

INVESTIGATION REPORT  
INTO THE  
DEATHS OF WILD HORSES  
IN THE  
CLAN ALPINE HERD MANAGEMENT AREA

**INTRODUCTION**

The purpose of this report is to present findings and conclusions regarding investigations into the cause of death of at least 46 wild horses in the North end of the Clan Alpine Herd Management Area (HMA) of the Carson City District. The death a portion of these wild horses was discovered initially on 17 September 1987. Further field review revealed additional dead horses and the full field investigation into the cause of death was concluded on 30 Oct. 1987. Members of the investigation team included the following:

Andy Anderson, Carson City District Office  
Len Sims, Nevada State Office  
Milt Frei, Nevada State Office  
Jerry Peck, Carson-Tahoe Veterinary Hospital  
Tom Eagle, University of Minnesota  
Tim Reuwsaat, Carson City District Office

**BACKGROUND INFORMATION**

In Fiscal Year 1985, as a part of the Appropriation Act for the Bureau of Land Management, Congress directed the BLM to expend one million dollars in the research of wild horses on public lands. Pursuant to that Congressional direction, the BLM, in cooperation with the National Academy of Sciences, contracted with the University of Minnesota to undertake a scientific investigation into the area of fertility control in wild horse populations.

As a part of this study, BLM representatives from the Washington Office, Nevada State Office and several Nevada District Offices met with the University of Minnesota research personnel on numerous occasions beginning in the Spring of 1986 to select wild horse herds upon which to conduct the research and to agree upon other terms and conditions of the research. Some of the criteria and conditions which were understood, included the following:

1. The COR for the research contract would be located in the Washington Office, Division of Wild Horses and Burros of BLM and a project inspector at the state or district level would not be assigned.
2. In order to support the contract, BLM would make wild horse herds available for conducting the research and would not conduct any wild horse removals in those areas for three years. The areas selected were as follows: Flannigan Herd Management Area, Nevada, Wassuk Herd Management Area, Nevada, Sand Spring Herd Management Area, Nevada, Clan Alpine Herd Management Area, Nevada and Beatys Butte Herd Management Area, Oregon. (Note.. the Sand Spring HMA was subsequently rejected because, based upon BLM data, it was concluded by the researchers that the Clan Alpine HMA contained sufficient wild horses to be used as a control area as well as an actual fertility study area.

3. The University of Minnesota would work closely with BLM and advise them whenever horses were to be captured for research purposes
4. No capture plan or environmental assessment was prepared.

On-----a post gather census was conducted by BLM in the Clan Alpine HMA and-----wild horses were counted in the -----portion of the HMA. In mid August, the University of Minnesota contacted the Carson City BLM office and told them that the University intended to capture and attach radio telemetry devices to wild horses in the Clan Alpine HMA, beginning on 24 Aug. On 21 Aug. the Carson City BLM conducted a meeting with representatives from the University of Minnesota to inform them that a district representative would be present at the capture site at all times and to identify any restrictions which would be placed upon the research/capture effort. The University of Minnesota personnel were informed that any wild horses captured by them would not be run any further than 5 miles, all wild horses would be herded by the helicopter in a manner that bands would remain together and foals would remain with their mothers.

To complete the experiment concerning wild horse fertility control in the Clan Alpine Herd Management Area, 150 mares between 3 and 12 years old had to be implanted with silicone capsules. Of these 150 mares, 100 were to receive capsules impregnated with hormones (estrogen or progesterone) and the remaining 50 received plain (control) silicone capsules.

Capture and treatments began 24 August 1987 and continued through 3 September 1987. During that period 493 horses were captured and handled (205 males, 288 females). Of these horses, 301 were marked with numbered collars, 149 of which were equipped with radio transmitters and were attached to the implanted mares. The other 152 collars were attached to males and females too old for inclusion among experimental animals. One hundred ninety-two horses were not collared because they were less than 3 years old and considered too young to be fitted with permanent collars.

The following table depicts a summary of the University of Minnesota's wild horse captures and trap locations in the Clan Alpine study area:

| LOCATION         | START DATE | END DATE | NO. ANIMALS CAPTURED | RATE        |
|------------------|------------|----------|----------------------|-------------|
| Shoshone Meadows | 8/24/87    | 8/26/87  | 165                  | 55/DAY      |
| War Canyon       | 8/28/87    | 8/30/87  | 125                  | 41/DAY      |
| Horse Creek      | 8/31/87    | 9/1/87   | 70                   | 70/DAY      |
| Shoshone Meadows | 9/2/87     | 9/3/87   | 133                  | 86 & 47/DAY |

During the afternoon of 31 August 1987, after spending the morning hours moving the trap to Horse Creek, 70 horses were caught in the Clan Alpine HMA and processed. Approximately one half of these were caught on 31 Aug. and one half were caught on 1 Sept. At that time the gathering sub-contractor stated he was having difficulty locating unmarked horses. According to the subcontractor, some horses were present but were widely scattered and ran immediately when the helicopter was in the general area. Neither the BLM nor the University of Minnesota personnel were able to verify these statements because an observation helicopter to monitor the gathering effort could only be obtained for a half day of use on 29 Aug.

