6/14/88

IN REPLY REFER TO:



# United States Department of the Interior

4700 (NV-033)

BUREAU OF LAND MANAGEMENT CARSON CITY DISTRICT OFFICE 1535 Hot Springs Rd., Ste. 300 Carson City, Nevada 89701

JUN 14 1988

Dear Interested Party:

Enclosed is the Draft Lahontan Wild Horse Removal Plan and Environmental Assessment (EA) for your review and comment.

Please submit your comments to this office by close of business July 20, 1988, to be considered in the final plan and EA.

Sincerely yours,

James W. Elliott District Manager

Enclosure:
As Stated Above

#### LAHONTAN WILD HORSE REMOVAL PLAN

## I. Purpose

The purpose of this plan is to discuss the implementation of the proposed action in the accompanying environmental assessment. The proposed action is to remove excess numbers of wild horses with the use of a helicopter, to bring the population of wild horses in the Lahontan, Horse Mountain, Dogskin Mountain and Granite Peak Herd Management Areas (HMAs) down to the appropriate management level identified in the Lahontan Resource Management Plan. The population in the Augusta Mountain HMA will be adjusted to correspond with the analysis of monitoring data.

## II. Areas of Concern

The areas of concern are the Augusta Mountain, Lahontan, Horse Mountain, Dogskin Mountain and Granite Peak Herd Management Areas. The locations of these areas are shown on the attached map 1.

Augusta Mountain HMA lies within three Bureau of Land Management Districts; Carson City, Battle Mountain and Winnemucca Districts with the Carson City District assigned responsibility for the management for the entire HMA.

## III. Numbers of Wild Horses

The most recent census conducted in the Augusta Mountain HMA in April 1988, resulted in an actual count of 980 head. The planned removal is 347 head (see analysis in the accompanying Environmental Assessment).

The most recent census conducted in the Lahontan HMA in August 1987, resulted in 140 animals being counted. The Lahontan Resource Management Plan set the appropriate management level at 42 head. This results in an excess population of 98 head. Many of the animals in this population are pinto horses, therefore all animals are to be removed and 42 of the horses selected to be released back into the HMA preserving the pinto characteristic. The release will occur within the HMA and the animals will be directed towards water (Lahontan Reservoir) and checked within 72 hours after release.

Horse Mountain was censused in August of 1987 resulting in an actual count of 115 head. The Lahontan Resource Management Plan (RMP) set the appropriate management level at 63, therefore 52 excess animals need to be removed to achieve the appropriate management level.

Granite Peak HMA was censused in November of 1987 with 51 head being counted in the HMA and Bedell Flat expansion area. The Dogskin Mountain HMA was censused in May 1988 with 64 being counted. The Lahontan RMP set appropriate management levels of 19 for the Dogskin HMA and 17 for the Granite Peak HMA, therefore, there exists excess populations of 45 head and 34 head respectively.

## IV. Methods for Removal and Safety

The methods employed during this capture operation will be herding horses with a helicopter to a trap built with portable panels. The Bureau of Land Management will contract with a private party for this operation. Two or more Bureau employees will be supervising the contractor at all times during the gathering operation. The following stipulations and procedures will be followed during the contract to ensure the proper areas are captured and to ensure the welfare, safety and humane treatment of the wild horses.

# A. Roundup Procedures within Contract Area:

1. Capture will be completed by area in the following order:

No. 1 - Augusta Mountains

No. 2 - Lahontan

No. 3 - Horse Mountain

No. 4 - Dogskin Mountains

No. 5 - Granite Peak

Changes in order to priorities 2 through 5 may be authorized by the COR.

2. The Contracting Officer's Representative (COR) will determine specific roundup areas and numbers of animals within general contract areas as animal concentration, terrain, physical barriers and weather conditions dictate. Upon determination of the specific roundup areas, the COR will select the general location of trap sites in which to herd the animals, also dependent on animal concentration, terrain, physical barriers and weather conditions.

