabin Valley is bordered on the North, East and West by moderately high mountains vegetated by Pinyon and Juniper trees. The mountains appear to act as ecological barriers to horse movements. To the South the study area is bounded by the Tonopah Nuclear Test Range (TNTR). There are no fences or other barriers and the horses are free to move on and off the TNTR. Individuals who are allowed on the Test Range report that the horse population there is high during Winter. We made one trip South of the Test Range boundary in the Summer of 1975. There were few horses south of the Stone Cabin Valley-Test Range boundary. These data suggest that some of the horses which spend late Spring and Summer in the Valley may spend the Winter on the Test Range to the South. This is further supported by a series of observations made of Band 500 during Spring 1976. Band 500 spent the entire Summer of 1975 in a mountain meadow area in the Kawich Mountain Range, east of the Valley. During the entire Summer of 1975 we never observed these horses outside of the immediate meadow area. On April 29, 1976 we observed Band 500 in the main Valley area, 6 miles southwest of the meadow and 7.5 miles north of the Test Range border. For the next several days we observed the band slowly move further northeast, closer to the meadow. On May 10 the band was observed in the meadow, where they remained for the Summer. The meadow area was covered with snow for much of the Winter, forcing horses out until Spring. From our observations of the direction from which Band 500 returned to the meadow, it is likely that they were coming from the Test Range.

Seasonal movements are probably a response to both water and forage availability. It is our opinion that due to the lack of water and forage on the Test Range, many horses spend the Summer North of the TNTR, in Stone Cabin Valley. In winter, snow is sometimes available to eat and snowmelt water is available in natural catchments, thus eliminating lack of water as a hinderance to southern movement.

A detailed analysis of the distribution of horses in relation to the quantity and nutrient quality of forage will be published separately (H. Green, in prep.)

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CHAPTER VIII - EDUCATION AND COMMUNICATIONS

STATEMENT BY ANTHONY AMARAL, AUTHOR AND LIBRARIAN Santa Barbara, California

The wild horse is today a curious paradox. As the most poetically rendered image of the Old West, and of things wild and free, he is also an anachronism; living a way of life when practically all conditions for that way of life on the range have long past.

This is not a new condition for the wild horse. In his heyday, on the Great Plains, his vast numbers came into conflict with the Trans-Mississippi destiny of settlers and builders and was very much wiped-out. He was, then as now, a thing of the past, but very much of the present.

But today, public protests for his protection no longer allows indiscriminate and frequently savage means to his removal. And although the wild horse may today, for some, represent a sort of "after-glow" of what once was the old West (a tenuous romance at best), other voices from the cattle industry, wildlife agencies and public land managers reflect other points of view for a society that is overwhelmingly industrialized, urbanized and moving westward with all its ramifications vis-a-vis the public range.

Another way of looking at wild horses is as a specie of wildlife, "a brethren to the buffalo, the longhorn, or the antelope." True enough. All vivified something wonderful about the past on the Great Plains and west of the Rockies. But illogical is the comparison when it is extended. First, the antelope (and deer) are managed--not protected--and herds are kept to reasonable numbers. Secondly, the buffalo and longhorn have long since been relegated to the preserve compound. Moreover, their previous life-style would no longer be acceptable today.

Again, a paradox: The wild horse can't be placed in a fenced preserve, certainly not a small one. In due course (with the American propensity for taming down zoo animals with hand-outs), the wild horse would inch its way for carrot and apple slices and domestication. He would no longer embody that special essence that belongs to the wild ones. The horse that is wild needs great expanses, without which he is de-mystified.

This represents one side of the wild horse debate. It is an emotional point of view difficult to intellectualize. Nonetheless, it speaks silently from a feeling, a sensation that alerts the senses and gives an electrified life just from seeing wild horses, or just to know they are there, somewhere in the hills.

But how can this feeling be defined or justified to the other point of view (and a strong argument) which stems from vested economic interests in the range, managerial or as investment? How does one express those emotions without being jeered at as a sentimentalist, when the word itself is suspect from many quarters? Yet, few things are absolutely true in this world, and it may well be that sentiment is something humane and kindly and not to be disparaged.

Myopic glazing of the eye or mind is, however, something else. I am as opposed to this condition, which sees the horse inviolable on the range, as I am to the steel-braced opinion that cannot tolerate horses on the range. The avid mustang-lover has a point of view, but which needs a more realistic sympathy to the problems of range management today. And his avid opposite could use at least one layer of rose tint when next he seeks, through his rifle sight, to stop the trespass by a wild horse.

The paradox continues, with the weight of statistical reality forming another point of view. Can the wild horse be allowed to roam unmanaged on western ranges when management--like everywhere else--is an underlying philosophy? When population expansion, agricultural and wildlife demands, intense use by livestock (all of which return an economic advantage), water shortages and a growing evidence of climatic changes, are further arguments against wild horses?

These points of view generally represent the major opinions. They are now over a decade old, but with a tap root in Nevada going back about 100 years. Then, as now, these colliding points have often made more news in Nevada than ordinary politics.

Thus it seems to me that points of view adopted have failed by drawing sustenance for their arguments from sources which favor their argument. To quote Dobie's, *THE MUSTANGS*, as a paean without an awareness of latest range management findings in the "Journal of Range Management" is provincialism. Conversely, the point of view that quotes solely statistical percentages of seasonal diets of ungulates on the range to disprove the presence of the horse, and without understanding that other point of view, is also provincial.

These romantic and statistical points of view need more crossover, for which this symposium is designed. Hopefully, a mutual empathy will emerge, and another point of view which will insure that certain numbers of horses will at last be allowed to live, managed and controlled, but with a protection honored by all.

The horse, at least, deserves an end to harassment.

PRESENTATION BY INTERNATIONAL SOCIETY FOR THE PROTECTION OF MUSTANGS AND BURROS AND WILD HORSE ORGANIZED ASSISTANCE

Dawn Y. Lappin*

Education is the tool used to promote a better understanding of the resources available, the means to use our voices in a manner that promotes good public response to those agencies who hold the public lands in trust for all citizens. Education is a necessity in the long-range solutions to the past and present ills suffered by the public land resource. Only when people are aware of situations are they able to deal with them effectively.

Methods of education that are used by ISPMB and WHOA! are as follows: *PRINTED MATTER* - WHOA! responds to approximately ten to twelve thousand requests a year for informative material. This material consists of protective laws, the implementation of those laws; historical material pertaining to the wild horses; research; pictures; statistics; printed articles; and informational material pertaining to the horse.

ISPMB responds to approximately ten thousand requests a year for past legislation pertaining to the wild horses and burros; to proposed legislation; and the history of the wild horse and burro movement.

MEDIA - WHOA!'s assistance in providing background material for magazines, films, slides, posters, radio and television, has generated huge numbers of requests for consultation from the media family. Information, statistics, and relevant material compiled over a period of two decades makes WHOA! an authority that can provide the history and present situations dealing with the wild horse issues.

ISPMB's pleas for public response are generated from the medias. Attitudes, issues, positions are constantly being sought by the free press in order to more accurately cover the issues at hand.

PERSONAL REPRESENTATION - Both WHOA! and ISPMB respond to requests for programs in individual schools, meetings, symposiums, educational time and assistance in horsemanship programs, research, emergency assistance and rescue. These programs are supplied by WHOA! and ISPMB staff members.

WHOA! and ISPMB representatives attend land planning meetings, workshops, hearings. Requests by the managing agency for written comments on environmental assessments, analyses, and proposals, are proof that both organizations are committed to the welfare of wild horses, burros, wildlife, and the resource. Recognition of improved attitudes by the managing agency responsible for the welfare of the wild horses and burros and open condemnation to those who refuse to recognize the legitimate use of the public land resource by the wild horses and burros.

WHOA!'s involvement in the adoption program has served as another avenue of education in the issues related to the wild horse and burros. The active implementation of the Wild Free-Roaming Horse and Burro Act (PL 92-195), subsequent alternatives to destruction. Many of the adopted horses have become good-will ambassadors for the wild ones. Through them WHOA! is able to bring the story of the wild horses to the American people.

ISPMB serves this program by promoting interest in adoption. It also has written and verbal recommendations to the agencies' regulations in the implementation of PL92-195 and its' amendments.

PUBLIC RELATIONS - Education would be remiss to eliminate the public's responses in the assessment of issues relating to the wild horses, those desires are evident in the mail received by both organizations, the managing agencies, and the medias. Responsible citizens are demanding that aesthetic values are considered, that not everything that exists on the public land resource be of monetary value.

Apathy towards issues are evident when the public is not informed. Certainly through education, the reluctance to become involved is greatly reduced. It has been favorable in the past to thwart public involvement by the opposition. However, through education of past abuses, we are able to invite the commitment of environmentalists, conservationists, and protectionists, into reversing prior practices into good, solid management practices, and in the long range, to the benefit of all users of public land, whether they be livestock operators, rock hounds, wildlife enthusiasts, hunters, or those of use concerned over the welfare of wild horses and burros.

Seventy-five percent of our budget goes towards educational programs. It is the desire of WHOA! and ISPMB that all Americans participate in the processes of rehabilitation of our western rangelands, and not to the betterment of any one species. We promote these ideas and recommendations through education. Public interest, backed by public pressure, helps get the job done. A recent example; the proposed killing of the Grand Canyon burros, which Secretary of Interior, Cecil Andrus suspended on March 25th of this month. He acknowledged there was strong public reaction to the federally planned future for the Grand Canyon burros. It is a step in the right direction. They finally see the light that the public would like to see burros in their parks as well as other wildlife.

*Adoption Director, WHOA, P.O. Box 555, Reno, Nevada

THE BUREAU OF LAND MANAGEMENT WILD HORSE AND PUBLIC AFFAIRS PROGRAM Carl Gidlund*

The Bureau of Land Management's wild horse and burro public affairs program has two objectives:

- To explain, through an intensive educational effort, the Bureau's management responsibilities under the Wild Horse and Burro Act, and the need for an ecological balance which must exist for the benefit of horses, burros, wildlife, livestock, and the habitat;
- To increase the number of bonafide applicants under the Bureau's Adopt-A-Horse Program.

In order to achieve these objectives the Bureau has undertaken a number of projects:

1. Developed a standardized application and central applicant file to eliminate competition between States and districts for custodians.
2. Sent letters to and held meetings with representatives of major horse protection and humane groups, explaining our agency's problems and efforts and inviting cooperation.
3. Conducted "show-me" trips for members of the National Wild Horse and Burro Advisory Board, State and local advisory boards, protection organizations, interested citizens, and news media representatives.
4. Publicized roundups and placement activities through national and "home town" press releases.
5. Prepared and disseminated to stations across the nation two 30-second adopt-a-horse television public service announcements featuring Amanda Blake.
6. Sent taped public service announcements to 2,800 radio stations and scripts to 5,000 stations.
7. Sent 500 TV newsclips, "Wild Horse Foals Born in Maryland."
8. American portrait TV public service announcement on wild horse program has been sent to 500 stations.
9. Prepared and disseminated pamphlet "So You Want to Adopt a Wild Horse."
10. Purchased and published 150,000 copies of "Thank You for Helping Us," a story for young people about the management of wild horses.
11. Reprinted and distributed 100,000 copies of "The Wild Horse on the National Resource Lands," from the spring 1975 issue of *Our Public Lands*.
12. Prepared and distributed 150 copies of the motion picture "Dapples and Grays, Pintos and Bays."
13. Featured wild horse issues and problems on NBC-TV's "Today" show and the "ABC Evening News."
14. Assisted reporters who developed stories on the issue for many local and national publications, including the "New York Times," "Wall Street Journal," "Los Angeles Times," "San Francisco Chronicle," "Denver Post," and the "Chicago Tribune."

SELECTIVE MAJOR LITERATURE RELATING TO WILD HORSES Anthony Amaral**

HISTORICAL

Historical accounts are numerous although most emphasize the era of the wild horse on the Great Plains. *THE MUSTANGS*, by J. Frank Dobie (Little, Brown 1952), *THE WILD HORSE OF THE WEST*, by Walker D. Wyman (Caxton, 1945), and *THE INDIAN AND THE HORSE*, by Frank Roe (University of Oklahoma Press, 1951) are the best which also include considerable bibliographies.

For younger readers, *AMERICAN WILD HORSES*, by B. F. Beebe and James Johnson (David McKay, 1964) is an excellent introduction about wild horses, their descendants, and some of the problems of their management today.

For an overview about horses in the western hemisphere, *THE HORSE OF THE AMERICAS*, by Robert Danhardt (University of Oklahoma Press, rev. ed. 1975) and *THE HORSEMEN OF THE AMERICAS*, and the literature they inspired, by Edward Tinker (University of Texas Press, 1965) are the best and most readable.

Nevada oriented books include *MUSTANGS OF THE MESA*, by Rufus Steele (Murray & Gee, 1934) with major accounts of turn of the century wild horse-catching in Nevada. Some of his introductory material is outdated. Two books by Hope Ryden, *AMERICA'S LAST WILD HORSES* (Dutton, 1970) and *MUSTANG, RETURN TO THE WILD* (Viking, 1972) offer considerable background information on the wild horse problems in Nevada, Idaho, and Wyoming, along with stunning photographs.

*Chief, Public Affairs, Nevada State Office, Bureau of Land Management, Reno, Nevada

**Author/Librarian, Santa Barbara, California

For younger readers, an excellent book is *MUSTANG--WILD SPIRIT OF THE WEST*, by Marquerite Henry (Rand McNally, 1966). This book gives special and deserved recognition to Velma Johnston (Wild Horse Annie). *MUSTANG*, by Anthony Amaral (University of Nevada Press, 1977) offers an extensively bibliography of notes and sources relative to Nevada.

HORSE BEHAVIOR

The natural history of the wild horse has been one of the neglected studies and which is vital to proper management and offering ethologists virtually a new field to explore. Some preliminary Nevada studies have been conducted under the direction of Mike Pontrelli by Steven W. Pellegrini (*HOME RANGE TERRITORIALITY MOVEMENT PATTERN OF WILD HORSES IN THE WAUSSUK RANGE OF WESTERN NEVADA*, 1971 Master's Theses, Univ. of Nev. Reno). Other studies worth examining are *THE ASIATIC WILD HORSE* by Erna Mohr, (J.A. Allen, 1972), *THE NATURAL HISTORY OF THE HORSE*, by John Clabby (Tallinger, 1976), *ETHOLOGY OF ANIMALS*, by R. Ewer (London, 1968). *THE BEHAVIOR OF DOMESTIC ANIMALS*, E.S. Hafez (London, 1969), *GENETICS OF THE HORSE*, by W. E. Jones (Michigan, 1971), and *LANGUAGE OF THE HORSE*, by Michael Schafer (Arco, 1975).

Also germane to the study of wild horses are these specialized studies: *HORSES*, by Gaylord Simpson (Oxford, 1951), *THE ANATOMY OF DOMESTIC ANIMALS*, by S. Sisson (Philadelphia, 1953), and *A HISTORY OF DOMESTICATED ANIMALS*, by F. Zeuner (London, 1963). One particular article worth mentioning is, "From Bones to Chromosomes," by Gladys Brown Edwards, in the *INTERNATIONAL ARABIAN HORSE*, April, 1965.

CONTEMPORARY RANGE STUDIES, with emphasis on wild horse, include: "Foods of Free-Roaming Horses in Southern New Mexico, by R. M. Hansen, *JOURNAL OF RANGE MANAGEMENT*, "Diets of Wild Horses, Cattle and Mule Deer in the Piceance Basin, Colorado," by R. E. Hubbard and R. M. Hanson, *JOURNAL OF RANGE MANAGEMENT* . . . "Food Relations of Wild Free-Roaming Horses to Livestock and Big Game, Red Desert, Wyoming," by Frank Olsen and Richard Hansen, *JOURNAL OF RANGE MANAGEMENT*, January, 1977.

