DRY LAKE HMA postponed 6-3-92

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Ely District Office
HC 33 Box 33500
Ely, Nevada 89301-9408

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

NV-040 (4700)

JUN 0 3 1992

Commission for the Preservation
of Wild Horses and Burros
Cathy Barcomb, Executive Director.
Stewart Facility, Capitol Complex
Carson City, Nevada 89710

Dear Ms. Barcomb:

In reply to your call on May 29, 1992, enclosed please find an updated copy of the seasonal movement study proposal for the Dry Lake Herd Management Area.

As we discussed, BLM funding is available for the Antelope HMA seasonal flights. The Dry Lake HMA is the next highest priority area for collecting seasonal movement data so the proposal reflects costs for that area.

Your continued interest in the wild horse program is appreciated and any funding would be helpful. The proposal is written for a best case scenario of four censuses per year (funding requested for three). If the Commission is able to contribute funds for one or more censuses, future management will be enhanced.

Thank-you for including this study in your consideration for funding. If you have questions or comments please contact Sheree Kahle, Schell Resource Area Wild Horse Specialist, at (702) 289-4865.

Sincerely,

Gerald M. Smith

Gerald M. Smith, Manager
Schell Resource Area

WILD HORSE SEASONAL MOVEMENT

AND HABITAT USE

STUDY PROPOSAL

Prepared by Sheree L. Kahle
Wild Horse Specialist

Bureau of Land Management
Ely District
Schell Resource Area

INTRODUCTION

In 1971 the Bureau of Land Management was mandated by the Wild Free-Roaming Horse and Burro Act (P.L. 92-195) to manage wild horses and burros in a manner which preserves and maintains a thriving natural ecological balance and multiple use relationship on public lands.

Wild horse management in the State of Nevada is complicated by a need for more in depth information on seasonal movement patterns, habitat preference and actual habitat use. Without a clear knowledge of where horses, livestock and wildlife are located during different times of the year, it is not feasible to attribute the range degradation which has been documented through monitoring and evaluation to any one user.

Any given area of land has a certain ecological potential to support herbivores in an equilibrium state. That potential is determined by the site's climate, topography, soils, water, vegetation characteristics, as well as the nature of the herbivores themselves. Policy decisions based on biological, sociopolitical, and economical considerations must allocate some portion of that ecological potential to wild horses, livestock and wildlife. Western rangelands cannot support large numbers of animals due to relatively low production and carrying capacity. Understanding habitat preferences, actual habitat use, and seasonal movement patterns is important in making forage allocation decisions in regard to wild horses and all other users on public land.

PROBLEM STATEMENT

Competition for forage occurs when two species use the same forage species and reduce it to the point where numbers of all grazing animals must be reduced in order to maintain a thriving natural ecological balance. It is possible that two species of herbivore:

1) May choose and occupy different habitats and thus not compete.

2) May occur in the same habitat but eat different forage species and thus not compete.

3) May occur in the same habitat, eat similar forage species but segregate through behavioral interactions, thus only competing if forage is limited.

4) May occur in the same habitat, eat similar forage species, do not segregate through behavioral interactions and compete when forage is limited.

Monitoring data and analysis show heavy to severe utilization in some areas in which wild horses and/or livestock are known to occur. Wild horses and cattle have a high percentage of dietary overlap which suggests that competition is occurring as in examples 3 or 4 above. Wild horses are known to avoid using areas where livestock are currently grazing. In order to determine which species is causing resource damage and the extent of the damage caused by each species, it is critical to know where each species is making utilization throughout the year. Cattle use is regulated and numbers are known for each use area and season. The free-roaming nature of the wild horses makes it very difficult to assess or control actual use areas and seasons of use. There have been several censuses conducted on the different Herd Management Areas (HMAs) which give an indication of the number of horses within an HMA but in depth data on seasonal use patterns of the animals is lacking.

Currently, horses are censused about once every year or once every other year. A full census should be conducted once during each season (four times per year). This would indicate how many animals were using the HMA as well as where the use was being made in each season. Wild horses are thought to have fairly regular winter and summer use areas. However, migration routes to and from these areas are not well understood. During the spring and to a lesser degree the fall, horses seem to scatter widely. These migrations may be not only to move to new seasonal use areas for climatic reasons but horses may be taking advantage of the new growth and a relative abundance of water. Intense grazing during the spring growing season has the greatest adverse affect on the vegetation resources. Livestock are managed so that utilization of native range is typically reduced during the critical growing stage. Horses are not controllable in the manner of livestock but it is possible they are having a significant impact on range resources. Knowing where the horses are making heavy use in the spring will be useful in determining the impact horses are having on the environment.

A full census to estimate total population numbers every season would also provide invaluable demographic data on wild horses (i.e. foal mortality rates, survival rates, band sizes etc.).

The Ely District proposes to conduct a study of the seasonal movements and habitat use by wild horses in the Dry Lake HMA in the Schell Resource Area. The Dry Lake HMA has extensive resource damage due to a combination of wild horse and livestock use. A better understanding of actual use areas and spatial overlap of the horses and livestock would facilitate future management efforts.