On 1 September the representative from BLM drove to the Hole-in-the-Wall spring, north of the boundary fence between the Augusta and Clan Alpine HMA's. Several bands of horses were seen watering, and 3-5 collared horses were present. These marked horses could have come only from south of the fence in the Clan Alpine HMA, having been marked during the first 3 days of the capture

effort. The horses at the spring were in very poor condition and flow from the spring was low.

Upon inspection of the fence separating the two allotments, several large (20-40 foot) gaps were found. There was a horse trail going through one of the gaps to a spring on the south side of the fence. The trails to the spring were well travelled from north to south of the fence. Similar trails occurred in two other locations indicating regular movement of horses between the two HMA's.

After discussing the lack of available horses in the Clan Alpines and the evidence suggesting regular movement between the two HMA's, BLM and University of Minnesota personnel decided the best alternative would be to move back to the north end of the Clan Alpine HMA and bring horses from the Augusta HMA through the gaps in the fence to the formerly used trap site in Shoshone Meadow. It appeared to those individuals that such a decision would have limited affect on either the welfare of the horses, which appeared to cross the fence regularly, or on the study being conducted by the University of Minnesota. Accordingly, the trap was moved back to the Shoshone Meadows location during the afternoon of 1 Sept.

On 2 and 3 September 1987, a total of 133 horses were captured from the Augusta Mountains HMA and brought through an opening in the fence separating that HMA from the Clan Alpine HMA, to the trap located in the northern part of the Clan Alpine HMA (86 on 2 Sep. and 47 on 3 Sep.) to complete treatment of mares for fertility control. All of the horses were taken from the area between Hole-in-the-Wall spring and the fence between the two HMA's (see map). Thus, the maximum distance horses were moved was approximately 12 miles to the trap site. The path to the trap site was relatively flat with one ridge, approximately 500 feet high, between the horses original position and the trap (Map 1). Air temperatures were in the 90 plus degree range which was unusually warm for that particular time of year.

Of the 133 horses captured, 75 were tagged with numbered collars. Of the 75 tagged animals, silicone rubber capsules were implanted into 42 mares between 3 and 12 years old, and these 42 equipped with radio collars. The additional 33 marked horses were males or females too old to include in the fertility experiment. The remaining 58 animals were not marked.

Eighty-one of the 86 horses captured on 2 Sept. were released together at approximately 7:30 that evening following appropriate experimental treatments. These animals were provided free access to water. The 5 horses retained (3 young females and 2 young males) overnight in the corral were provided hay and water. These 5 horses were held over night because there was not enough time remaining in the day to process them with the others and were released together on the morning of 3 Sept. after handling. The 47 horses captured on 3 Sept. were kept together until treatments were complete and all could be released at once on the same day.

#### DISCOVERY

On 17 September 1987, during a routine aerial census of the Augusta Mountain Herd Management Area (which includes the Hole-in-the-Wall allotment north of the Clan Alpine Herd Management Area), three dead horses were sighted along the fence near the cattleguard in T.23N, R.39E, Sec.13. Later that afternoon, an additional five carcasses were sighted from the helicopter at T.23N, R.38E, Sec. 13. Cursory examinations of the carcasses, which were bloated, revealed no direct evidence of the cause of death, such as bullet wounds. However, the

aggregation of the carasses and their proximity to the fence, suggested a possibility the animals were shot.

On 18 September the Lahontan Resource Area Manager was briefed on the discovery of the dead animals. Also, the University of Minnesota was notified and a message was left on the Nevada State Office law enforcement staff's telephone recorder that a suspected shooting of wild horses had been located in the Clan Alpine HMA.

On 25 Sept. the NSO law enforcement staff began investigating the possibility of violations of the wild horse and burro act. On 26 Sept. they visited the Clan Alpine area in an attempt to locate witnesses or evidence and on 2 Oct. they checked the carcasses for bullet wounds. It appeared from that investigation that one animal might have had a wound about mid-section on the left side, but no bullets were recovered. All carcasses were badly decomposed.