CHAPTER IX - GROUP DISCUSSION REPORTS (All participants identified in Appendix)
SUMMARY OF GROUP COMMENTS

John L. Artz
(Groups identified by numbers in
parentheses following statement)

I. THE PRESENT SITUATION

A. General

1. The wild horse controversy is a small part of the broader issue of range management and public land use. The public is more aware and is demanding a greater voice in management. (4)

B. Range Conditions and Drouth

1. Range is overused in some places (1)
2. In areas where range habitat conditions are critical, solution to deteriorating range condition is essential as soon as possible (9)
3. A sense of urgency for management in some areas. Especially with drouth situation, some immediate measures must be taken (5)
4. Concerted effort by all needed to respond to emergency situation (overuse, drouth) (2)
5. Drouth may require some removal of horses (5)
6. Emergency - some drastic reductions needed (7)
7. Recommend BLM and FS reduce horse numbers to maximum carrying capacity during drouth situation with assistance of local and state advisory boards (8)

C. The Questions of Numbers

1. Concept of wild free roaming horses agreeable to all (9)
2. Reasonable horse populations should be perpetuated (7)
3. Everyone wants horses on the range. Disagreement begins when individuals expressed numbers desirable. Eventually there will be too many horses. (6)
4. How many horses not answered. Some said 1971 levels but are these reliable estimates? (5)
5. Too many horses in some areas. Excess animals (including livestock) should be removed (1)
6. Overpopulations of wild horses exist under current range conditions and levels of management. Agencies need to intensively control trespass (unpermitted) livestock of all classes (3)

D. Adequacy of Data

1. Definition of adequacy by baseline data is being established by the courts (2)
 2. Need greater credibility and confidence in agencies (5)
- (Several other similar comments. See VIII)

II. MANAGEMENT OF THE FEDERAL RANGE

A. Protection of the Range Resource

1. The basic soil and range resource is the main concern. Range problems should be addressed area by area. One solution will not work on all areas (1)
2. Protection of the basic resource itself, the land and vegetation, most important. (2)
3. It is necessary to protect the soil/plant community and basic soil productivity. (9)
4. The land resource cannot withstand too many horses (or any other large animal). Horses must be managed. Emotion has no place in determining whether horses should be managed if the land resource cannot support them. The capability now exists to measure condition of the land resource (6)
5. Wild Horse Management: the art/science of making land produce optimum number of horses compatible with other land use and without deterioration of habitat. (8)
6. Coordinated Resource Management - need basic inventory of soil, water and forage resources (including carrying capacity) - how much the resource can be utilized while maintaining productive potential of the land. The issue of number of wild horses that should be maintained must be resolved. (4)

B. Humane Treatment

1. Humane treatment must be paramount. (3)
2. No excuse for inhumane treatment (7)

C. Multiple Use Management

1. In developing AMP's and HMP's, each animal must be programmed in relation to habitat and best use of the area. Horses must be viewed as merely another animal with assets and liabilities to be considered and managed. There are areas where horses should be excluded. (1)
2. The land resource should serve many functions. Horses should not have exclusive consideration. (6)

II. MANAGEMENT . . . (Cont'd)

D. Preserves/Sanctuaries

1. Multiple use vs Dominant Single Use basic land management philosophies were discussed and it was agreed that the dominant single use philosophy for wild horse management may be the more cost effective and desirable approach. (4)
2. Preserves should be considered. Preserves would not preclude horses in other areas. (1)
3. Ranges and refuges have some merit. One advantage: advertises to public where horses are. Disadvantages: ranchers and wildlife lose out, fence problems, zoo effect, problem of excess numbers remain. (6)
4. Refuges have merit (with wildlife but no domestic animals). There should be a willing seller and horses should be greatly reduced elsewhere. (7)

E. The Livestock Industry

1. Ranching should be maintained as management unit component. Rancher and livestock are only components that can be managed expeditiously. The rancher must absorb the burden of competition for limited forage (5)
2. Rules should be made whereby individuals with legitimate claim would share cost of capture (7)
3. Trespass animals more an irritant than an issue. With need for immediate reduction, ranchers should be encouraged to round up and claim. Fees should be waived because horses not worth trespass fee. Some charge should be made and money returned to program. Vindictive feelings in trespass not helpful. (5)
4. Trespass should be waived for branded horses and offspring temporarily. (8)

III. REMOVAL/UTILIZATION OF EXCESS HORSES

A. General

1. Should not confuse horse problem with world hunger problem.
2. Agreed disposal was most urgent problem and that technology exists for humane capture and treatment but group had problem with defining "humane." (6)
3. Killing of horses is unpalatable to the public but costs of management and removal are increasing. This puts BLM in an untenable position. (5)
4. Long range management will require some stable level requiring artificial human maintenance (control of numbers). Interference with reproduction systems offers some promise. Disposal must be humane. (4)
5. Should horses be removed, cattle also should be reduced. (2)
6. Use of helicopters should be under direction of wild horse expert. (8)
7. Most legal tools are available. (8)

B. Roundups

1. Roundups should be conducted by bands. (2)
2. Invite interested groups to roundups. (1)

C. Adopt-A-Horse Program

1. Adopt-a-horse program for suitable horses is an agreeable initial step in reducing numbers. (9)
2. Adopt-a-horse program should be utilized to maximum through improved procedures (include applications sent to District) and increased publicity. Not agreed whether agency should screen horses for adoption. (3)
3. Has potential but only short range. (4)
4. Needs to be improved. Cannot cope with present large numbers and drouth. (7)
5. Postulate: Adopt-a-horse market will be saturated; midwest holding station suggested; caution scare ("kill") alternatives in publicity; more information needed on inhumanity of adoption. (5)

D. Ownership and Title Transfer

1. Title transfer question not resolved but generally agreed that transfer may be OK if necessary to dispose of unadoptable horses. (1)
2. Transfer of title recommended after adoptor has had horses for one year. (3)
3. Adopt-a-horse would be more effective with title transfer (6-12 month proving period, limit on number one individual could obtain). (4)
4. Approve title transfer to increase adoption but fear opening up Act to change. (5)
5. If adopt-a-horse continued, we should push for title transfer. (6)
6. The '71 Act should be changed to simplify ownership for individuals and government. (7)

E. Disposal Other Than Adoption

1. Excess horses that can't be adopted should be sold and funds used for range improvements. (1)
2. Removal options under humane controls: shooting, if not adoptable. (2)

- III. E. Disposal Other Than Adoption (Cont'd)
 - 3. Humane disposal approved if not adopted after two months. Use of carcasses acceptable but acceptable uses not agreed to. (3)
 - 4. Disposal must be humane, no agreement on use of carcasses. (4)
 - 5. Agreed these are the most humane disposal methods:
 - a) Sell carcasses for profit (pet food OK) to be turned back to management, b) use carcasses for human food at home or abroad where acceptable, c) shoot and let them lie, d) push for title transfer if adopt-a-horse is continued. (6)
 - 6. More discussion is needed on whether commercial use could threaten existence of horse populations. (8)
 - 7. Most felt it important to explore feasibility of utilizing excess horses by non-profit organizations. Others felt this was premature. (9)
- IV. RESEARCH
 - 1. Applied research is needed into ecological balance during the emergency (presumably drouth, range deterioration and uncontrolled horse numbers) (2)
 - 2. Comprehensive research should be included to provide basic information relating to improved census techniques, health of wild horses, impact on the ecosystems, technology for managing the animals and their habitat, and interrelations with wildlife and domestic livestock. (3)
 - 3. Wild horse management requires more research. (5)
 - 4. Horses must be managed based on careful research, planning and publicity. (6)
 - 5. Comparison research, long and short term needed; management must be flexible to incorporate new findings; research needed to establish harvest levels for all classes; forage utilization must be established under all combinations forage-use equities. (8)
 - 6. Need for research is obvious to all parties. (9)
- V. PUBLIC PARTICIPATION
 - A. Cooperation of Interest Groups
 - 1. Needed: better cooperation and communications among groups for long term needs. (5)
 - 2. Need for greater exchange of information among individuals and groups concerned. (7)
 - 3. The special interest groups should cooperate to achieve necessary goals (a key proposal - 1 of 3 - to start immediately. (6)
 - 4. Exchange of ideas between "opposing" groups desirable to avoid confrontation before legislation. (7)
 - B. Involvement in Decision Making
 - 1. Invite interest groups to roundups. (1)
 - 2. Interest groups should be brought "on board" early in decision-making process. (2)
 - 3. Cooperation of interest groups needed for drouth emergency removal. (5)
 - 4. Interdisciplinary teams recommended to develop credibility of needs assessment (drouth emergency). (5)
 - 5. Rancher must absorb burden of competition for limited forage. This may be unfair. (5)
 - C. Comments on Forum
 - 1. Forum was good learning experience. Future meetings recommended. Proceedings should include names and addresses of all participants. (3)
 - 2. A "show me" field trip would be a desirable follow up to the Forum. (9)
- VI. EDUCATION
 - 1. Horses have helped draw public attention to general poor range conditions. (1)
 - 2. Public relations program needed. (5)
 - 3. Education seriously behind - need program on impact of horses in range, wildlife, and food animals. (8)
 - 4. Public should be educated about land resource problems with interest in horses as the vehicle (1 of 3 key proposals for immediate action. (6)
 - 5. Public education on horses in relation to range, other uses and acceptable reduction methods needed. (5)
 - 6. National Advisory Board should appoint an Ad Hoc Committee of conservation educators for school curricula and teacher education. (8)
- VII. LEGISLATION
 - 1. Some legislation is too restrictive, limiting management. (1)
 - 2. New legislation should be enacted, if needed (1 of 3 key proposals to start immediately). (6)
 - 3. Request immediate action by Congress of Executive Order that WH&B Act be amended to transfer title to adopter and request Congress to appropriate money to carry out operation. (8)
 - 4. Public unanimity needed to allow Congress to enact prudent amendments to Act. (7)

VIII. AGENCY NEEDS

1. Needed manpower and financing for accumulation of base data is considered paramount. (2)
2. Agencies should be provided funds to manage horses and correct livestock trespass. (3)
3. Additional BLM funds needed. (5)
4. Need greater credibility and confidence in agencies. (5)
5. Need greater credibility and confidence in the agencies (specific issues: a) credibility, b) agencies not believed, c) interest group slant, are emotional and discredit agency information). (5)
6. Credibility of resource agencies is lower than desirable, higher at local level than in more distant offices: frequent transfer of employees contribute to the problem. Decentralization of decision-making to the local level is desirable. (4)
7. An independent group is needed to inventory wild horse numbers. (9)
8. Recommend BLM & FS reduce horses to maximum carrying capacity of range during drought emergency with assistance of local and state advisory boards. (8)
9. Favor Advisory Board with demographic interest. (5)
10. Current EIS efforts by BLM may be putting unreasonable time restraints on needed basic inventory and determination of carrying capacities (4)
11. BLM is in an untenable position which may backlash on the law. (5)
12. BLM may be taken to court for failure to use present authority to achieve ecological balance and remove horses from private lands. (7)
13. BLM should get on with the program. (5)

FIRST GROUP REPORT

Moderator: Joan Gidlund

Participants:	Donald Cunico	Bill Mathers
	Yvonne Fisher	John Miller
	Glenn Griffith	Forrest Sneva
	Virginia Handley	Pete Test

After some discussion, the group agreed to the following general statements:

- The basic soil and range resource is the main concern.
- The range is overused in some places.
- There are too many wild horses in some areas, and excess animals (including livestock) should be removed.
- Range problems should be addressed on an area by area basis. One solution will not work in all areas.
- Wild horses have helped draw attention to the general poor range conditions.
- Some legislation is too restrictive, limiting management opportunities. (General statement, not just about wild horse law.)
- Terminology needs to be clarified: Are the animals wild, free roaming, feral, national heritage species?

The following statements were agreed to by the group and presented to the Forum:

"Cumulative impact of range users is exerting a depreciating influence on numerous areas of public rangelands. As prudent and logical people, we must demand that the best management schemes be devised and implemented to protect the basic land and forage resources.

"There are areas where horses must be excluded. The horse preserve philosophy should be duly considered and reservations established where feasible. Preserve areas should be managed primarily for the horses.

"In the development of Allotment Management Plans (AMP) and Habitat Management Plans (HMP), each use class of animals must be carefully programmed in relation to habitat capabilities in concert with the best use of that particular area. Horses must be viewed as merely another range user with assets and liabilities that must be considered and scientifically managed.

"Excess horses that cannot be adopted should be sold, at the discretion of the agency, by the agency, and resulting funds used for range improvements. Interested persons and groups should be informed about roundups and invited to attend roundups and disposal procedures."

The group did *not* intend that establishment of wild horse preserves would preclude the existence of horses in other areas.

The transfer of title question was discussed but not resolved. There was general agreement that if transfer of title were necessary when the agency is disposing of unadoptable horses, that would be acceptable. (For example, if the agency were selling unadoptable horses to a rendering plant, transfer of title might be a legal necessity.) There was *not* agreement about transferring title to individuals under the adopt-a-horse program.

One member of the group suggested the Egar Range north of I-40 about 30 miles west of Winnemucca as a good area to establish a horse preserve.

In general, the discussion was productive and much information was exchanged. I think everyone felt his thoughts and ideas had been considered. The group felt a little hampered because there was not a representative from BLM in the group. There were questions and criticisms of the BLM but most of the group felt we should not belabor those without a representative of the agency to defend it.

SECOND GROUP REPORT

Moderator: Bob Goodwin

Participants: Garth Baxter
Mike Kilpatrick
Susan Lock
Warner Mitchell

Mike Pontrelli
Helen Reilly
Bob Wright

The following summary will attempt to relay the moods and ideas of the participants as the group covered various points we considered to be of importance, or primary concern.

In response to Jim Blaisdell's request for research needs, our group had dismissed this as an item already covered in the main sessions, and although the need is felt, it was not discussed in the group.

PROCEDURE: We introduced ourselves to the remainder of the group giving our affiliation. Each was asked to list a topic that he or she felt they would like to discuss. This was listed on a flip chart. By a consensus of the group we then selected the priority items for discussion to be sure we covered the most important ones before time ran out. When priority was established, the discussion was open and main points again listed on the flip chart. Agreement was not required, and points of differing views were listed.

GENERAL COMMENT: Interchange between members of this group was great. No one felt intimidated by the other's affiliation, and all members spoke with openness. All shared their thoughts, and a certain warmth between participants was noted by the moderator. This carried over to the evening social session.

SUMMARY OF DISCUSSIONS:

Topics listed were:

1. Viable options for removal of excess horses
2. Viable options for claimed horses
3. What are humane control methods
4. Utilization of disposed horses
5. Applied research into ecological balance during an emergency situation
6. Disposition of the number of illegal horses
7. Emergency removal procedures
8. The area of grazing for wild horses vs that of cattle

In selecting priority for discussion, we eliminated those not considered as open to discussion. This eliminated 2. and 6.

PRIORITY ONE

It did not take long to settle for 5. as the highest priority. Wording was changed throughout the discussion first of all from research to "applied" research to get across the point that we were interested in prompt results to meet the impending drought situation and not the long range research for other solutions or findings.

It was during this time the discussion of the group centered on the recent Challis, Idaho roundup stoppage by the AHPA, and some of the ramifications of that decision by a federal court. We then got into the reasons for the BLM losing that suit, and settled on the lack of adequate information to support their stand that the horses had to be removed. Pontrelli pointed out that much weight of the case against the BLM was due to a typographical error, listing the reproduction rate of the Challis herd as 29 percent.

POINT: It was agreed to by the entire group that the definition of adequacy of baseline data was being established by the courts.

The discussion then shifted to the types of baseline data necessary to satisfy the courts, and as a spinoff, other interest groups. Essentially there was a feeling that data being supplied by the agencies were inadequate, or even if adequate, not to be trusted. In order to get baseline data quickly, the Forest Service representative suggested using a system he found to work where various species were segregated. It appeared to have merit, and may be a "quick and dirty" way to meet an emergency. He suggested using the transect method of determining range utilization, knowing that research has already determined that proper utilization should be 30 percent. Fecal counts on the range could be used to determine the ratio of species using the range, and cuts or removals based on these factors.

POINT: This was never really agreed upon by the group as it was an oversimplification of the problem. However, the needed manpower and financing for accumulation of baseline information was considered of paramount importance by the entire group.

Shifting to how baseline data would be used, some discussion followed on how decisions should be made by the land manager when removal may be deemed necessary. Interest groups, both rancher and protectionist, thought it necessary to be brought on board early in the decision-making process. They would like access to the supportive data and statements (Environmental Analysis Report and Environmental Statement).

POINT: All agreed that interest groups should be brought on board early in the decision-making process by the agency proposing a roundup, and that supportive data be available to them.

Getting to the nuts and bolts of the situation was next in the discussion. It settled on the protection of the basic resource itself, the land and vegetation. The point was made that *should* horses have to be removed that *cattle* will also have to be reduced in the same area to protect the resource.

Although the discussion was short leading to this point, it was the underlying theme of all of the foregoing thoughts.

POINT: A concerted effort by all interested parties must be able to respond rapidly in an emergency situation to keep a viable range resource with a problem of overuse or drought threatens.

PRIORITY TWO

The group combined topics 1. and 3. for second priority; what are the options for roundup of excess horses, and what are humane control methods.

It was during this discussion that some of the members referred to thoughts of the wild horses; emotions of being captured and placed into corrals, losing their freedom, and showing a preference of places they would like to die. Attributing human feelings and emotions to animals, a common practice to be sure, could also be used against the interest groups.

And so we moved off the emotional side of it and began talking about sound criteria.

It was the group's consensus that horses may at some point in time have to be shot. And it was generally agreed that some would have to be shot even while the adoption program was underway, meaning the older, injured or "un-adoptable." The term "unadoptable" was defined as a horse (and here there was disagreement) either over two (2) years old or five (5) years old.

POINT: Shooting horses in place if not adoptable, meaning over two to five years old is acceptable

Another point of discussion regarding the roundup and disposition of excess horses was that of releasing the older, unadoptable ones back onto the range after they were corraled with the rest of the band. The idea of some of the participants was that they were too old to be cared for and they would "like" to die of natural causes in a familiar land.

Opposing viewpoints considered that once they were rounded up, they should be disposed of one way or another, namely, adopted out or humanely destroyed. Much of the expense would have already been in the gathering operation, and to disrupt the older horses from their familiar band would be no different than going to new surroundings with foster parents.