# B. Motorized Equipment

1. All motorized equipment employed in the transportation of captured animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals.

- Vehicles shall be in good repair, of adequate rated capacity, and operated so as to insure that captured animals are transported without undue risk or injury.
- 3. Only stocktrailers shall be allowed for transporting animals from traps to temporary holding facilities. Only Bobtail trucks, stocktrailers, or single deck trucks shall be used to haul animals from temporary holding facilities to final destination. Sides or stockracks of transporting vehicles shall be a minimum height of 6 feet 6 inches from vehicle floor. Single deck trucks with trailers 40 feet or longer shall have two partition gates to separate animals. Trailers less than 40 feet shall have at least one partition gate to separate the animals. Each partition shall be a minimum of six feet high and shall have a minimum 5 foot wide swinging gate. The use of double deck trailers is unacceptable and shall not be allowed.
- 4. All vehicles used to transport animals to final destination shall be equipped with at least one door at the rear end of the vehicle which is capable of sliding either horizontally or vertically.
- 5. Floors of vehicles and loading chute shall be covered and maintained with a non-skid surface such as sand, mineral soil or wood shavings, to prevent the animals from slipping.
  - This will be confirmed by a BLM employee prior to loading every load.
- 6. Animals to be loaded and transported in any vehicle shall be as directed by the COR and may include limitations on numbers according to age, size, sex, temperament and animal condition. A minimum of 1.4 linear foot per adult animal and .75 linear foot per foal shall be allowed per standard eight foot wide stock trailer/truck.

The BLM employee supervising the loading of the wild horses to be transported from the trap to the temporary holding corral will require separation of small foals and/or weak horses from the rest should he/she feel that they may be injured

during the trip. He/she will consider the distance and condition of the road and animals in making this determination. Horses shipped from the temporary holding corral to the BLM facility will normally be separated by studs, mares and foals (including small yearlings). However, if the numbers of these classes of animals are too few in one compartment and too many in another, animals may be shifted between compartments to properly distribute the animals in the trailer. This may include placing a younger, lighter stud with the mares or a weak mare with the foals. Further separation may be required should condition of the animals warrant.

The BLM employee supervising the loading will exercise his authority to off-load animals should he feel there are too many horses on the trailer.

7. The COR shall consider the condition of the animals, weather conditions, type of vehicles, distance to be transported, or other factors when planning for the movement of captured animals. The COR shall provide for any brand and/or inspection services required for the captured animals.

It is currently planned to ship all horses to the Palomino Valley facility. Communication lines have been established with the Palomino Valley personnel involved in off-loading the horses, to receive feedback on how the horses arrived. Should problems arise, shipping methods and/or separation of the horses will be changed in an attempt to alleviate the problems.

8. If the COR determines that dust conditions are such that the animals could be endangered during transportation, the contractor will be instructed to adjust speed. The maximum distance over which animals may have to be transported on dirt road is approximately 40 miles per load.

Periodic checks by BLM employees will be made as the horses are transported along dirt roads. If speed restrictions are placed in effect, then BLM employees will, at times, follow and/or time trips to ensure compliance.

## C. Trapping and Care

1. All capture attempts of wild horses shall be accomplished by the utilization of a helicopter. A minimum of one saddle horse shall be immediately available at the trap site to accomplish roping if necessary. Under no circumstances shall animals be tied down for more than one hour.

Roping will be allowed only to capture an orphaned foal or a suspected wet mare except in the Lahontan HMA where all animals attempting to escape will be roped in order to accomplish the objective of enhancing the pinto characteristic.

The helicopter shall be used in such a manner that bands or herds will remain together. Foals shall not be left behind.

The Carson City District will use an observation helicopter as the primary means in which to supervise the use of the project helicopter. In the absence of an observation helicopter, the project helicopter or saddle horses may be used to place a BLM observer on a point overlooking the area of the helicopter herding the wild horses.