On 8 October research personnel from the University of Minnesota drove to the research area to inspect the previously located horse carcasses. During that visit, 5 additional carcasses were discovered while walking the fenceline. These animals were scattered westerly along the fenceline within 3 miles of the cattleguard located in Section 12 T.23 N. R. 39 E. Each animal showed no obvious sign of cause of death, but like the 8 carcasses found earlier, were grouped together. Marker collars on several of the dead horses identified them as part of the University's research project on fertility control in wild horses. All of the marked horses had been captured on 2 or 3 September 1987 as part of groups brought across the fence separating the Augusta Mountain and Clan Alpine HMA's. On ----- Oct. 1987, the University of Minnesota notified the Carson City BLM Office of this discovery.

On 13 Oct. the Carson City District notified NSO law enforcement that the University of Minnesota had visited the area and located 5 more dead horses. These carcasses were located approximately half way between the two groups of carcasses discovered on 17 Sept. At that same time, law enforcement personnel were informed that on 3 Sept. a yearling colt was captured which was dragging approximately 10 feet of rope and another foal was captured the same day which had a fresh (unrecorded) brand estimated to be approximately 2 weeks old. On 18 Oct. the NSO law enforcement staff checked the area with a metal detector in an attempt to locate bullets in the carcasses but no evidence of shooting could be found.

Following these discoveries, University researchers chartered a helicopter on 19 October to locate and assess the status of all horses radio-tagged on 2 and 3 Sep. This search revealed additional dead horses and brought the total number of deaths recorded to 40. Included in these were two radio-tagged mares located by telemetry approximately one-half mile south of the trap site. The University of Minnesota notified Tim Reuwsaat, Wild Horse Specialist, Carson City District Office on or about 21 Oct. 1987.

On 24 Oct. law enforcement personnel contacted ranchers in the Dixie Valley area but no information of value to the investigation was obtained. On 27 Oct. arrangements were made for a veterinarian and personnel from the Carson City District Office to assist in the investigation as it now appeared that the horses did not die as a result of being shot.

#### FORMAL INVESTIGATION

On 28-30 October 1987 an investigation team composed of a veterinarian and BLM personnel from law enforcement and management divisions, searched the entire fence line between the two allotments and examined the carcasses located there. In addition, a thorough search of areas north and south of the fence was conducted. A total of 46 dead horses was located, all of which were proximate to the fence. The two mares located south of the trap site found by University

of Minnesota personnel through radio telemetry were the only horses that were not included in the search by the investigation team. Thus, a total of 48 dead horses was discovered.

Examination of carcasses by BLM's law enforcement agent on 30 Oct. produced no evidence of shooting. Thus, no criminal activity was indicated in the deaths of the wild horses.

The 48 dead horses included 28 collared and 20 unmarked horses. Age and sex of the unmarked horses were not determined. Among the 28 collared horses were 8 males and 20 females, 16 of which had been treated with implants and fitted with radio collars.

#### VETERINARIANS STATEMENT - CAUSE OF DEATH

The 46 dead horses were found along the south side of the fence line between the Clan Alpine and Hole-in-the-Wall management areas. When I first viewed the dead animals, they had been dead approximately 6-8 weeks and the carcasses were in advanced decomposition. Because of this condition, no laboratory tests (ie. tissue samples and blood samples) could be used. All the dead horses were found in lateral recumbency without any signs of struggle before death. They were found in a few groups of 2 or 3 or as single horses with the exception of one large group of 22 horses. No sex or age group seems to predominate. Many were collared in the study but about 40% were not marked.

Various causes of death (ie. gunshot, poisoning, or toxic plants) were ruled out by physical examination of the carcasses and by finding no other horses or any type of animal affected in the same area.

In my best professional opinion, the cause of death was dehydration coupled with exhaustion and hyperthermia. From the history of the capture and release of the horses, it seems likely that they tried at great effort to return to the north side of the fence. Even though they were given water at the trap site before being released, the intense physical effort of trying to return to their home range along with an already quite poor body condition, the high environmental temperature at the time, and the lack of water in the area of the fenceline, these horses became dehydrated to the point of exhaustion. The horses then collapsed or stayed with the collapsed horses until they too collapsed from the stress of dehydration and hyperthermia.

Dehydration is a very rapidly debilitating condition. Once this condition is present, reversal would require intravenous electrolyte solutions, rest, and shade to cool the animals. Therefore, even supplying water orally to these horses probably would not be able to correct the electrolyte imbalance already present.

signed: Gerald R. Peck, DVM

#### CONTRIBUTING ADMINISTRATIVE FACTORS

1. The overall administration of the research contract with the University of Minnesota was deficient in that no environmental assessment was prepared on the research effort. The development of such an analysis, if completed, would have resulted in the development of such things as gathering plans and individual

environmental assessments for each capture effort as well as for all other phases or specific aspects of the research contract.