POINT: No agreement was reached on turning out the older horses once they have been captured.

It was agreed to by all that roundups should be by bands; it was also clarified that by this, it is to be understood that more than one band may be rounded up at a time as one is driven towards the trap. By all means, band integrity should be maintained in the roundup and capture phase. (No discussion followed the logic of what to do with the bands when it came time to adopting them out.)

POINT: Roundups should be conducted by bands; all of a gathered band be either adopted out or destroyed. (As you can see, there is a carry-over from the above point, but by this time, all agreed to the "entire band" concept.)

PRIORITY THREE

The third topic was that of "utilization of the product when horses are destroyed."

(I believe it was during this portion of the discussion that the subject of publicity surrounding destruction of the horses was mentioned. In deference to Group 5 - the one moderated by Tina Nappe - our group did not feel that publicity about the destruction of horses should be suppressed. In fact, it would be in the suppression of such material that the public would be offended *should* it become known after an active suppression phase. We felt deaths that have occurred already in the various roundups have contributed to the public knowledge that injury and death are part of the management problem.)

The first point made in relation to the priority - utilization of the product - was that we should not confuse the wild horse problem with the world-wide problem of hungry nations. In other words, let's not confuse two separate issues - resource protection and world hunger.

POINT: By talking about the use of excess horses for solving problems of hungry nations, our group agreed it would be confusing two distinct issues, and this was not our concern.

There was some talk about using the animals for fertilizer, and other non-human consumption, but the discussion was never run the full length due to the time commitments and a need to end the session.

Members of the protectionist groups did, however, voice an opinion that absolutely no use should be made of the animals even if they have to be destroyed.

Somewhere in this session, the act of burying the animals should they be destroyed on the range, in place, would be impracticable. Getting a bulldozer around and digging the holes would be detrimental to other aspects of the environment.

No point was reached on this topic due to the time constraint of other appointments by participants.

THIRD GROUP REPORT

Moderator: Jack Lavin

Participants: Jack Armstrong

Jim Beeler

Jim Blaisdell

Kay Cushman

Ray Evans

Kenneth Genz

George McGee

Ron Slater

Joe Willis

All members of the work group agreed to the following:

1. Under current range conditions and levels of management, there exists over populations of wild horses in certain areas of the West.
2. Land management agencies need to intensively control trespass (unpermitted) livestock of all classes.
3. Land management agencies should be provided with sufficient funds to manage wild horses and to correct any livestock trespass situations.
4. Methods of disposing of excess horses (by priority)
 - a) Use the Adopt-A-Horse program to the maximum extent.
 1. Improve agency procedures regarding this program to make the horses more economically available to citizens in the Eastern U.S.
 2. Provide that applications for a horse be sent to district offices rather than the agency Washington office.
 3. Horse Protection Organizations increase their publicity on the Adopt-A-Horse program
 - b) Humane disposal of animals not adopted after a two month holding period from the time of capture.
 1. Horse protection organizations increase their publicity regarding the need for humane disposal of unadopted horses.
5. Use of animal carcass is acceptable, but further evaluation is needed to identify acceptable specific uses.
6. A comprehensive research program should be initiated from Federal, state or private funds to provide basic information relating to improved censusing techniques, the health of wild horses, impacts on the ecosystems they occupy, technology for managing the animals and their habitats, and interrelations with wildlife and domestic livestock.
7. In managing wild horses, humane treatment must be paramount.
8. Recommended legislative change:
Allow Federal Government to transfer title of an adopted horse to the applicant, after the applicant has had the home for a one-year period.
9. The forum provided a good learning experience. We encourage future meetings of this type to keep up the dialogue between all interested groups, agencies and individuals.
10. The minutes of the forum include the names and addresses of the participants so that contacts can be maintained.

Areas of disagreements within the work group were as follows:

1. Adopt-A-Horse program
Point - Agencies should screen horses available for adoption to make the better horses available from standpoint of looks and safety.
Counterpoint - Government tells us enough already, I don't want them telling me which horses I can have.
2. Use of animal carcasses for commercial purposes.
Point - Source of food for man or other animals
Counterpoint - could lead to pressures on agencies to manage horses for commercial products.

FOURTH GROUP REPORT

Moderator: Elwood Miller

Participants: Robert Baum
William Beldon
William Blackwood
Roy Clifford
Michelle Harvey

Tony Howard
Dave Secrist
Norman Sharp
Martin Vavra

After a short period of introduction and general discussion related to attitudes and philosophical positions, the group became seriously involved in issue definition. Within a few minutes, the following five categories were determined to be of greatest interest and in need of further discussion:

1. Basic land management philosophy
2. Coordinated resource management
3. Adopt-a-horse program
4. Long range management for a stable horse population
5. Credibility

The discussion for each of these topics is briefly summarized below:

Basic Land Management Philosophy

The group identified two basic approaches to the management of land and resources, i.e., multiple use and dominant use.

1. Multiple use - Under present programs the multiple use philosophy prevails. Horses share the soil, water, and forage resources on the rangeland at large with all other animals, domestic and wild. The group agreed that this approach raises complex issues regarding resource allocation, animal population controls, and ecological balance.
2. Dominant or single-use - This concept could be implemented by establishing wild horse sanctuaries or preserves. There was agreement that this approach would be acceptable providing that:
 - a. The preserve would be large enough to maintain intact the basic environmental character of the horses natural rangeland habitat.
 - b. Private and local interests be fully considered in establishing the preserve and setting aside the necessary land.
 - c. That horse populations on land outside the preserve be substantially reduced but not eliminated.

The group agreed that given the present limitations on manpower and budget, a system of wild horse preserves may be the most cost effective and desirable approach.

Coordinated Resource Management

The discussion under this topic centered on the allocation of the soil, water, and forage resources to the various consumers, i.e., domestic livestock and wildlife, including horses. The group agreed that:

1. The first important step is a basic inventory of the soil, water, and forage resources. Next, the carrying capacity of the resource must be determined. In this step we must determine how much of the resource can be utilized while maintaining the productive potential of the land. Current EIS efforts by the BLM may be putting unreasonable time restraints on this phase.
2. Local level expertise and input are important in both the resource evaluation and allocation phases.
3. The issue regarding the number of wild horses that should be maintained on the rangeland must be resolved. The population that existed in 1971 was suggested. Problems regarding the inventory at that time were voiced. There was no recommendation on this point.

A point was raised regarding the use of privately owned resources by wild horses. There was some feeling that the landowner should be compensated when private water and forage were utilized. There was also some feeling that when the allocation of limited resources resulted in livestock reductions that some compensation to the permittee is justified. Countering this argument was the point that public land grazing is a privilege and not a right and compensation is therefore not warranted. There was no agreement on the above points.

Adopt-A-Horse Program

There was general agreement within the group that:

1. While the program may have more potential than is commonly recognized, it is still a short-range solution. It will not solve the long-range problem surrounding the disposal of excess animals.
2. The program would be more effective if title to the animal could be transferred to the recipient of the horse. This may be acceptable if:
 - a. A trial period of 6 months to 1 year is provided to insure the humane treatment of the animal and
 - b. an absolute limit on the number of horses any one person could obtain is established.

Long-Range Management of a Stable Horse Population

The group agreed that:

1. The maintenance of wild horse numbers at some stable level will be required.
2. Since the range resources will be allocated to all animal users the above level will be an artificial one requiring human manipulation for its maintenance.
3. Interference with the reproductive systems offers some promise worthy of additional research and trial.
4. The disposal of excess horse numbers must be done in a humane manner.

The use of the animal carcass was discussed. There was some feeling that the carcass should be put to a beneficial use and any proceeds be used to fund range management projects. There was not general agreement on these points.

Credibility

Again, the group was in agreement on the following:

1. In keeping with national trends, the overall credibility of the public land management agencies is lower than it should be.
2. Credibility is higher at the local level with local agency employees than with officials and offices removed from the local scene.
3. The frequent transfer and rotation of agency employees raises questions about their ability to fully do a job in any given area.
4. The decentralization of decision making authority to the local level is desirable.

It was repeated many times that as complex as it is, the wild horse controversy is but a small part of the broader issue of range management and land use on the public ranges. A great deal of attention has been focused on the public lands and the awareness level has been substantially raised. The public is demanding a voice in determining the future management priorities on these lands. Therefore, future laws and agency policies will reflect the public view. This is true with wild horses as well as the many other resources our rangelands can provide.

FIFTH GROUP REPORT

Moderator: Tina Nappe

Participants:	Charles Budge	Curt Nelson
	Dave Chamberlain	Gary Pike
	Ben Kizer	Ed Rowland
	Grant Messerly	John Weber

Our group agreed in principle on the shortterm and longterm needs.

Shortterm:

The Drought conditions impose hardship on all range users. One way of alleviating this problem would be to remove some wild horses where their impact on the range can be demonstrated.

-This could be done by obtaining additional appropriations for BLM for its wild horse program.

- In order to expedite the removal program cooperation by interested organizations would be essential for BLM to receive the funds and maybe in monitoring and supporting the agency in its removal program.

- An interdisciplinary team would help to develop credibility of the need assessment and in developing a plan of operation and carrying out the program.
- A public relations program would be needed to accomplish this task.

Longterm Need:

Education of the public about wild horses and their relationship to the range and other users and to some acceptable methods of reduction

- This would require greater credibility and confidence in the agencies administering the act and their information.
- It would also require better cooperation and communication among groups interested in the range.
- It will also require research.

Specific Issues Addressed by the Group:

- 1) **Credibility:** Agencies are not believed and thus are constrained by law and public attitudes -- Yet agencies must have some flexibility

Interest groups* tend to slant information for their own ends.

The emotion they build up may fragment and discredit rather than develop a cohesive attitude and support for the agency. -- yet interest in decision-making is often developed by use of emotion.

- 2) **Education:**

Advisory Board:

Perhaps the Board should reflect demographic interest so that public has confidence in board and board itself is educated to a conflict area's problem and can report back to those most interested.

- 3) **Excess Horses**

Postulate: BLM may and probably will eventually saturate the Adopt-A-Horse Program because of transportation, feed limitations of market.

Through suits and publicity killing more than one or two horses is unpalatable.

Both the costs of management and the number of horses needing to be removed will be increased.

BLM may be placed in an untenable position which eventually will create a backlash against the bill itself To reduce the backlash aspect, these proposals were discussed

- a) *Title Transfer:*

Transfer of title under appropriate conditions to increase the number of foster parents and reduce the management cost.

- Fear expressed of opening up the Act to change.

- b) *Adopt-A-Horse Program*

The midwestern holding station was a possibility

The use of scare tactics, i.e., news releases saying "we will have to kill them all" can be used but how often.

Then more information is needed on the inhumanity of adopting out many of the horses.

Maybe older horses should be killed, because they are most affected by captivity.

- c) *Trespass Animals*

The trespass animal question was recognized as more of an irritant to the issue than one of substance. Relieving the range of claimed horses was a temporary value at best. Since the main issue is one of collective wild horse impact on the range and decision on some carrying capacity, and claimed horses exert same impact as wild horses, they should be studied as a whole.

- Under the immediate needs of range reduction in areas of drought condition where claimed horses are exerting an impact, ranchers could be encouraged to roundup the horses themselves.

- Fees; Fees should be waived because horses aren't worth the amount of trespass.

Some fee should be charged and the monies returned to the wild horse program. This would make the removal of claimed horses palatable to general public.

Trespass fees are sometimes mentioned by some groups seemingly out of a vindictive feeling. Given the state of the range and of some wild horse herds, this feeling is not helpful to the overall program

- d) *Get on with the Program*

- * Some feeling that the BLM has the tools and needs to get on with it.

*Interest Group as used in our group meant any organization which has concern about wild horses.

4) *Management*

Present Reduction Systems

- There was consensus about maintaining ranching as part of the multiple use public land component. Problems of credibility about the rancher remain. Perhaps through the tagging of livestock program, relationship between livestock wildlife, and wild horses would be more clearcut. Issue of trespass livestock would not be brought up.
- At the present time rancher and his stock are the only components which can be expeditiously managed. Rancher can be told to pull off his stock.
- Wild horses, however, require extensive research planning and publicity before any action is taken. More funding is needed than is presently available to implement the program. Therefore wild horse impact can not be controlled and impact is increasing. The rancher by having to pull his stock off the range or competing for limited forage must absorb the burden of cost and effects.
- Controlling wildlife through hunting was mentioned, although almost no mention was made of the effects of extensive grazing on nongame, botanic, or soil communities.

Ranges and Refuges as a Management Tool

Postulate:

Limiting wild horses to a few large ranges or refuges would permit concentration of research, management, and removal programs. It would also advertise to the American public where wild horses might be seen.

- But who loses by the setting up of these ranges. Ranchers would lose grazing privileges and wildlife might also lose out.
- What would the management problems be? Would the range be fenced. If the range were not fenced how would horses be kept in and livestock and other horses out? Fencing is expensive and must be maintained. Horses will go through fences. With the increasing amount of use of public lands, the possibility of destroying of fences by recreationists and other users will increase.
- The zoo effect. Would horses become so tame that they could no longer be regarded as wild?
- Problem of eliminating excess horses still remains.

How Many Horses:

This question brought up several times, remained unanswered at the end of the session. Some felt the 1971 levels were acceptable. Ranchers had been able to live under those levels. Others pointed out that just what the 1971 levels were is a matter of dispute.

SIXTH GROUP REPORT

Moderator: Jeanny Pontrelli

Participants:	Ernest Campbell	Vaughn Mattson
	Walter Conley	Gene Nunn
	Jeanne Edwards	David O'Dell
	Nancy Holmes	Doug Reynolds
	Larry Irvin	Sim Weston

Group 6 reaffirmed what seemed to be a growing sense in the forum-at-large that agreement on several basic points was possible. These were arranged as follows:

1. Everyone wants wild horses on the range. The disagreement began where individuals expressed numbers of horses desirable.
2. Eventually, there will be too many horses. The term, "too many horses" was deliberately left general since specific numbers would differ according to other variables such as range condition, kinds of domestic/wild animals using the same land, climatic conditions, and others.
3. The land resource cannot withstand too many horses (or any other large animals). At some point in the future, if horses are left to multiply, the land will not be able to support them.
4. Horses must be managed. Emotion has no place in determining whether horses should be managed if the land resource cannot support them. Logic dictates this concept determined by careful research involving steps two and three above.
5. Capability now exists to measure the condition of the land resource.
6. A sense of urgency for management is needed now in certain areas. Especially under our present drought conditions, immediate measures must be decided upon and taken now if these areas are to be saved.

7. The land resource should serve many functions. Horses should not have exclusive consideration, but other species should be extended the privilege as well, where appropriate. In addition, consideration should be given to economic, recreational uses, and others.
8. If the preceding items are followed, the public ends up with whatever it is they want. If more horses are wanted, numbers of cows and other species must be reduced. If more cows are wanted, numbers of horses and other species must be reduced. At this point the public has put to work the multiple use concept. Decisions here will be restricted by the physical and biological constraints that nature imposes. Excessive emotion has no place in this picture.

The points of agreement were predictably quite general. Disagreement arose whenever specifics were involved. For instance, everyone agreed that horses need to be managed, but disagreed on disposal procedures. They also agreed that the disposal problem was the most urgent of any that had arisen in the forum and, therefore, should be directly addressed.

The group agreed that technology exists now for the *humane* capture and handling of wild horses. The problem came in defining the word "humane." The group decided to have a brainstorming session on possible disposal methods. One of the "for fun" ideas was to ship all the horses back east on the Mississippi River since "the easterners are making all the racket about saving the horses." From these ideas, the group chose what it considered to be the more humane ones. These were as follows:

1. Sell carcasses for profit (pet food acceptable) to be turned back to management.
2. Use carcasses as human food both home and abroad where accepted.
3. Shoot horses and let them lay.
4. If the Adopt-A-Horse program is continued, push for title transfer.

In this portion of the session the group expressed their feelings more openly. Whereas in the beginning, the Intellect had reigned supreme, in this portion, High Emotion held the throne. Everyone felt that he/she had been able to express feelings, deep-seated or otherwise. Afterwards, the group decided that Intellect should again wear the crown and the session should end on a positive note. It devised a set of key proposals to be started immediately.

1. The public should be educated about the problems of land resource, using the interest in horses as a vehicle.
2. The various special interest groups (livestock men, protectionist groups, researchers) should cooperate to achieve necessary goals.
3. New legislation should be enacted, if needed.

With this list, the group felt it had fulfilled its duty, and after reflecting upon the lateness of the hour, adjourned.

SEVENTH GROUP REPORT

Moderator: William Reavley

Participants:	Anthony Amaral	Calvin Ragsdale
	Jean Amaral	Roger Van Teyens
	Richard Brown	Jim Williams
	Joe Fallini, Jr.	Roy Young

Ten individuals attended this group session which was conducted in an informal style, allowing free range of thought and expression. Although the report refers to a consensus of opinion no individual should be held accountable to any one suggestion as each individual's view was not obtained in every instance.