Current BLM funding will provide for one census for the Dry Lake HMA each year. Due to a lack of further BLM funding, this proposal will be submitted to various wild horse interest groups

in the hope that some of them will be willing to help fund this study.

METHODS

Following seasonal movements of wild populations is time and resource demanding.

It has been determined that conducting an aerial census on a seasonal basis will provide the best data on seasonal movements and use areas. Four flights would be conducted per year with the approximate dates as follows:

September 1
December 1
March 1
June 1

These dates have been selected to minimize stress and disturbance to the wild horses during the peak foaling season: March - June.

To understand seasonal movements throughout the year, animals must be observed during each season. During the winter months in the Schell Resource Area, the only way to access many areas is by air. Recently, wild horse specialists have been assessing the use of fixed wing aircraft for conducting censuses. Helicopter census is expensive but is believed to be the best alternative for tracking wild horses in the Dry Lake HMA. The terrain is very rugged and there are areas of thick pinyon and juniper trees which preclude the use of fixed wing aircraft.

Accuracy of the BLM censuses has often been questioned. However, in March 1990 a Nevada Dept. of Wildlife Biologist flew a census with a BLM Wild Horse Specialist and determined that census techniques used by the Bureau were approximately 80% accurate and followed methodology that would be used by N.D.O.W.. Censuses conducted every season would be useful in assessing accuracy of the counts. If numbers varied widely from one census to the next, it might suggest either that the census techniques or timing of censuses are inadequate. In the past, herd areas have sometimes been censused at different times of the year which can lead to wide variations in numbers due to seasonal movements. If, on the other hand, the number of horses counted are fairly similar from count to count, it can be assumed that census methods are consistent and therefore are adequate. Frequent counts within the same herd area would give accurate estimates of population increases or decreases.

Dry Lake HMA in the Schell Resource Area is adjacent to a herd area managed by the Las Vegas District. Horse movement between the districts is known to occur but extent of movement is

unknown. Such information is critical in several respects. If horses are censused prior to or after such a movement, numbers may be under- or over-estimates of the actual number present. If large numbers of horses are moving back and forth between districts, census data taken once every few years may be fairly inaccurate. Consultation and coordination between the adjacent districts is occurring and will continue. Ideally, the Las Vegas District would also be censusing seasonally at the same times as the Schell Area censuses. This would allow us to better detect any movement between districts by showing a concurrent increase in one herd area and a decrease in the adjacent area. However, without additional funding this would not be possible.

A study involving four flights annually would be necessary for a period of 2-3 years in order to get a fairly accurate picture of seasonal movements. After the initial 2-3 years, censuses could be conducted at the normal interval; every year or every other year.

OBJECTIVES

The objective of this study is to learn more about seasonal movement patterns and use areas of the wild horse in the Dry Lake HMA. This knowledge will allow a more accurate and fair allocation of forage for wild horses based on actual needs in each use area. The data collected will be more specific in terms of segregating spatial overlap between wild horses and livestock and will enable the BLM to more accurately determine which species is causing resource damage in each use area.

EVALUATION/PROGRESS REPORTS

The Ely District will submit brief reports to all project sponsors after each census and will conclude the study with a more in depth report including potential conclusions and uses for the data collected.

PROJECT MANAGER - Sheree Kahle. Schell Resource Area Wild Horse Specialist (2½ years).

B.S. in Biology, Eastern Oregon State College, 1981.

M.S. in Wildlife Management, Humboldt State University, 1989.

TECHNICAL ASSISTANCE - Robert E. Brown. Ely District Wild Horse Specialist (past 7½ years).

Range Conservationist with BLM - 8 years.

B.S. in Zoology, University of Arizona, 1968.

Post graduate work in Range Management 1975-1976

PROPOSED ANNUAL BUDGET FOR SEASONAL CENSUS
STUDY OF THE DRY LAKE HMA

BLM currently has a 1 year contract (expires 3/31/1993 with an option to renew) with High Desert Helicopters - owner: Clifford J. Heaverne,
Fallon, NV.

Contract rates:

Helicopter (Bell 47/G3B1 Soloy Conversion) + pilot.	$325.00/hour
Service Truck Mileage.	$ 0.60/mile
Subsistence Allowance	$ 66.00/day
Dept. of Interior. Office of Aircraft Services (O.A.S.) administrative overhead expense	8%

Specific Costs per Census:

Helicopter and pilot:	
Ferry time from Fallon to Ely and return:	
7.2 hours flight time X $325/hr	$2340.00
Census flight time:	
approximately 10 hours X $325/hr	$3250.00
Service truck mileage:	
Ferry from Fallon to Ely and return:	
536 miles X $.60	$322.00
Servicing during actual census:	
approximately 300 miles X $.60	$180.00
Subsistence Allowance:	
4 days X 2 people @$66/day/person	$528.00
Total for each census . .	$6620.00
Three censuses per year:	
3 x $6620	$19,860.00
O.A.S. administrative overhead:	
8% X $19,860.00	$1589.00
Total for one year of study . .	$21449.00

The BLM will provide all personnel necessary to complete this study.