2. No written documents (i.e. gather plan, E.A.) were developed specifically for or prior to the roundup. These documents would have defined the gathering area boundary, distance animals were to be run and other parameters under which the gather would be conducted.
3. No on site project inspector was officially appointed by the Authorized Officer (Washington Office), therefore prohibiting clear lines of communication and delegation of authority.
4. No written log was maintained to provide continuity when BLM on site personnel were changed.
5. Although sanctioned by a BLM employee, the University of Minnesota abrogated their contract agreement by going outside of the Clan Alpine HMA. This action was not consistent with earlier commitments or the standing policy in Nevada that horses will not be driven from one HMA to another. Because a gather was planned for FY88 in the Augusta Mt. HMA, it was specifically excluded from the research.
6. An observation helicopter to monitor operation of the capture helicopter, was not employed during the entire period of the capture effort.
7. No attempt to verify the subcontractors opinion that there were insufficient horses in the Clan Alpine HMA, specifically that portion in the vicinity of the Horse Creek trap site, was made. The number of horses captured per day at each trap site indicates that the Horse Creek trap site was the most successful location in terms of animals captured per day. In addition the Horse Creek area is rougher and has denser vegetation than portions of the Augusta Mountain HMA which was later selected. This suggests that the subcontractor was motivated by ease of capture rather than meeting the objectives of the research.
8. No attempt was made to locate horses in other portions of the Clan Alpine HMA.
9. Herding horses a distance of twelve miles was not consistent with earlier commitments. This is particularly significant in light of the high temperatures and known poor conditions of the horses.
10. There was a limited exchange of information between the parties involved in the entire research project.
11. There was no immediate follow up after handling the animals and disrupting their normal routines.
12. BLM accepted the contractors concerns regarding scarcity of wild horses by immediately looking for alternative areas without confirming actual conditions, without fully assessing conditions of alternative areas and without reviewing the terms of the research project. We lacked both the necessary information and the means to gather such information prior to deciding on alternative plans and perceived that we lacked the authority to delay the contract until solutions could be derived.

#### RECOMMENDATIONS

The following recommendations are presented with the intention of improving BLM's administration of the Wild Horse and Burro Act and to assure that similar occurrences do not materialize in the future:

1. In all instances, regardless of circumstances, BLM should assure that a wild horse or burro capture/removal plan and associated Environmental Assessment, are prepared prior to the capture of wild horses and burros. For the past six or seven years it has been Nevada BLM policy that wild horse and burro removal plans contain maps of the capture area and that capture efforts do not extend beyond those capture area boundaries regardless of any unanticipated circumstances. This policy should be put in written form and include all captures, regardless of purpose.

2. Whenever contracts are awarded which in any way affect the welfare of one or more wild horses or burros, BLM should designate an on site project inspector who has clear lines of authority and responsibility as well as the ability to communicate on a moments notice with management and the Contracting Officer, to assure that any contractual problems which may affect the animals or their habitat can be resolved with minimal delay. In the event that such contracts are administered out of the Washington Office, a local project inspector from the district having jurisdiction must be appointed.
3. Whenever helicopters are utilized to physically move horses and burros for any purpose, and a BLM employee is not present in the aircraft, it should be Nevada BLM policy that direct visual monitoring of the operation of that aircraft be assured. While it has been the policy in Nevada since August of 1985, that such monitoring be provided for Nevada BLM wild horse and burro gathers. Although an observation helicopter was present for one half day, gathering operations occurred on five separate days under critical environmental and animal conditions. Observation helicopters were not required for this research project but it is now evident that a research gather is no different than a removal gather. In both cases, a subcontractor is herding horses without professional supervision unless observed.
4. Whenever the capture of wild horses and burros is being conducted by persons other than actual BLM employees (e.g. Contractors, Researchers etc.), Nevada BLM must remain responsible for maintaining and protecting the health and welfare of the animals.
5. Nevada BLM should adopt a policy which details how communications between those involved in the capture of the animals should be conducted. This policy will be augmented by the appointment of project inspectors as discussed in Recommendation No. 2 above. However, it is necessary that additional levels of communication be provided. Specifically, this policy should address communication between project inspectors and management when contracting problems involve conditions beyond the project inspectors authority and communication among all BLM district office staff regarding general policy affecting the safety and welfare of wild horses and burros under BLM protection.
6. Whenever wild horses and burros are captured and released upon the public lands for any purpose, Nevada BLM should adopt a policy which provides for follow up of the effect of the release on the animals. For example, a previous release of wild horses into an area they were not accustomed to in the Caliente area was successful because prior to release of the animals, BLM accustomed the animals to the area by holding them in pens at a water source they would be using in the future as part of their habitat. When released, these animals adapted quite adequately. This example, when compared to the Clan Alpine

EXPERIENCE, POINTS OUT THE FACT THAT  
WHEN ANIMALS ARE NOT FAMILIAR  
WITH CRITICAL COMPONENTS OF THEIR  
HABITAT, DISASTROUS RESULTS CAN  
OCCUR