Apparently of major importance was the problem of ownership of horses involved in the removal program. The group felt the 1971 Act should be changed in some manner by the Congress that would simplify ownership for the individual and for the government. In relation to ownership and removal of horses, the group discussed at some length the desirability of rule changes that would expedite the removal of trespass horses. The idea would be to establish rules whereby individuals with some legitimate claim to free roaming horses might well share in the cost of capturing said horses with their immediate removal from the overpopulated areas. Some in the group felt that BLM could greatly improve its mechanisms and procedures for removal of a great many horses that in some manner have some degree of claims by private individuals.

The group discussed a variety of subjects centered around the theme that there exists an emergency which is going to require drastic reduction in horse numbers on specific western ranges. Since it is deemed impossible to obtain a complete compromise between organizations with varying view points on how to cope with this emergency, a possible scenario on what might happen was fashioned by the group. Desirable would be enough public unanimity to allow Congress to enact workable and prudent amendments to the 1971 Horse Protection Act in 1977. Some felt that the suggestions for amendments by the Secretaries of Agriculture and Interior to the Congress made in 1976 would greatly aid in horse management provided enough funds were made available to perform the tasks required. It is likely that several kinds of amendments to the Act will be submitted, reflecting various public viewpoints.

Discussed was the possibility that BLM might be taken to court for not using authority it may already have to achieve a proper ecological balance, not allowing any one grazing animal to become numerous enough to destroy the balance. Some wondered why private individuals owning intermingled lands were not suing the federal government due to land damage by concentrations of horses that are under federal jurisdiction but are using private lands.

The group did generally agree that before 1977 was over public interest would see the application of the political system wherein each group with strong views would seek supporters and pressure on the Congress to enact amendments reflecting each groups viewpoints. It is logical to assume that a free exchange of information between groups with opposing views would be helpful in reducing areas of divergent views.

Considerable discussion ensued regarding the long range aspects of wild horse management and central to this discussion was *horse refuges or management* areas. Generally thought to have merit, these areas would be designated as horse management areas in units large enough to satisfy ecological requirements. The units would also be managed for native wildlife forms and likely would exclude domestic livestock. Areas would be acquired by dealing with a willing seller when private lands were involved, rather than using condemnation powers.

More detail about management units was discussed such as development of water sites to control and manage horse populations in keeping with available range resources. In addition long range thinking indicated that it would generally be desirable to *greatly reduce horse populations* that would not be a part of a management unit as discussed in the group. Possibly, at least in theory, the only allowable horses on the range outside of management units would be those for which grazing permits had been granted to eligible individuals. Joe B. Fallini, Jr. submitted a more detailed document related to management areas which is submitted with this report.

In various discussions the "*Adopt-A-Horse*" program was mentioned. In addition to wishing for changes in this program to possibly make it more workable, other remarks indicated other concerns. Some felt that the program could not cope with the need to remove large numbers of horses in a short time span and that the "*Adopt-A-Horse*" program has other limitations that in general make this plan questionable as a long range viable management tool. Few questioned the sincerity and excellent performance that many participating individuals are giving to the present "*adopt-a-horse*" program.

Everyone agreed that in any kind of future management program there is absolutely no excuse or reason why any of the animals involved would be treated in an inhumane manner. Likewise, all agreed that a reasonable horse population should be perpetuated as a part of America's heritage.

Further agreement was reached on the desirability to have a free exchange of information between individuals and groups that have some interest, great or small, in the free roaming horse problem. More discussion in depth must be held designed to examine every facet of whether allowing strictly controlled *commercial use* of free roaming horses would in fact threaten the existence of the entire free roaming horse population in this country. The group feels that further discussions are well worthwhile and that the University of Nevada, Reno is to be commended for causing this National Wild Horse Forum to be a reality.

Along with this report, a written suggestion by J. H. Robertson, retired professor of range management from the University of Nevada, Reno was submitted. The suggestion involves the use of prison labor in utilizing horse carcasses that would be used for practical purposes.

THREE BIRDS WITH ONE STONE

A proposal requiring imagination, resources, authority and leadership.

I. Seldom do we find current ecological and economic interests in bed together. Ecologists, sportsmen and stockmen all agree that further increase in free roaming horses and burros is unjustifiable.

Present population on Nevada ranges is about 40,000. Annual rate of increase is about 20 percent, or 8,000 this year, 9,600 next, etc., unless the tide is stemmed. Adoption of 450 in two years has scarcely affected the rate of increase. An unknown number has been taken by illegal poaching. A corral full is awaiting adoption as of 1 March 1977. We taxpayers have paid about \$450 per unit of adoption, or over \$150,000.

Damage to the range and competition for grass promise to be severe this drought year.

II. Much of the trouble in our prison, as in most, is lack of meaningful work. This is because prison labor is feared by labor unions. Arts and crafts and license plates are not enough. New prison construction is just ahead. A tannery to process horsehides should be acceptable to labor because Nevada has no commercial tannery. Further, a shoe factory could be included to make boots for Nevada's and other prisoners. Both leather and boots could be sold and the money put in the state treasury and prison fund (NRS 209.390, NRS 209.350). LEAN might approve funds for some phase of this operation.

The federal government now has means of corraling substantial numbers of horses at will wherever the animals are overgrazing. Readily demountable portable corrals of burlap or bunting can be used where needed.¹

A mobile unit can be built to dry meat. The manager of the beef jerky plant at Elko will help design it. It can be a steam plant fueled by non-forage trees and shrubs--especially juniper, sagebrush and greasewood. The land cleared of brush can be either seeded or managed for recovery by the forage species, depending upon level of depletion. This is a conservation program. The state and USDA are researching juniper control and use. Solar drying might be feasible.

Prisoners may be employed to skin the animals, salt the hides, bone out the meat and hang it among the steam pipes in the drier (NRS 209.475, 1 and 2). The mares weigh about 800 pounds, the stallions 1100. Skinning and boning out takes about two man hours. An average animal will yield 250-300 pounds of meat. The crew must include a licensed meat inspector.

III. The jerky (bitong) could be packaged on the site and given to private charitable organizations such as Catholic Relief Services, Oxfam America, CARE, or other. A more complete list is found in Volume IV, No. 12, Sept. 1976 of Interaction. USAID distributes food, so does the Food for Peace Program (PL480). They might be persuaded to contribute to the cost of operation.

Pending disasters such as earthquakes, much of the jerky could be stored in Nevada fallout shelters. The good cuts of fresh meat could be served at prison mess, another saving to the state treasury. During World War I 1,500,000 American horses were shipped to Europe and eaten by civilians and POWs.

Bonemeal has been a standard supplement for livestock in phosphorous deficient areas. The skeletons might be salvaged for this purpose and processed on site while drying the meat. It could be used for nutrient supplement, or used on phosphorus deficient range as a soil amendment.

The Birds: Range protection and improvement
Criminal justice
Famine relief
The Stone: Free roaming wild horses and burros.
J. H. Robertson
5 March 1977

PETITION

To: THE UNITED STATES CONGRESS
THE SECRETARY OF INTERIOR
Washington, D.C.

The Bureau of Land Management Advisory Board members of District 6, Battle Mountain, Nevada respectfully petitions the United States Congress and the Secretary of Interior to recommend the immediate amendment of Public Law 92-195, being an act to require the protection, management and control of wild free-roaming horses and burros on the public lands, to include authority of the Bureau of Land Management to obtain by purchase, as distinguished from condemnation through the power of eminent domain, an existing desert cattle ranch which is available for purchase through voluntary sale for the purpose of providing a habitat within a fenced boundary devoted for protecting, managing and controlling wild free-roaming horses and burros in a manner consistent with Public Law 92-195. The foregoing is recommended for the following reasons:

(1) By providing such an area, there will be no interference nor competition with existing private cattle, horses and other commercial interests which are currently licensed or permitted on the public domain, and who pay fees therefore.

(2) There would be no trespass or other unlawful occupancy and use of privately-owned water rights and privileges which are necessarily being utilized by wild free-roaming horses and burros without permission or consent of the owner of such water rights without compensation for such use, the full and complete use of which have been previously appropriated under the law of the State of Nevada.

¹Rufus Steele - Trapping Wild Horses in Nevada. McClure's Magazine 34(1):198-209. 1909

(3) Such a program would eliminate the litigation which is certain to result from the unlawful confiscation of private property to public use without providing adequate compensation therefore, as described in the previous paragraph;

(4) Such a project would not be competitive with existing commercial operations and with native wildlife;

(5) Such a program would concentrate such free-roaming animals in a particular area, providing a greater safeguard to the environment by permitting a closer opportunity for observation by the public and management by those obligated by law to provide proper management techniques and programs; would reduce the number of miles or roads and highways necessary to provide access to the public to view such animals, and would not only effect economies in the initial construction of such access but the maintenance of the same, as well as reduce the hazard to the traveling public on the public highways by eliminating large herds of such animals from major highways which are currently not equipped with animal control fencing.

(6) By having such animals concentrated in a controlled area, the harassment and cruelty which constituted the basis for the enactment of this legislation will be curtailed if not completely eliminated;

(7) The expense of managing and controlling such animals will be reduced by the amount of travel and the number of personnel who will be required to manage and control such animals under the terms of the Act. In view of the testimony of Bureau of Land Management officials given before the conference committee of Congress that the establishment of such ranges would cost \$3,000,000 to establish and \$300,000 per annum to administer after establishment, this consideration bears substantial significance, especially since \$2,000,000 of the amount estimated for establishment would be for access to the area and for recreational development.

Petitioner further requests that, if the Bureau and Board decline to give favorable consideration to immediate amendments to the Act, they include such recommendations in the joint report which the Act requires the Secretary of the Interior and the Secretary of Agriculture to submit to Congress after 30 months following the enactment of the Act, and to provide adequate compensation in the interim to those owners of legally-established water rights which are being unlawfully used in a confiscatory manner.

Signed by
Joe B. Fallini, Jr.
Twin Springs Ranch
via Tonopah, Nevada 89049

EIGHTH GROUP REPORT

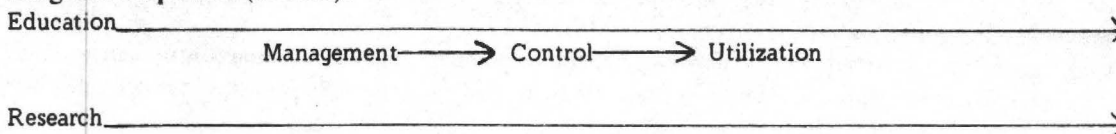
Moderator: Dick Teague

Participants:	Geri Alcamo	Texus Scofield
	Josephine Bartorelli	Nick Theos
	William Hyde	Robert Turner
	Chris Schweninsen	

Topics of Discussion:

- Management of wild horses
- Control of wild horses
- Utilization of wild horses
- Education Process
- Research

Diagram Sequence (Model).



Wild Horse Management defined by the group in the classical manner; "The art of science of making land produce the optimum numbers of wild horses compatible with other uses of the land and without deterioration of the habitat." By definition, wild horse management may at times imply producing more animals but eventually must imply *control*, or reduction of animal numbers above the carrying capacity of the range, and finally *utilization* of excess animals.

II. Much of the trouble in our prison, as in most, is lack of meaningful work. This is because prison labor is feared by labor unions. Arts and crafts and license plates are not enough. New prison construction is just ahead. A tannery to process horsehides should be acceptable to labor because Nevada has no commercial tannery. Further, a shoe factory could be included to make boots for Nevada's and other prisoners. Both leather and boots could be sold and the money put in the state treasury and prison fund (NRS 209.390, NRS 209.350). LEAN might approve funds for some phase of this operation.

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Signed by
Joe B. Fallini, Jr.
Twin Springs Ranch
via Tonopah, Nevada 89049

EIGHTH GROUP REPORT

Moderator: Dick Teague

Participants:

Geri Alcamo

Josephine Bartorelli

William Hyde

Chris Schweninsen

Texas Scofield

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Robert Turner

Topics of Discussion:

Management of wild horses

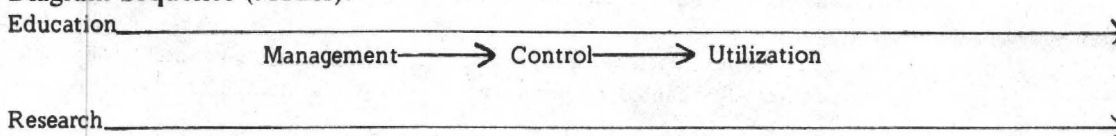
Control of wild horses

Utilization of wild horses

Education Process

Research

Diagram Sequence (Model):



Wild Horse Management defined by the group in the classical manner; "The art of science of making land produce the optimum numbers of wild horses compatible with other uses of the land and without deterioration of the habitat." By definition, wild horse management may at times imply producing more animals but eventually must imply *control*, or reduction of animal numbers above the carrying capacity of the range, and finally *utilization* of excess animals.

Control

The group agreed on the following: "We recommend that the BLM and USFS reduce wild horse numbers down to the maximum carrying capacity of the range during this drought situation. The state and local existing multiple-use advisory boards should be used to make this determination."

Most legal tools for control are available, the job simply needs to be done! The use of the helicopter is a satisfactory tool, but should be used under the direction of a wild horse expert. Most BLM districts have this expertise! In sequence then, *control* leads to *utilization*.

Utilization:

There was general consensus that the trespass regulation should be waived in order to return as many branded horses and their discernable offspring to the legal owner. Once this has been accomplished the trespass regulation should again be invoked and strictly enforced.

It was suggested that the human population of the U.S., particularly in the east, may not understand such a maneuver and that in order to not further erode the image of the ranchers involved that it may be judicious to ignore any effort to return branded horses to their owners.

In order to better expedite use of surplus animals the group summarized as follows: "We request immediate action by the U.S. Congress or by Executive Order that the Wild Horse and Burro Act of 1971 be amended to transfer title to the adoptee; and further request that Congress appropriate money to carry on this operation."

Further

Any animals that are not transferred to private ownership, but are excess and must be removed from a given range, be disposed of under the guidance and approval of wild horse protection organizations.

Education Process:

- 1) Already seriously behind.
- 2) Need a well-organized and well-documented educational effort to bring to the public's attention the impact of wild horses on the range, wildlife and food animals using common habitat.
- 3) The educational effort is a never-ending process.
- 4) The group recommends that the National BLM Adv. Board appoint an Ad Hoc Committee of premium conservation educators to develop educational programs and curricula for national elementary and secondary education, including appropriate training for teachers.

Companion Research:

- 1) Must develop long term and short term research needs.
- 2) By definition, management should be flexible enough to rapidly incorporate new and applicable findings of research.
- 3) In order to establish harvest levels of all classes of animals (wild horses, livestock and wildlife) using the range, forage utilization (qualitative and quantitative) must be established under all combinations forage-use equations.

NINTH GROUP REPORT

Moderator: Bernard Shanks

Participants:	Jim Bennetts	Dawn Lappin
	Jim Campbell	Wendell Later
	Ray Cushman	Joe Robertson
	Frank Groves	Lloyd Shewmaker
	Mr. and Mrs. Dick Jenkins	Peggy Smyth
	David Kitchen	Peter Weber

Our discussion generally had three view points expressed repeatedly by various individuals. First, the ranchers concern and views. Second, the opposing feelings and views of the horse protection people. Third, the views of wildlife interests which generally agreed with the rancher. We sought to find some common ground which all groups could agree. The major points are as follows.

1. It is essential to protect the soil and plant community and to maintain the basic soil productivity.
2. The concept of wild and the free roaming horses was agreeable to all groups. Disagreement occurs over the number and location of animals.
3. The concept of an adopt-a-horse program for suitable horses and as an initial step in reducing numbers is agreeable.
4. In those areas where range habitat conditions are critical, a solution to the deteriorating range is essential as soon as possible.
5. The need for research on wild horses is obvious to all parties involved. Additionally everyone felt that a independent group or agency was needed to inventory wild horses.
6. As a follow up to the Wild Horse Forum a "show-me" trip would be useful. Such a trip could illustrate the problems in the field.

Most individuals but not all felt that it was important to explore the feasibility of utilizing excess horses by a non-profit organization. Most of the discussion centered around Dr. Joseph Robertson's proposal and the locality of such a program. While most felt it was worth considering further a few individuals regarded such an investigation as premature.

In conclusion, while the items agreed upon were fairly basic and fundamental, they represent an important step toward resolving a public land policy problem. Everyone made an honest and sincere attempt to appreciate and understand the opposite viewpoint. The struggle to agree on the basic points was rewarding to observe.

CHAPTER X

HIGHLIGHTS FROM DISCUSSION SESSIONS

John L. Artz, Editor

INTRODUCTION

Approximately seven hours of questions and discussion were taped during the Forum. First cut editing to remove unintelligible, redundant and repetitive material produced a sixty two page double spaced transcription. From this, comments, questions and responses have been organized by subject matter and further edited with a very sharp pencil to produce that which follows.

We have attempted to include the most interesting and informative materials that could be accurately transcribed with a minimum of editorial license. Omissions or possible mis-statements may be due to noise interference on the tapes or to interpretations or decisions of the editor. Copies of the original tapes are available for review at the College of Agriculture.

A. FEDERAL MANAGEMENT POLICIES

1. *Question by Nick Theos:* Who really owns the wild horse?

Responses

- a. *Mike Pontrelli:* I thought that the Supreme Court decision made it very clear that these were publicly owned animals under the specific management prerogatives of the Forest Service and the Bureau of Land Management which makes them publicly - federally - owned animals.
 - b. *Tim Monroe:* Nick, the title question simply wasn't answered in Morton vs. New Mexico. It is still up in the air. There has to be a direct action by Congress.
 - c. *Don Seaman:* Title belongs to the United States. It was the decision of New Mexico versus U.S. that determined that. There is no authority for the U.S. to transfer title at this time.
2. *Question by Calvin Ragsdale:* What is the BLM policy on wild horses that stray onto private lands?
Response by Tim Monroe: This is not a problem unique to Wyoming and the Red Desert area. It is a problem to the entire southern half of the State along Interstate 80. It happens in Nevada; it happens in Oregon. If we move the horses on to an unfenced range, they are going to go back. They are going to use traditional paths and trails to get from one place to the other the same way they have for generations and generations so that really is not going to be the solution. The solution is to take them off the range period. To do that you have to have some other place to put the horses. Costs are estimated at \$300 to \$350 to gather a horse, process it, care for and feed it and turn it over to a custodian. That is an awful lot of money per horse. There has to be a better way to do it. So we are working on the problem. Bear with us.
 3. *Question by Earl Drake:* Could the BLM issue hunting permits and would this get around the commercial use problem?
Response by Tim Monroe: This is kind of a funny position. We are the custodians of the animals but on the other hand under law and precedent and departmental policy, BLM manages the habitats of wild animals and the States manage the animals. We are not even authorized to issue a hunting license and a tag or a permit or anything for taking wild horses.
 4. *Question by Virginia Handley:* Is it standard policy that if horses are removed, livestock will also be removed?
Responses:
 - a. *Christian Vosler:* I think that depends on the situation. If you have got an overgrazed condition, then you have to take care of the vegetative resource. In our situations where we have removed horses, we have had overgrazed situations and we have felt to get that range back you have to reduce animals and that's what we've done. We can't remove wildlife - but we've removed horses and cattle.
 - b. *Don Seaman:* We must recognize that the use of these public lands for grazing of livestock has been with us for 100 years or more in the western states. It is recognized in the enabling legislation under which the National Forest System is managed. It is also in the Taylor Act and now in the BLM Organic Act. We graze domestic livestock under law and we have over the years attempted to bring those animals under a management system. We haven't moved as aggressively as we should have in some areas but I think if you look at the situation, in livestock numbers grazing the public lands, you will find that they have been drastically reduced over the years.

What we did when we created the Wild Horse and Burro Act was to put an over-riding animal on the lands to be recognized. In many cases that has over-committed those lands and adjustments have to be made.

We have looked at a slide on National Forest System lands where in the last five years, wild horses have increased about 50%, and cattle numbers have not increased at all. So a lot of people would say it would be unfair to take livestock off in the same proportion that we take wild horses and burros off. What we have got to do is figure out the allocation process that will be fair to all. To say for every wild horse we take off we have to take off a cow - that is not, in my opinion, a fair process.

- A. 5. *Question and Statement by Joe Fallini, Jr.:* Is there enough room for the horses and the cattle both? In the Tonopah area the criteria for an animal is established around a 4-mile radius of water. They have what you call dry AUM's (more than 4 miles from water) and they are actually open AUM's. Wouldn't it be advantageous to the Bureau of Land Management to increase the service area for horses one extra mile? If you figured this out by formula, you find that it would increase the area by 1.58 times the original 4-mile radius. Now if we do this, we can satisfy a whole bunch of AUM's for horses and we can satisfy the ranchers who own the private waters being used by the horses. Another possibility--wouldn't it be advantageous for the BLM to produce water in the dry areas so they could allocate AUM's instead of taking them away from the livestock industry?

Response by Ed Rowland: As I understood the question, you were asking whether for horses we could increase the service area of water. It would seem reasonable to me to do it because I am sure that horses will work out a lot farther from water than cows will. As far as your second question concerning developing waters in dry areas, this we hope to accomplish when we get our allotment management plans implemented.

6. *Question and Statement by Joe Fallini, Jr.:* In the Tonopah resource area and in a lot of other areas, the BLM has never put one penny into water development. In my particular case, I think we have well over a million dollars worth of investment out there and the BLM has almost none. If these horses are limited to this 4-mile radius, the same way that cattle are, aren't you using somebody's private property as a criteria to establish AUM's for wild horses?

Response by Ed Rowland: We probably are. I know that most of the water developments in that area have been privately funded and are privately appropriated waters. So undoubtedly we are utilizing those for these horses.

7. *Two Comments by Bob Baum:*

a. *Advisory Boards:* In reference to the fact that the wild horse board has been suspended, I am aware that the multiple use boards are not even being considered and I think this is bad. I would appreciate some consideration by those here as to whether they feel that the system that the BLM has had of multiple use boards at the state and local levels and national advisory boards were of any value. And I think it would be worthwhile to advise the Secretary of Interior of your feelings relating to this and to the National Wild Horse Board. If there could just be an advisory group that could address themselves to the specific issues relating to these problems rather than us here trying to cover everything when you have all different kinds of situations.

b. *Management Flexibility:* I appreciate that laws are passed by Congress and this one was but what I am trying to say is that there has got to be enough flexibility in resource administration that the resource manager at the local level can plan for this unit and can plan for that unit based on what the ecology is, what the soils are, what the wildlife is, etc. We are getting to the point where they can't do that.

B. HORSE COUNTS

1. *Comment by Ross Ferris on Wild Horse Survey Method Used in Nevada:* The System we used in Nevada in the 1975 inventory was by helicopter going over specified areas, photographing individually each band, each group of animals. We came back. This data was analyzed to make sure there weren't duplications. We could tell whether or not there were duplications by the photographs that were taken. We did not take into account any animals that were missed and there were animals missed in the inventory. So the data that has been published and the data that came out in the 1975 inventory that has been continuously questioned since that time is the *bare minimum* of those animals that existed during that two months periods in Nevada.

Response by Mike Pontrelli: How was the 1971 count made, Ross?

Response by Ferris: There were numerous different counts. There never was a complete count made.

Response by Pontrelli: The argument of the protection groups is very simple. They don't believe that your 1971 count is accurate. Therefore to compare the 71 and 75 is not fair. It's just that simple.

Response by Ferris: There was never a systematic count ever made in Nevada as far as I know on wild horses prior to 1975. I don't think there was a systematic count made in any other state.

- B. 2. *Questions by Dawn Lappin:* 1) Are the films of the horse counts available to the public and (2) would it be possible instead of wasting money on court actions and publicity, to get a small group from various organizations to look over the materials (she has indicated that the principle concern on numbers now is that the public or some groups do not accept the large numbers of wild horses that the BLM is saying are out on the public range now)?

Response by Ed Rowland: Yes to your first question. The inventory information is available for inspection, now I am not sure that we have it all in the State Office, part of it may be in the District Offices. Pictures, yes, I think we have all the pictures. On the second question, if we could get the groups together we would have no objection to going out and trying to show you what we are talking about.

3. *Statement by Nick Theos:* I agree with everybody that the counts are not important. What is important is the ranges. I think that the ranges should be protected as much as the wild horses. I think that the BLM's credibility is gone. You people don't believe their counts. You don't believe the condition of the ranges. I don't always like what they do to me when they cut me off but I think the ranges belong to them. My question is who is going to determine the condition of the ranges? Is it the BLM? The Forest Service? OR do you have to get these groups to have hearings before you reduce these animals. I don't think we can wait for research. With this drought something has got to be done or you won't have any horses in a couple of years to talk about.
4. *Statement by Bill Reavley:* I hear in my head an echo I heard 35, 40 years ago in this business. As a former Fish and Game employee, I spent lots of time officially trying to defend the counts made by Fish and Game departments. They were in question just as much then and they are still being questioned. The point I will make about it is that we can sure waste a lot of time, effort and energy in this area and the point was well-made this morning that the range conditions out there on the ground are very very important and we can spin our wheels a great deal on counts unnecessarily. I think we should devote more of our attention to the actual welfare of the plants that the animals are eating and how much bare ground is exposed and these kinds of things.
5. *Statement by Walter Conley:* If you look back through the literature in wildlife management, one finds an incredible amount of effort having been expended on the extension of numbers of populations. Now as somebody who is interested in the demographic mechanics of populations, I argue with my students that the only thing I need to know density for in a population is so that I can know how much density there is - which is a stupid, logical circle, if you really think about it. There are many, many, many demographic parameters about populations - breeding rates, age and sex ratios, all kinds of conditions and qualities of the animals - that you don't need to know density for. I would be absolutely shocked if we couldn't find people who are familiar with any particular area, who know something about plant ecology, if they couldn't make some kinds of indications about how many animals were in a given area. Without knowing how many animals are there, you can look at the vegetation and you can look at the aspects of the environment that the animals have impact on. The actual argument of density, of how many animals are there is relatively unimportant . . .
6. *Statement by Mike Pontrelli (speaking of the humane organizations):* I don't think that they have yet established in their minds what the level of animals should be. This is because they don't feel very good about the data they have been getting about what is there now or about what used to be there. So they don't really know what should be there. Many wildlife biologists and certainly many in the livestock industry have strong feelings about numbers and what should be done. There you have a real big difference immediately. They don't know yet, you think you do.
7. *Statement by Joseph H. Robertson:* I am a member of the largest organization here. I am a member of the human race -- about 4 billion of us and I am representing the hungry 1/4th, 1 billion, so when you say it doesn't matter how many there are I think in step one this is true. I agree we have to protect the range and we are going to have to remove some horses but then in step two, what are we going to do with these animals that we remove? This is why I think the numbers are important: because this is a resource that many of us don't want to see wasted and we have dumped too many AUM's into these animals and there is too much protein and too many hungry people and we have to put this together.

C. UNCLAIMED PRIVATE HORSES ON PUBLIC LANDS

1. *Question by Susan Lock:* How many unclaimed or claimed private horses on public lands are we talking about?

Response by Ed Rowland: I think the nearest we can come to it would be the original claims, prior to the information that there would be in trespass charges. I think we had about 7,000 claimed. here in Nevada, prior to 1973. Afterward, claims were continued on about 2500.

- C. 2. *Statement by Roy Young:* It has always been my position, and I have traveled through a lot of these different states, that there a lot of private horses still out there on these ranges. . . I don't know how many branded horses we have out in the State of Nevada. If we got them all together, 30% of them might be branded horses, mostly the older horses. This we are not too sure of. I don't know. If we were to get into this thing and get out and gather those horses and let the fellow pay the trespass on his branded horses and get them out of there, if he can show any claim to them. I think that this is what the protection people are really concerned about - a lot of trespass private horses mixed in with the wild horses.
3. *Statement by Joe Fallini, Jr.* (in response to a statement that the reason ranchers took care of wild horses before the Act was because they made commercial use of them): Our particular ranch, over a period of about 20 years has taken off over 1,000 head of horses and, out of this 1,000 head, we have probably received pay for about 25 to 30 of them. Of these 25 or 30, most were offspring out of our registered mares that are still out there and we are unable to claim because there was a discrepancy in the rules, in what the BLM had been telling us and what they had been telling other people. I have documented letters from 1971 to 1973 that state that we could not remove our horses and in this length of time naturally there are offspring of these horses. After the claiming period came and we were not able to take these horses off, we were faced with a trespass. During the Stone Cabin Roundup some of the offspring of these privately owned horses were denied to the people who actually owned the mares because they weren't branded. If we wanted to buy a horse back we would have to buy him back at a trespass fee, in most cases over the price of the horse. This is one reason that the ranchers were a little bit bitter. When you put registered horses out and registered mares, and use them as your saddle horses, and you paid licenses on them since the Taylor Grazing Act, and then all of a sudden they cut off your license, they denied the right to your horses through inverse condemnation. I think this is one thing that, if it had been settled at the start there would have been a heck of a lot smoother feelings between the BLM, the horse protection groups and the ranchers.
4. *Question by George McGee:* What can we do about removing these claimed horses that are still out on the range with the wild horses?

Responses by:

- a. *Tom Ballow:* Several recommendations have been made by the State Board of Agriculture that we have a new claiming period but it has not met with good reception from the BLM. In actual experience we find that the most serious problem is with the privately owned horses that are not branded - offspring from branded horses that were out there in 1971 and which have not been gathered since. These privately owned horses actually end up going into federal ownership and being adopted out to somebody else when they actually belong to those ranchers. That's the problem.
- b. *John Weber:* One of my recommendations is that the claiming period should be re-opened and the trespass provision waived. The thing is that we are all wanting to get these horses off and I think that the trespass penalties were made too stiff and a lot of people just didn't go claim their horses. We feel this would be a good way to remove a lot of the claimed horses and leave more room for wild horses. This was my point.
- c. *Mike Pontrelli:* A number of years ago when I was not a member of that board (National Wild Horse and Burro Advisory Board) a recommendation was made to waive trespass fees. Three humane organizations asked me to inform the board and the BLM and F.S. that they would immediately file suit against the waiving of trespass because the Segregation Act was specific for the trespass fees. These organizations felt that these people put horses on the range without paying any fee whatsoever and they have been running horses for years and years and years on the public lands paying no fees. All of a sudden now the Wild Horse and Burro Act comes and these people can no longer receive benefits from these horses. The livestock users now say it is expedient to remove these animals by waiving trespass fees. Again people are getting away with running horses on public lands without paying anything. . . Now if you are dealing with an expediency question in moving animals there may be better ways to do it than to let someone who has been illegally running on public lands to now benefit from these same animals through expedient removal.
- d. *John Weber:* I would just like to say that there are two sides to your story too. We have lots of private lands in the State of Nevada here intermingled. We kind of claim that wild horses have been trespassing too.
- e. *Bob Wright:* Well, there are a lot of these horses that are on private lands. I don't know, Mike, how the situation could be handled. Maybe you could offer a solution. The ranchers probably shouldn't benefit from gathering these horses. Do you think if they were gathered, that the funds should go into the general fund for BLM? . . . The Wild Horse Act itself does not mention trespass fees for claimed horses.

- C. 4. f. *George McGee*: Our concern really is that we may have another law suit anyhow. The argument they give us is that after the last claiming period the ranchers had abandoned the horses and thus the federal government has acquired the right to possession or ownership. That would be true if the abandonment had been voluntary. However, many ranchers in Oregon tell me that they could not claim their horses because they could not afford the trespass penalty fees. Now if that constitutes involuntary abandonment, they still own those horses. Nobody else has title or ownership to those horses. Congress can't just pass an act that takes somebody's personal property and gives it to someone else. We argue that it's necessary that you have another claiming period with a moratorium on trespass penalties to settle the ownership question. We may get a lawsuit yet on behalf of some of the owners of horses or from others in federal district court.

D. WILD HORSE REFUGES

1. *Question and Statement by Bernard Shanks*: I thought that one of the advantages of having our token economist here from Resources for the Future was that he brought up a very interesting idea that I regret has not been discussed. That was the idea of maximizing the benefits of wild horses in terms of public viewing and recreation and minimizing the cost to the agency by a series of wild horse ranges. Without getting into where these would be located, I would like some comments from both the ranchers and horse protection people as to what they think of this idea of a series of western ranges for the wild horse.
2. *Statement by Mike Pontrelli*: When the Department's and Bureau's version of the 1971 Horse and Burro Bill went to Congress it included a provision to establish 12 wild horse ranges. The protection organizations were exceptionally upset at those provisions. Number 1 there was a fear that the provision called for just ranges and horses would be removed from the rest of the range. There was also a cost involved - talk about an immediate package of \$12 million - and again the horse protection groups were positive that this was an attempt to put too much money on the bill and kill it. So they strongly reacted against the provision of the ranges and had them removed. It was not included in the bill.
3. *Statement by Joe Fallini, Jr.*: When the Wild Horse Act was passed, I was sitting on the advisory board in the Battle Mountain District. At this time we made a proposal that they should make horse ranges and buy ranges that were for sale, and I want to stress this--the reason that this thing was put together was to protect the people that didn't want to be sold out.
4. *Statement by Bill Reavley*: Wildlife interests have a big interest in this refuge business. They would like to be consulted. Talking about tradeoffs, if you are going to set aside a wild horse area, you have to consider the indigenous wildlife that's there already. Another thing that hangs over the head of a lot of professional wildlife people is the worry about many of the old refuges that were established where you could have no management. In other words, you put a fence around it and let the animals take care of themselves. In many, many instances, this was poor management and we don't want to get back into a situation like that.
5. *Statement by Bob Shields*: I might provide a little bit of insight based on my past experience in management of the National Wildlife Refuge System that could probably be helpful in submitting proposals to people that might act on or draft legislation. I think it would be to the advantage of the Forum and get preserves established quicker if you could establish who would manage these preserves. I think that's important. Would the state manage it and who in the state? Would it be the federal government, Bureau of Land Management, Fish and Wildlife Service, Forest Service or whomever? Those points should be addressed. How many animals would each preserve accommodate. If you know that figure, it would be helpful to put it in. Where would the preserves be located? How many preserves? It should also provide some management latitude for the preserve managers. Especially in the area of control of surplus animals. Establishing a preserve will not take care of the problem for many years. You might transplant 2,000 or 3,000 horses, but sooner or later you are going to have to control the surplus.
6. *Statement by Rex Cleary*: I speak from a background of having served as the District Manager in Billings, Montana for 4 years. The Billings District had the Prior Mt. Wild Horse Range. It was the first official wild horse range established by the BLM, established in 1968, 3 years prior to the 1971 wild horse law being passed. I have had the opportunity to manage a refuge, a sanctuary, if you will, for 4 years and then spend two years in the Susanville District without a refuge where we have 4,500 animals currently running at large on the public lands. So I have the perspective of both situations.

I guess I would simply like to express a note of caution relating to refuges. After Managing the Prior Mt. Horse Range for the 4-year period, we had the population problem well under control. We had our base population down to the sustained yield level and from that point on we were in the highly desirable position of simple needing to go out and capture a few excess colts each year. The colts were easy to catch and easy

- D. 6. to give away and we didn't take out any older animals. We were able to leave the older animals to die a natural death and would just leave enough colts to offset the death loss and maintain a stable population - Very low expense and a lot of public appeal for the excess animals.

What we hadn't done yet was to bite the bullet on management of the land. The horses were still grazing year long on the Prior Mt. Wild Horse Range. There was a large share of the range I would estimate maybe half where the water sources were that the horses concentrated on for the most part of the year, grazing on the vegetation year long. Here, the halogeton was invading at an alarming rate. The land was continuing to deteriorate and someday the Bureau is going to have to bite that bullet. In setting up refuges there can't help but be pressure put on the agency to stock the refuge somewhere near capacity for wild horses. So the refuge manager has the problem of worrying about how to manage the land, how to rotate horses to provide periodic rest similar to domestic livestock.

Our thoughts on the matter are that we would rather not look to refuges in the Susanville District but try to disperse the animals as much as possible. In our Homecamp - Tuledad area, where we are doing our first grazing EIS, we have provided for two wild horse populations each in a different allotment and we provided a level of animals in our land use decision that we feel that the allotment can accommodate without having to manipulate and rotate horses. There is a good chance that they can fit into the ecology out there without damage to the land. We have also provided that in the off season, when livestock are not using the allotments, all gates will be left open so the horses have the option to run at large throughout the whole allotment.

I have also heard the expression the refuges provide opportunity for people to go see horses. I don't necessarily feel that this is a necessary step for people to see horses. We provide, in our land use decisions in Susanville, for visitor overlooks that look out upon an area where horses do frequent and horses are going to frequent whether there is a refuge or not.

E. THE ADOPT-A-HORSE PROGRAM (See also F-1-C - Dawn Lappin)

1. *Question (Speaker not identified):* Do you think that, if BLM could deliver title when they give horses out for adoption, they could get more horses adopted?

Response by Carl Gidlund: I think so. It's only conjecture. One thing I neglected to mention - the high cost of hay. Our State Director has recently written the eastern states office saying that as a result of the drought we expect that there are going to be a lot of turnbacks to us and turn outs back onto the range again. We have suggested strongly that as long as this program continues, we should start hauling the horses back east where, hopefully, they do have more moisture. Surely the cost of hay isn't going to be as much. We might pro-rate the cost of transportation among the custodians.

2. *Question by Carl Gidlund to Dawn Lappin:* You indicated that BLM has not treated the adoption program fairly. Would you explain your position?

Response by Dawn Lappin: You are thinking of it on a personal basis and I am thinking of it over the long term. We have people constantly saying that the adoption program isn't working. Now it's coming out of your office. It's coming out of Washington, D.C. It's coming out of livestock operators. It hasn't really been given a chance. It really hasn't. First of all we have had suits that stopped gatherings which made our applicants unhappy because they were half way to the State of Nevada. They couldn't get their horses. These things add up to the fact that these people, some have applied 7, 8 times to the district, have been turned down some for lack of facilities when they have 4,500 acres on the ranch. It isn't fair to say the program doesn't work, because it hasn't had a chance.

Response by Gidlund: Conversely, I would point out and you are well aware that with our calls to people who are bonafide applicants, processed by the BLM, we get an 80% turn-down rate.

Response by Lappin: This is true. I am not saying that this is not true. In fact I would say it's about 10% return on all applications that go out.

3. *Statement by Ray Evans:* The discussion yesterday suggested that if you put a year's feed into the horse, and a year's training into the horse and perhaps a year's love into the horse, it is not very likely that after you have the title that you would want to load it into a truck and take it down to the rendering plant. I think that was one of the big objections: that people would get as many as they could, and take them to the rendering plant. And we were trying to block that particular maneuver, you see. And we were saying maybe a year would do it. Maybe it's 6 months I don't know but the person who adopted a horse was kind of on probation. Some of the people were suggesting that the protection groups would volunteer, without pay of course, to go check occasionally, like the health department does when you adopt a child to see if things are going alright.

F. OTHER MEANS OF EXCESS HORSE DISPOSITION

1. *Responses by Representatives of Humane Organizations to Questions on Acceptable Methods of Disposition of Excess Horses that Cannot be Adopted:*
 - a. *Response by F. L. Dantzler:* If all other remedies have been checked for an animal that was rounded up and could not be placed, certainly humane destruction is the alternative we would go for. It would be far better than placement into a home which is not prepared to care for it or into an environment for which it would not adapt.
 - b. *Response by Gail Krandall Snider:* I also feel that we would rather see those animals put down than to be placed in bad homes. For the past 3 years, I managed a shelter in Idaho Falls, and I can tell you that local humane groups do not have funds, do not have manpower, to check up on all of these animals.
 - c. *Response by Dawn Lappin:* I am sure that no one in this room counts the adoption program as the solution to all the population problems on the public land. However, we have to take a stand on the adoption program simply because we have been blocked by the bureaucracy and their adoption program. The adoption program was working very successfully until Washington came in and decided they could do it more efficiently. . . I think WHOA takes the position that if animals cannot be adopted with (age, numbers), as long as it is a proven need, WHOA would go along with humane disposal.
 - d. *Response by Roger Van Teyens:* If there is a shown excess and the opportunity has been provided to the general public through these adoption programs and they say no we don't want them or they haven't responded within a certain period of time, I think it is similar to what we are facing with the cat and dog problem. There are so many out there and only so many good quality homes available. The other ones have to be humanely destroyed. We could go along with that. I think we get into some real hard questions as far as commercial use. Can you use them in a rendering plant? Can you use them in a can of dog food? I personally - and I am just trying to read the reaction of the general public out there as far as the letters we receive - would not go along with that aspect. They could not be used for commercial use at this point in time. Because of all the controversy that has gone on, I personally couldn't see a dog food manufacturer or any other manufacturer putting "wild horses" in a can. He might as well forget it as far as sales are concerned.
 - e. *Response by Susan Lock:* I think humane destruction is one of the options that is left to the secretaries under the law and I don't feel that any of us could oppose this. In fact, we would have to go along with this, but I do agree with Roger on the commercial products issue. I don't think that anyone at this point in time will go along with the sales of wild horse carcasses for pet food, retailing plants, fertilizer, whatever. I think that to a certain extent returning the body to the earth is recycling. . . leave the carcass there for predators because they need to eat too.
 - f. *Response by Yvonne Fisher:* More or less speaking for myself, we wonder why a lot of these animals that are obviously unadoptable are rounded up anyway. A certain number of horses have to remain on the range so why can't you, when you gather them up, cull them out? Leave some of the old boys to die by themselves instead of having to destroy them plus the trauma of having to stay in the trap for two or three weeks.
 - g. *Response by Mike Pontrelli:* Yvonne's suggestion, when you capture them, let those back out that you cannot place. Is that humane? What you do is change the age structure and you change the sex ratio of the original population that was there. And you put out more males than were there before and you put out a lot older animals than were there before and you break up band continuity. . . So I address this to you. We have got a lot of excess animals - many more than there should be - many more than the Adopt-a-Horse program can place. Mr. Dantzler said humane destruction. Is that agreeable to the rest of the humane groups?
2. *Question by Mike Pontrelli:* If you could dictate a disposal technique that would give a dollar return that went back into wild horse management, would this alternative be satisfactory to your group (humane organizations)?

Responses:

 - a. *Gail Krandall Snider:* I think that AHPA would probably like to see that money going into some research so you will not have to have yearly rodeos to keep the population down. . . AHPA thinks the thinking of the gentlemen this morning, Mr. Garth Baxter should be commended because it's one of the better methods of controlling the situation that I think we have heard in the past 10 years.
 - b. *Roger Van Teyens:* I think you are going to have to sell this to the public and maybe that's through us. I can sit here and say 'yes' but we have to go by our membership and Board of Directors. I can present the subject to them and even to our general membership but at the present time I would say the general public is going to say no.

- F. 3. *Question by Joseph H. Robertson:* On the Bureau's legal definition of commerce in terms of how the carcass of wild horses could be utilized under the Act, is non-profit use "commercial"?
- Response by Tim Monroe:* I would have to say I can't define commerce in the strict legal sense. But the Solicitor's Office in the Department of Interior, has simply said we cannot allow a horse to be converted to anything other than natural - whatever natural degradation occurs. We couldn't donate a carcass and then let someone just take it and process it for no profit or no gain to themselves.
4. *Question to Jim Bennetts by Joseph H. Robertson:* I am sure that you have read the law and have more understanding than I have. When I read it I couldn't see in it anything that prevented the carcasses of the horses from being disposed of in a humane manner to be turned over to some volunteer or non-profit, tax exempt organization. I wonder if you would give me your interpretation?
- Response:*
- a. *Jim Bennetts:* I think that could be a fair interpretation. As long as there wasn't a profit or commercial motive involved. That would be my own personal interpretation. Is that about correct, John?
- b. *John Miller:* Yes, I believe that's correct. The Act specifically states that there should be no consideration given for the products, which means it can't be paid for but as far as an out and out donation to a non-profit, tax exempt organization, to do whatever they want with it, that would be fine but then they would be limited from re-selling the products of the carcasses.
5. *Statement by Mike Pontrelli:* Milk is being poured out, crops being turned under and then you hear of feeding the hungry people of the world with wild horses. We have world-wide problems. One of the world-wide problems is too many people and there are people starving to death. I think we as a human race have to address ourselves to that. I'm not sure that this concern is going to get anyone close to it but we also have some very immediate problems and one may be way too many horses. I would like to second Joe's request. I would like the protection people to go back to their organizations and find out if, in fact, it is possible to use a product as emotionally important as a wild horse. If they will buy it, let's go with it, but if not, let's find some other alternative.
6. *Statement by Virginia Handley:* I would like to say that it's not just that people are turned off by eating horse meat. It is also that, if animals are sold then immediately the whole program becomes suspect to a lot of people. We fear that some vested interests will encourage disposing of a maximum number of animals because they are selling the carcasses. I think that is the danger that you will get into and how people might react.
- G. MEETING THE PRESENT CRISIS
1. *Statement, speaker not identified:* Tim Monroe said in no uncertain terms in the first day of this conference that he feels that because of the drought and because of the conditions here in Nevada at least we are getting mighty close to disaster. And I think we ought to listen to those people. . . We all have to go away from here remembering those words that were said.
2. *Statement by F. L. Dantzer:* I think we also need to think about the fact that the law was passed in 1971, and by the time rules were written, and so forth, we are really probably only looking at 5 years of actual management under the law. Now I am no biologist and I don't pretend to be, but I do know that in some population dynamic studies you are going to have an extraordinary escalation of population initially. . . Also, based on the fact that we are flying on information which government agencies including the BLM, admit that base standards are lacking (initial figures of the population in 1971). The credibility has suffered and it is suffering. I think when you look at all these things you have to ask yourself: is that information something we base an entire ecosystem on? I don't think so. . . The Humane Society of the United States was opposed to helicopter use legislation. This is now passed, and is all academic now. We were opposed to it primarily from the standpoint that it was in fact lack of wise management including the use of mechanized vehicles, that in our judgement caused the 1971 law to come into existence to begin with. Therefore, going back to these methods is essentially a relaxation of practices which put us where we are today, put the horses in serious trouble. So that was our primary reason for opposing it. After passage we were asked to respond to proposals on the regulations as we have done so. I am certain a number of groups represented at this table have done so as well. So while some of us may have opposed it, and did so vigorously, we, nevertheless, have tried to work within the system giving our views as we see them.
3. *Statement of Roger Van Teyens:* From my experience in Oregon a few weeks ago, we are looking at a lot of injuries occurring to saddle horses and I think this was something that happened daily. This is one of the reasons we are taking a position at the present time of saying, O.K., let's try helicopters. Also, we have seen it work with other animals. But again I am going to reemphasize over and over again, it has got to be proper and humane use of that helicopter or else we are going to have the horror stories that happened years ago.

- G. 4. *Statement by Dawn Lappin:* Neither WHOA nor IHPA at this time has blocked any reduction of horses. Simple.
5. *Statement by Yvonne Fisher:* We have supported what we consider were reasonable reductions by the BLM. We have not blocked any of these reductions and it is now the law and BLM is responsible for protection and management and management also means reduction. . . We are trying to work within in the framework of the law. We are not trying to change the law, we are trying to make the law work and so we are supporting the helicopters if it is done humanely.
6. *Statement by Dick Jenkins:* I would like to stand up in defense of the horse protection groups. When I was removed from my ranch we were in a condition of being completely overrun with horses. Luckily we were able to have an advisory board meeting at John Day and there were several representatives from environmental and protection groups there. We took them in a helicopter out over the area, showed them the horses. Put them on the ground and showed them the range and they are reasonable people. All you have to do is show them, explain to them and they will understand the problem and they are behind you all the way. They were in that case and I think they will be all the way through. They just do not like things that have been done that were shady or by incompetent people. They just want the truth. That's all.

H. RESEARCH NEEDS

1. *Statement by Michelle Harvey:* I would like to answer the question about the types of research that protectionist organizations would like to see. Specifically, I think, we would like to see an individual count by somebody who is not for either a horse protection organization or a livestock interest. I think we would like to find out facts accurately about percentages of increases in the horse numbers. Just exactly what damage livestock does to a range? What damage horses do to a range? What the difference is between those two? We would like to find answers to the problem of increasing horse herds, factors affecting mortality rates, what are they? What exactly is the impact of domestic horses into the wild horse herd and things of this sort.
2. *Statement by Jeanne Edwards:* I personally, as a private citizen, often times feel a great deal of frustration in "research." I need the results of research available to me and I am speaking now as a rancher. If I am going to be a good land steward, I need research results available to me and it's very difficult for me to go back to various libraries in various agencies. I think that if researchers want strong public support, they must show that their money, their time, their research, has done more than put a Ph.D. after somebody's name.
3. *Statement by Tom Ballow:* As far as research on horses is concerned, I think there is an awful lot of information about horses. If you are thinking about specific research on horses as they relate to range management in a free-roaming condition, why that is possibly something that we might need. If you are talking about disease, predators, parasites, things like this, I think that there is an abundance of research that has already been done and available.
4. *Statement by Rex Cleary:* The thought has occurred to me, and I haven't heard it expressed here, that probably we could gain something from what you might call social research. We would conduct research into an attitude survey of the public-at-large in the nation - looking into how the public reacts to different alternatives for the disposal of excess animals - use of meat at zoos, use of meat for prisons, use of meat for starving nations. And if that research finds that any alternatives for disposal are within limits of acceptability to the public-at-large, then the research might go along and develop procedures for handling and processing along these lines. The group here has constantly groped with the gnawing question of just what would be and what would not be accepted by the public-at-large. I think it would sure be helpful if we could, in an orderly manner, probe into it and use it, if we could make a determination rather than having to rely constantly on what we think the reaction is going to be.
5. *Statement of Doug Reynolds:* A couple of years ago, when this Heil money first became available, we sat down and made a big long list of things that were first priority as far as research was concerned. This was submitted to the committee and they looked it over. Some were in favor of research and some were not. But at that time with my interests, really selfish interests, the things I put down were all these behavioral things, social actions, social traits of the horse. But as the time goes past and the drought comes and the wild horse numbers increase, I don't know how many there are, it's academic to me, it's a relative thing. I know I have spent more time in the saddle than anybody in this room, and I know what I see. If I can sit on a peak and I can look out and see 14 bands of horses just within my view or I count 250 head from another peak, that's a lot of horses. I don't know how many there are. I am really not even interested whether it's 30,000 or 40,000. Really as far as research is concerned, as I see it now with the emergency here on us, what difference does it make about all these behavioral traits? I would like to know about them because I take them and I apply them in my duties as a horse specialist. But right now, when the gatherings are going to take place, what good would it do when we pursue the horses by helicopter? We mix them all up, we take this stud out,

- H. 5. these 2 mares out. They are all mixed up anyhow. Right now I think the biggest need for research is to find ways to humanely capture and pursue these horses and to reduce our numbers down to populations that people are going to enjoy seeing.
6. *Question by Walt Conley:* I have got a question for the National Horse Advisory Board: Will you accept in some context the responsibility for screening research proposals? Is it possible that we could designate the Advisory Board as peer review unit? Let the proposals come to you. Right now we can't even find anybody to send one to and everybody is screaming for data.
- Response by Bill Reavley:* As I understand it, at the present time the wild horse and burro board is under suspension, not under suspicion--it's always been that. But its activities have been suspended for the present because the new administration is looking over all advisory boards and it could be that they may be disbanded. . . I think the suggestion that has been made is a good one and I think the board would have to study it to see if it felt it had the capabilities to do that.

I. ENVIRONMENTAL EDUCATION

1. *Question by Nick Theos:* Why do we seem to get a lot of information into schools about wild animals and endangered species but we can't get much information or interest in the schools on domestic animals?
- Response by Rudy Schafer:* I think that part of the problem is that we have changed over the years. A lot of our teachers are city people who are educated in the city. I really think you have got to look at the whole environment -- all the things in it and all the pieces of it -- and you can't deal with it on a piece-meal basis. I think what you say is very important. Youngsters in a city, you ask them where food comes from -- everybody knows that, food comes from a store, doesn't it? . . . I don't know what the law in Nevada is, but in California we don't have any requirement that teachers have any instruction in environmental matters or environmental concerns. (Eds. Note: Nevada does require teachers to have instruction in environmental matters, but not much.) . . . Text books are important. A recent survey indicated that 90% of the teachers said that the text materials they use influences to a major degree their instructions. Yet less than 1% of the money spent for education in the U.S. goes on text materials. Text book publishers say the environmental field is dead. We can't sell anything in that field.
2. *Question by Rex Cleary:* How can or what can we do about getting wild horse information into an environmental education program?
- Response by Rudy Schafer:* It needs to be a part of a whole picture not just an issue that you can deal with on rather specific terms. I think you are concerned with an issue and you should be trying to get factual information into the hands of youngsters on which to make decisions. . . Another thing I was trying to say was don't go in with an idea of trying to indoctrinate a point of view. We can't teach youngsters enough facts. We don't even know what the facts are going to be in 25 years. But we can work with the process of decision making and we can teach kids how to understand problems and how to solve problems.

J. IMPORTANCE OF LIVESTOCK GRAZING ON PUBLIC LANDS

1. *Statement by Michelle Harvey:* I find it hard to believe, coming from the mouth of a cattle person or a livestock person, that they are terribly concerned about the starving public when lands that are used for grazing in some cases can be used more efficiently for grain crop production that could be used to feed these people better, that could produce more protein to feed these people than meat. Meat is not an essential commodity. It just isn't.
- Responses by:*
- a. *Dick Jenkins:* In response to the young lady's question on why can't some of the range lands be converted to grains rather than grazing of livestock - The range that we use for cattle is what is classified as non-tillable land. You would simply have to either grind up rocks, dig more soil out of them or it would be so expensive to clear the rocks off that it just isn't feasible, it's not even considered. It's physically impossible to convert these rangelands.
- b. *Jack Lavin:* I wanted to respond from the standpoint of the National Forest lands. Most of the lands that were suitable for agricultural production were homesteaded in the past. So there is very little National Forest land that is suitable for agriculture. The BLM just put out a report in Nevada. . . It identified, out of the total national resource lands in Nevada, 50,000 acres (of about 60 million acres) that may be available or suitable for agricultural purposes. Then the other thing, getting back to the discussion of grain-fed beef, I think that maybe one of the great opportunities to save energy will be greater use of the western ranges. I think this may hold one of the greatest opportunities for producing protein with low energy in the future.

- J. 1. c. *Dave Secrist*: There is no question in anybody's mind that is knowledgeable that forage animals are the only way of converting the production of the public lands we operate and run on into useable protein. But now you brought up the feed lot part of it. We are in an area where a good amount of our cattle go through feed lots. I wonder if you realize that 50% of the cattle that go through feed lots are used as red meat. 50% of those cattle are used for byproducts. Do you know it takes the pancreas from 1,500 cattle to make one ounce of insulin, a byproduct of the beef (red meat) industry. Out of the 50% of the beef that is used for byproducts, there are 134 medicines made. There are 4½ million people involved in the red meat industry. This doesn't take into consideration the 50% of the beef animal that goes into byproducts.

K. THE HEIL COMMITTEE

1. *Question by Yvonne Fisher*: Would you explain the purpose and position of the Heil Committee in Nevada?
Responses by:

- a. *Mike Pontrelli*: Leo Heil left about \$500,000, probably less than that because properties were destroyed in a hurricane or tornado or something, and there is an argument between one state against another about inheritance so the amount of money is in question. His will stated that this was money to be given to the State of Nevada for the protection of wild horses and that is all it said. The Governor appointed a committee three years ago. Little Joe Fallini is a member of that committee. He can respond after me. The question was in terms of research. The Governor appointed a committee and they accept recommendations from around the State. Your group has suggested research. A number of other groups including the University have suggested research as a way to go for long-term protection of wild horses. You learn about them, you save them. This has not been accepted by the Heil Committee but then neither has anything else yet.
- b. *Joe Fallini, Jr.*: The "available money" started out somewhere around \$500,000 and each time we have a meeting this figure drops. I think before you will see anything from this committee, you are going to have to see a firm commitment on the money that's actually available. I will guarantee you that when this money does go out it will be for the purpose it was set up for - preservation of wild horses.
- c. *Pontrelli*: I will just finish it off by saying the University of Nevada's last request on research to the Heil Committee involved an interest-only request for the amount of money already on hand. So it wasn't using any of the principal but it was an interest-only and it was intended as seed money to go after research funds and I think the College of Agriculture has a reasonably good reputation of being a good research group.

L. THE NATIONAL PARK SERVICE AND WILD HORSES

1. *Question by Nick Theos*: Why does the National Park Service not allow or now want wild horses in National Parks?

Response by Bernard Shanks: The Park Service is, of course, one of the most purist of all the land management agencies. Their basic mandate from their 1916 legislation is to maintain the parks and monuments in a natural condition for generations yet unborn and they still interpret that very strictly. It is not policy to have exotic species of any kind. The Park Service would like to eliminate dandelions, if they could. They have wild horses, they have goats, they have mongooses. The monument in the West that has the biggest horse problem, I understand is the Dinosaur National Monument and it has 300 or 400 horses. Of course, Grand Canyon, Death Valley, Joshua Tree, Organ Pipe National Monuments have considerable burro populations. . . There are about 30 parks that have domestic livestock grazing in them. . . But basically the Park Service doesn't want any exotic species in the park. That's their policy.

I worked in the Grand Canyon in 1965 and they had borrowed two military helicopters. Every morning at the crack of dawn these two helicopters took off and flew back up in the canyons and rangers carried automatic shotguns with rifle slugs. They would hover over these bands of burros and they would shoot them and let them lie. Their whole policy was "we have got to do this early in the morning before tourists come out. We have got to do this away from the rim where Bright Angel Lodge is and we don't want to stir up any trouble." At the same time they had given Walt Disney a permit to film a movie called "Brightly the Burro" in Grand Canyon which romanticized the burro. Well, times have changed over the last 12 years and now they are writing a draft of the Environmental Impact Statement and all sorts of groups are raising hell and they will end up in court.

I just came back from Death Valley two days ago and when I left the Valley, at one of the last pull offs there was a burro standing there, a wild burro, and old Jack. He was all scarred up, obviously a tough old critter

- L. 1. and he was getting all the tourists to stop and turn on the water faucet so he could have a drink. He had big brown eyes and he looked just as pleasant and nice and in fact he would rub his neck on the faucet and get the water to squirt out on to his legs. Then he would pose and then pretty soon someone would come along and turn the handles for him. There are about 1200 burros in Death Valley and I can just see the turmoil when they say we are going to blast all these guys and let them lay for the coyotes and buzzards. They will have a real P.R. problem. The Park Service doesn't come under the Wild Horse and Burro Act of 1971. It's specifically excluded from it.

M. AVAILABLE LITERATURE

1. *Question, speaker not identified:* Where can we get information on available literature in libraries and elsewhere?

Response by Milt Frei: The Denver Service Center a couple of years ago contracted with the Denver Public Library for development of both a technical note and annotated bibliography on both wild horses and wild burros. Those are presently in the process of being published and they should be available, I would image, within a couple of months. They don't include all research on horses or burros, either one, but they do at least provide a base for summarizing what you are talking about.

APPENDIX

PAUL LAXALT
NEVADA
COMMITTEE ON JUDICIARY
COMMITTEE ON FINANCE
COMMITTEE ON ENERGY AND
NATURAL RESOURCES

United States Senate

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SENO OFFICE
300 SOUTH STREET
(702) 784-5568

April 1, 1977

Dear Gentlemen:

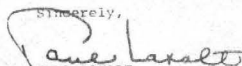
I would like to congratulate you and the many others who assisted in organizing this National Wild Horse Forum. I think it is particularly significant that this be organized by the University of Nevada since it is estimated that 60 percent of the wild horse populations are in Nevada.

The need to improve communication among diversified interest groups and to provide a basic reference document-and-guide for future actions in matters relating to free-roaming horses is evident. Indeed, greater public understanding of the wild horse situation, plus public involvement in decisions concerning these animals is vital.

While wild horses continue to be the focal point of a highly controversial issue, it has become apparent that the 1971 Act is inadequate and fails to resolve the management problems of increasing populations. It is obvious that something needs to be done when both the Bureau of Land Management and the Forest Service maintain that the 1971 Act does not provide flexibility for disposing of excessive animals too numerous in some areas to sustain a balanced and suitable habitat.

Because of the diversity of points of view that now exist and the decisions that must be made in the very near future, I look forward to receiving a copy of the proceedings. The discussions you will be participating in will be of key importance and will provide a basic framework within which future decisions may be made.

Sincerely,


PAUL LAXALT
U.S. Senator

PL/brd

Dean Dale W. Bohmont
Mr. John L. Artz
Fleischmann College of
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University of Nevada, Reno
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JIM SANTINI
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Congress of the United States
House of Representatives
Washington, D.C. 20515

COMMITTEES:
INTERIOR AND PUBLIC AFFAIRS
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PUBLIC LANDS
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TRANSPORTATION AND COMMERCIAL
OVERSIGHT AND INVESTIGATION
SELECT COMMITTEE ON AGING

STATEMENT TO NATIONAL WILDHORSE FORUM

Those who are truly familiar with the wild-horse situation recognize that despite the substantial management progress that has been made in recent years, many issues still need to be resolved. Overpopulation and subsequent overgrazing, conflict with other wildlife, conflict with private landowners, and problems inherent in a "private maintenance" system are some of the major concerns for which solutions must be found.

Proper management and humane treatment of wild horses are not mutually exclusive. Both goals can be achieved, but only after all involved interest groups have had the opportunity for input into the decision-making and balancing process. Land users as well as horse protection associations, land managers as well as conservation groups, and perhaps most important of all, the general public, must participate in formulating reasonable solutions at the grass-roots level. I believe that the National Wildhorse Forum made significant progress in that regard, and I commend the organizers and participants of the Forum for their efforts.

COPY
TELEGRAM, DATED APRIL 4, 1977, WASHINGTON, D. C.
FROM JAMES A. MCCLURE,
UNITED STATES SENATOR FROM IDAHO
TO JOHN L. ARTZ, FORUM CHAIRMAN

Please extend my congratulations to those attending the National Wild Horse Forum for attempting to resolve a sensitive and difficult problem through a full exchange of ideas. You are to be commended for the initiative in assembling all the key organizations who have an interest in this issue. The Management of the wild horse population and its relationship to wildlife, livestock and other range values presents a major challenge.

Coupled with the emotions that the wild horse issue brings to the surface your task is made even more difficult.

I have been in close contact with Senators Laxalt and Hansen, as well as the Bureau of Land Management. We share a common interest in resolving the population management of wild horses in a humane manner to reach a goal of balancing the use of our public range. I have discussed draft legislation with Jim Bennetts of Challis, Idaho who is on a panel April 5, and requested that he get your reaction and further suggestions to this draft proposal. I am looking forward to receiving a full report of your meeting and following up with the objective of resolving this issue in a humane and satisfactory way.

**Remarks by
Congressman James Santini
April 7, 1977**

(Includes Responses by the Congressman to Questions from Forum Participants)

Opening Remarks

I certainly feel it's appropriate that a representative from the legislative angle, however suicidal that impulse may be, come and share some highlights and impressions on this particular issue.

It has been a thorny problem that we have grappled with on the legislative front. We have had both perspectives tossed at us with a fair degree of frequency, I might add. I suppose at one extreme in the polarization is the gattling gun crowd who feel there is an immediate solution to the problem. They would simply mount the gun on the front of the tank and go forward. On the other side, there has been a representative point-of-view that seems to feel there is absolutely no problem, and any effort to tamper with the law would be equivalent to disrupting the ten commandments. Somewhere in between, I think, is where it's at in terms of a balanced and fair analysis.

I am encouraged, at least in terms of the fleeting impulses received over my cup of coffee this morning, that some persons attending the Forum feel very positive, some feel very much encouraged about what has been agreed or disagreed on, but in a reasonably amicable fashion -- something short of marching through the streets with a corpse. It has characterized much of the exchange here. I think that's great!

I will throw it open for questions anyone would like to toss my way.

Questions and Santini's Responses

Q. Relating to the transfer of title of wild horses when there are removed from the federal range: What is your (Santini's) attitude toward changing the law to allow transfer of title?

A. That is one of the thorniest problems and the one in which representatives of land management agencies have come forward -- Forest Service, Bureau of Land Management, Department of the Interior -- and they say that, in testimony after testimony we've received, managerial disposition is necessary. My posture from the legislative contemplation of things is: Fine, in this respect -- work it out! You are the ones that either from a managerial standpoint, personal instinct standpoint, or from a day-to-day survival standpoint are involved in this problem. What is your solution? What is needed is some consensus of what is a rational solution toward the problem that recognizes the concerns both of the conflicting points of view and the interests here that can be legislatively implemented very rapidly. We made a modest hit-and-miss effort at it in the Organic Act simply because the polarization was still there, simply because there was no consensus. I don't say a unanimity. There was not a consensus of points of view about what was a satisfactory solution. The neat thing about what you're doing this morning is that you are getting closer to achieving a representative and fair and balanced consensus about what that solution will be. I think Secretary Andrus, I think Secretary Bergland, I think the agencies involved would find more courage in resolve, in moving forcefully in a public arena with the knowledge that there was this kind of consensus.

Q. Relates to the Packwood Bill which is now before Congress and proposes to hold title transfer until one year after horses are adopted: Santini is asked his position on this Bill.

A. I don't know the practical problems and I don't pretend to have this expertise. If land management agencies, say, yes, that's rational and workable, and we can live and make that an effective kind of deterrent that reaches the bounds of the program, I say great. But be sure that your representatives of the governmental agencies are willing to stand behind you on that posture. Because if they come in and say it still creates practical enforcement problems that they can't live with -- whoosh -- down the drain it goes.

Q. Asks Santini what he feels are the chances for the Bureau of Land Management to obtain special or emergency funds for roundups of wild horses which are necessary due to current drought conditions.

A. I don't know but I will find out. Again, it's dependent upon if the Forest Service or Bureau of Land Management again request it as a budget or a line item in their budget. I have enough trouble on day-in, day-out basis trying to figure out what should not be spent rather than worrying about what should be spent. I will check this out. Again, land administering agencies must come forward and say, "We need this money. We don't have it now and it should be included in our budget." There may be some general funds within the agencies - in terms of their internal administrative discretion - that could be used for this purpose. It would certainly be cleaner and clearer if they could do it the way you're suggesting.

Q. Asks whether he favors turning federal lands over to the states for management.

A. There are certain multiple use lands that I think are most suitable for federal ownership. I think a lot of lands could be and should be in the hands of the state of Nevada.

September 8, 1959
(H. R. 2725)

Public Law 86-234

AN ACT

To amend chapter 3 of title 18, United States Code, so as to prohibit the use of aircraft or motor vehicles to hunt certain wild horses or burros on land belonging to the United States, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) chapter 3 of title 18, United States Code, is amended by adding at the end thereof the following new section:

"§ 47. Use of aircraft or motor vehicles to hunt certain wild horses or burros; pollution of watering holes

"(a) Whoever uses an aircraft or a motor vehicle to hunt, for the purpose of capturing or killing, any wild unbranded horse, mare, colt, or burro running at large on any of the public land or ranges shall be fined not more than \$500, or imprisoned not more than six months, or both.

"(b) Whoever pollutes or causes the pollution of any watering hole on any of the public land or ranges for the purpose of trapping, killing, wounding, or maiming any of the animals referred to in subsection (a) of this section shall be fined not more than \$500, or imprisoned not more than six months, or both.

"(c) As used in subsection (a) of this section—

"(1) The term 'aircraft' means any contrivance used for flight in the air; and

"(2) The term 'motor vehicle' includes an automobile, automobile truck, automobile wagon, motorcycle, or any other self-propelled vehicle designed for running on land."

(b) The analysis of such chapter 3, immediately preceding section 41, is amended by adding at the end thereof the following new item:

"47. Use of aircraft or motor vehicles to hunt certain wild horses or burros."

Approved September 8, 1959.

PUBLIC LAW 94-579—Oct. 21, 1976

MANAGEMENT OF CERTAIN HORSES AND BURROS

SEC. 404. Sections 9 and 10 of the Act of December 15, 1971 (85 Stat. 649, 651; 16 U.S.C. 1331, 1339-1340) are renumbered as sections 10 and 11, respectively, and the following new section is inserted after section 8:

"SEC. 9. In administering this Act, the Secretary may use or contract for the use of helicopters or, for the purpose of transporting captured animals, motor vehicles. Such use shall be undertaken only after a public hearing and under the direct supervision of the Secretary or of a duly authorized official or employee of the Department. The provisions of subsection (a) of the Act of September 8, 1959 (73 Stat. 470; 18 U.S.C. 47(a)) shall not be applicable to such use. Such use shall be in accordance with humane procedures prescribed by the Secretary." 16 USC 1338a.

(4) processes or permits to be processed into commercial products the remains of a wild free-roaming horse or burro, or

(5) sells, directly or indirectly, a wild free-roaming horse or burro maintained on private or leased land pursuant to section 4 of this Act, or the remains thereof, or

(6) willfully violates a regulation issued pursuant to this Act, shall be subject to a fine of not more than \$2,000, or imprisonment for not more than one year, or both. Any person so charged with such violation by the Secretary may be tried and sentenced by any United States commissioner or magistrate designated for that purpose by the court by which he was appointed, in the same manner and subject to the same conditions as provided for in section 3401, title 18, United States Code.

(b) Any employee designated by the Secretary of the Interior or the Secretary of Agriculture shall have power, without warrant, to arrest any person committing in the presence of such employee a violation of this Act or any regulation made pursuant thereto, and to take such person immediately for examination or trial before an officer or court of competent jurisdiction, and shall have power to execute any warrant or other process issued by an officer or court of competent jurisdiction to enforce the provisions of this Act or regulations made pursuant thereto. Any judge of a court established under the laws of the United States, or any United States magistrate may, within his respective jurisdiction, upon proper oath or affirmation showing probable cause, issue warrants in all such cases.

Sec. 9. Nothing in this Act shall be construed to authorize the Secretary to relocate wild free-roaming horses or burros to areas of the public lands where they do not presently exist.

Sec. 10. After the expiration of thirty calendar months following the date of enactment of this Act, and every twenty-four calendar months thereafter, the Secretaries of the Interior and Agriculture will submit to Congress a joint report on the administration of this Act, including a summary of enforcement and/or other actions taken thereunder, costs, and such recommendations for legislative or other actions as he might deem appropriate.

The Secretary of the Interior and the Secretary of Agriculture shall consult with respect to the implementation and enforcement of this Act and to the maximum feasible extent coordinate the activities of their respective departments and in the implementation and enforcement of this Act. The Secretaries are authorized and directed to undertake those studies of the habits of wild free-roaming horses and burros that they may deem necessary in order to carry out the provisions of this Act.

Approved December 15, 1971.

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 92-480 accompanying H.R. 9890 (Comm. on Interior and Insular Affairs) and No. 92-681 (Comm. of Conference).

SENATE REPORT No. 92-242 (Comm. on Interior and Insular Affairs).
CONGRESSIONAL RECORD, Vol. 117 (1971):

June 29, considered and passed Senate.

Oct. 4, considered and passed House, amended, in lieu of H.R. 9890.

Dec. 2, House agreed to conference report.

Dec. 3, Senate agreed to conference report.

WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 7, No. 51:

Dec. 17, Presidential statement.

Power of arrest.

Limitation.

Report to Congress.

Studies.

Horses and burros on public lands.
Methods of hunting.
18 USC 41-46.

Title 43—Public Lands: Interior
CHAPTER II—BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR
SUBCHAPTER D—RANGE MANAGEMENT (4000)
[Circular No. 2422]

PART 4700—WILD FREE-ROAMING HORSE AND BURRO PROTECTION, MANAGEMENT, AND CONTROL

Use of Helicopters in Management of Wild Free-Roaming Horses and Burros

AGENCY: Land Management Bureau, Interior.

ACTION: Final rulemaking.

SUMMARY: This rule prescribes conditions under which helicopters may be used in the gathering and capturing of wild free-roaming horses and burros. This rule implements part of the Federal Land Policy and Management Act of 1976 (16 U.S.C. 1338a) and is intended to provide the most humane method of removing excess horses and burros.

EFFECTIVE DATE: May 25, 1977.

FOR FURTHER INFORMATION CONTACT:

Robert J. Springer, 202-343-4328.

SUPPLEMENTARY INFORMATION: On January 25, 1977, the Land Management Bureau: Interior published proposed rulemaking (43 FR 4500) regarding the use of helicopters in the management of wild free-roaming horses and burros. Public comments were invited through April 22, 1977 and public meetings were held in 10 western States to discuss the proposal with interested persons. Written comments were received from 30 sources and verbal comments were recorded from 82 persons. Comments from all sources are summarized as follows:

Forty-two persons and interest groups expressed general concurrence with the rulemaking and nine persons and interest groups expressed general opposition to the rulemaking. Comments of persons and groups who made specific suggestions are grouped as comments leading to changes in the rulemaking, comments not leading to changes in the rulemaking, and suggested changes not possible under the existing authorities.

COMMENTS LEADING TO CHANGES IN THE RULEMAKING

1. It was suggested that the definition of "malicious harassment" be clarified to include deliberate disregard for the welfare of the animals.

2. It was suggested that the definition of "humane procedure" be changed by eliminating the clause beginning with the words, "in all actions involving roundups," to eliminate redundant and limiting words.

3. Thirty persons and groups suggested that the use of helicopters to gather claimed animals should be permitted. The rulemaking is amended to provide that the authorized officer may use helicopters in areas where all animals are claimed, if forage, habitat, or watershed resources are being adversely affected by horses and burros and the use of helicopters is the only feasible method

available to capture and remove the animals. Captured animals determined to be privately owned may be secured by the appropriate claimant upon payment of trespass charges under 43 CFR 4720.3 and a per head share of the helicopter rental and associated costs of the roundup and capture of the animals.

4. Three comments on § 4730.7-1 regarding the use of fixed-wing aircraft suggested (a) use no fixed-wing aircraft, (b) use no fixed-wing aircraft below 1,000 feet in altitude, and (c) ensure that wording in the rulemaking will permit utilization of fixed-wing aircraft to carry personnel and supplies to gather sites if needed.

The concerns were safety of people, unnecessary harassment of animals, and flexibility in the choice of support vehicles to conduct an efficient operation. The action is clarified to satisfy all three concerns.

5. It was suggested that § 4740.4(a)(4) be changed to provide that animals be moved in such a way as to prevent unnecessary stress or injury during capture operations. The words "or injury" are added.

6. Comments addressed to the issue of sorting animals for transportation suggested criteria for sorting and provision for efficiency of operations. Section 4740.4(b)(4) is changed to respond to both concerns.

7. Other minor editorial changes were made as identified.

COMMENTS NOT LEADING TO CHANGES IN THE RULEMAKING

1. It was suggested that the definition of "malicious harassment" be reworded to remove the exclusion of the agencies and to use only the dictionary definitions of the terms. This is not practical because the objective is to include any unlawful gathering of animals as malicious harassment regardless of methods used. Therefore, to avoid confusion, lawful gathering of animals by the agencies under humane, controlled conditions must be excluded from the meaning of the terms.

2. It was suggested that "undue stress" be defined. The term used in § 4700.0-5(m) is "unnecessary stress." The comments indicated a desire to set criteria for measuring stress. No criteria have been set which could be applied in the field. It is understood that the animals will be under stress during the operation. The intent of this rulemaking is to keep the stress to a minimum.

3. Several comments suggested elimination of trespass charges on claimed animals. Trespass was not a substantive issue in the proposed rulemaking.

4. Several comments suggested allowing State brand and estray laws to apply in ownership determinations. No change is needed since these are the standards currently used by the authorized officer and the appropriate State official to determine ownership of claimed animals.

5. It was suggested that saddle horses used simultaneously with helicopters would add efficiency. No change is needed; both can be used on the same operation.

6. It was suggested that helicopters only be allowed to fly under 1,000 feet at the immediate capture site. This change is not made because a capable pilot and the authorized officer must have flexibility to determine a safe and efficient altitude in accordance with field conditions and terrain encountered on each operation.

7. Suggestions were received to provide for more than one helicopter on a gather and to provide for ground to air communications. Both are permissible under the rules as written.

8. It was suggested that § 4730.7-3 be reworded to allow the utilization of wheeled vehicles in the actual driving and capture of animals. The change would violate existing law.

9. Suggestions were made that the rules provide that a representative of a humane organization be in any helicopter engaged in a gather of horses and burros, that a public representative be present, and that the authorized officer always be in the helicopter. These changes are not made because, for safety and liability reasons, no one except the pilot and authorized officers should be in the helicopter and in certain situations the pilot may determine that no other person should be in the helicopter for safety reasons.

10. It was suggested that the rules be written to provide for gathering only one band at a time. Such a provision is impractical because there may be natural mixing of bands at water holes or accidental mixing of bands by the disturbance of a roundup. Additionally, the efficiency of operations and related expense of gathering in an area where several bands range would be significantly affected by a piecemeal effort directed to single bands of horses and burros.

11. It was suggested that no contract be issued on a per head basis. To make the suggested provision would restrict contracting to a time of operation basis and could be expected to lead to much higher costs per animal captured.

12. A comment suggested that in gathering and driving animals, weaker animals such as colts and mares in foal should be considered in setting the speed of movement. This is provided for in § 4740.4(a)(2).

13. Several comments suggested that the regulations provide for notification of humane groups, special interest groups, and the general public and that hearings be conducted prior to each roundup. It is not necessary to include such provisions in these regulations; the provisions of the Act relating to public hearings can be more efficiently complied with on an area, State, or regional basis at the discretion of the authorized officer.

14. It was suggested that these rules include a provision for medical examination of horses to ensure that disease is not transmitted to already domesticated animals. No change is needed. The precaution is already being taken.

SUGGESTED CHANGES EXCEEDING EXISTING AUTHORITY

The following suggested changes in the proposed rulemaking cannot be made because they violate existing authorities:

1. Allow roundup of wild free-roaming horses and burros by any method and free of charge by an individual.
2. Provide for the sale and passage of free title on animals.
3. Pass all responsibility for wild free-roaming horses and burros to the State government.
4. Do not allow Federal government to gather animals because of competition with free enterprise.

Additionally, these comments and suggestions do not belong in the regulations but will be considered in the preparation of manual directives for the program or in the specific plans for each roundup and capture operation:

1. Operate in a manner that will keep bands together.
2. If more than one band is handled at one time, transport the animals immediately after capture to minimize fighting and the chance of injury.
3. Consider issuing contracts to reliable individuals using saddle mounts to gather animals.
4. Provide for a reconnaissance flight to locate and map potential hazards such as cliffs and fences before a gather-and-drive is underway.
5. For the vehicles to be used to transport captured animals provide specific standards as to the construction of the inside of the vehicle, its condition as related to possible injury inflicting hazards, and the number of animals to be transported per vehicle.
6. In transporting of animals, provide for adequate rest periods and feeding and watering at appropriate intervals.

The proposed rulemaking amending Part 4700, Subchapter D, Chapter II, Title 43 of the Code of Federal Regulations is adopted with changes as set forth below.

GUY R. MARTIN,
Assistant Secretary
of the Interior.

MAY 20, 1977.

1. Section 4700.0-3 is revised to read as follows:

§ 4700.0-3 Authority.

The Act of December 15, 1971 (16 U.S.C. 1331-1340), as amended, and the Act of June 28, 1934 (43 U.S.C. 314-315r).

2. Section 4700.0-5 is amended by revising paragraph (l) and by adding new paragraphs (k), (l), and (m) to read as follows:

§ 4700.0-5 Definitions.

(l) "Act" means the Act of December 15, 1971 (16 U.S.C. 1331-1340), as amended.

(k) "Malicious harassment" means any intentional act which demonstrates a deliberate disregard for the well-being of wild free-roaming horses and burros and which creates the likelihood of

injury, or is detrimental to normal behavior patterns of wild free-roaming horses and burros including feeding, watering, resting, and breeding. Such acts include, but are not limited to, unauthorized chasing, pursuing, herding, roping, or attempting to gather or catch wild free-roaming horses and burros. It does not apply to lawfully conducted activities by or on behalf of the Bureau of Land Management or the Forest Service in implementation or performance of duties and responsibilities under this Act.

(l) "Captured animal" means a wild free-roaming horse or burro taken and held in the custody of the authorized officer. This term does not apply to an animal placed in private custody through a cooperative agreement under § 4740.2 (b) or § 4750.2.

(m) "Humane procedure" means kind and merciful treatment, without causing unnecessary stress or suffering to the animal.

3. Section 4720.2 is amended by revising paragraph (a) to read as follows:

§ 4720.2 Claimed animals.

(a) Any person claiming ownership under State branding and estray laws of unbranded or branded horses or burros on public land where such animals are not authorized must present evidence of ownership to justify a roundup before permission will be granted to gather such animals. Claims of ownership with supporting evidence were required to be filed during a 90-day claiming period which expired November 15, 1973. Unauthorized privately owned horses or burros entering onto the public lands after November 15, 1973, may be claimed by filing an application with the District Manager. All written authorizations to gather claimed animals shall be on a form approved by the Director and shall provide for compliance with appropriate provisions of Subpart 4720. After such public notice as the authorized officer deems appropriate to inform interested parties, he may authorize the gathering or roundup. The authorized officer shall provide in the authorization that the gathering or roundup shall be consistent with these regulations; shall establish in the authorization a reasonable period of time to allow the gathering of the claimed animals; and shall provide such other conditions in the authorization which he deems necessary to minimize stress on any associated wild free-roaming horses or burros and to protect other resources.

(b) Animals captured in Bureau of Land Management conducted roundups and determined to be privately owned may be secured by the appropriate claimant upon payment of trespass charges in accordance with § 4720.3, and a per head share of helicopter rental and other associated costs determined appropriate by the authorized officer.

4. Subpart 4730 is amended by adding §§ 4730.7, 4730.7-1, 4730.7-2 and 4730.7-3 to read as follows:

§ 4730.7 Aircraft and motor vehicles.

§ 4730.7-1 Fixed-wing aircraft.

Fixed-wing aircraft may be used for inventory, observation, and surveillance purposes required for the administration of the Act. Such aircraft use shall be consistent with the Act of September 8, 1959, as amended (18 U.S.C. 41 et seq.). Fixed-wing aircraft shall not be used in connection with capture operations except as support vehicles.

§ 4730.7-2 Helicopters.

Only the authorized officer may use or contract for the use of helicopters in the administration of the Act. Helicopters may be used in all phases of the administration of the Act including, but not limited to, inventory, observation, surveillance, and capture operations (see § 4740.4). Helicopters may be used in areas where all animals are claimed, only if forage, habitat, or watershed resources are being adversely affected by horses and burros and helicopters are the only feasible method available to capture and remove the animals. The authorized officer shall supervise all helicopter use as follows:

(a) The authorized officer shall have the means to communicate with the pilot and be able to direct the use of the helicopter.

(b) The authorized officer shall be able to observe the effects of the use of the helicopter on the well-being of the animals.

§ 4730.7-3 Motor vehicles.

Motor vehicles may be used in the administration of the Act except that such vehicles shall not be used in connection with capture operations for driving or chasing the animals. The use of motor vehicles for the purpose of transporting captured animals is subject to the provisions of § 4740.4 (b).

5. Subpart 4740 is amended by adding § 4740.4 to read as follows:

§ 4740.4 Humane use of helicopters and motor vehicles.

(a) The use of helicopters is authorized to locate the animals involved and for related purposes such as to transport personnel and equipment. The condition of the animals shall be continuously observed by the authorized officer and should signs of unnecessary stress be noted, the source of stress shall be removed so as to allow for recovery. Helicopters may be used in roundups or other capture operations subject to the following humane procedures:

(1) Helicopters shall be used in such a manner that bands or herds will tend to remain together.

(2) The rate of movement shall not exceed limitations set by the authorized officer who shall consider terrain, weather, distance to be traveled, and condition of animals.

(3) The helicopter shall be used to enable the authorized officer to look for the presence of dangerous areas and move the animals away from hazards during the capture operation.

(4) During capture operations, animals shall be moved in such a way as to prevent unnecessary stress or injury.

(b) Motor vehicles may be used for the purposes of transporting captured animals, subject to the following humane procedures:

(1) All such transportation shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of horses and burros.

(2) Vehicles shall be in good repair, of adequate rated capacity, and carefully operated so as to insure that captured animals are transported without undue risk of injury.

(3) Vehicles shall be inspected and approved by an authorized officer prior to use.

(4) Where necessary and practical, animals shall be sorted as to age, size, temperament, sex, and condition when transporting them so as to minimize, to the extent possible, injury due to fighting and trampling.

(5) The authorized officer shall consider the condition of the animals, weather conditions, type of vehicles, and distance to be transported when planning for the movement of captured animals.

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