3. The rate of movement and distance the animals travel shall not exceed limitations set by the COR who will consider terrain, physical barriers, weather, condition of the animals and other factors.

BLM will not allow horses to be herded more than 10 miles nor faster than 20 miles per hour. The COR may determine the distance and rate needs to be reduced if the route to the trap site is so steep and/or rocky that wild horses are being stressed or risk injury or the condition of the horses require shorter distance and slower rates.

Temperature limitations are 10 degrees F. as a minimum and 95 degrees F. as a maximum.

Special attention will be given to avoiding physical hazards such as fences. Maps 2, 3 and 4 show locations of fences and any other potential hazards.

- 4. It is estimated that nine trap locations will be required to accomplish the work. All trap locations and holding facilities must be approved by the COR prior to construction. The contractor may also be required to change or move trap locations as determined by the COR. All traps and holding facilities not located on public land must have prior written approval of the landowner.
- 5. All traps, wings and holding facilities shall be constructed, maintained and operated to handle the animals in a safe and humane manner and be in accordance with the following:
  - a. Traps and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high, the bottom rail of which shall not be more than 12 inches from the ground level. All traps and holding facilities shall be oval or round in design.
  - All loading chute sides shall be fully covered with plywood or like material.
     The loading chute shall also be a minimum of 6 feet high.
  - c. All runways shall be a minimum of 20 feet long and a minimum of 6 feet high and shall be covered with plywood or like material a minimum of 1 foot to 5 feet above ground level.
  - d. Wings shall not be constructed out of barbed-wire or other materials injurious to animals and must be approved by the COR.
  - e. All crowding pens including the gates leading to the runways shall be covered with material which prevents the animals from seeing out (plywood, burlap, etc.) and shall be covered a minimum of 1 foot

to 5 feet above ground level. Eight linear feet of this material shall be capable of being removed or let down to provide a viewing window.

- f. All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking gates.
- 6. No fence modification will be made without authorization from the COR. The contractor shall be responsible for restoration of any fence modification which he has made.

If the route the contractor wishes to herd horses passes through a fence, the contractor will be required to roll up the fencing material and pull up the posts to provide at least one-eighth mile of gap. The standing fence on each side of the gap will be well-flagged for a distance of 300 yards from the gap on each side.

- 7. When dust conditions occur within or adjacent to the trap or holding facility, the contractor shall be required to wet down the ground with water.
- 8. Alternate pens, within the holding facility shall be furnished by the contractor to separate mare with small foals, sick and injured animals, and estray animals from the other horses. Animals shall be sorted as to age, number, size, temperament, sex, and condition when in the holding facility so as to minimize, to the extent possible, injury due to fighting and trampling.

As a minimum, studs will be separated from the mares and foals when the animals are held overnight.

9. Animals shall be transported to final destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the COR for unusual circumstances. Animals shall not be held in traps and/or temporary holding facilities on days when there is no work being conducted except as specified by the COR. The

contractor shall schedule shipments of animals to arrive at final destination between 6:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday.

- 10. The contractor shall provide animals held for 10 hours or more in the traps and/or holding facilities with a continuous supply of fresh clean water at a minimum of 10 gallons per animal per day. Animals held for 10 hours or more in the traps or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day.
- It is the responsibility of the contractor to provide security to prevent loss, injury or death of captured animals until delivery to final destination.
- 12. The contractor shall restrain sick or injured animals if treatment by the government is necessary. The COR will determine if injured animals must be destroyed and provide for destruction of such animals. The contractor may be required to dispose of the carcasses as directed by the COR.
- 13. When refueling, the helicopter shall remain a distance of at least 1,000 feet or more from animals, vehicles (other than fuel truck), and personnel not involved in refueling.

## V. Disposition of Removed Animals

The wild horses and burros will be sent to Palomino Valley Wild Horse and Burro Placement Center to be processed for adoption.

Impounded, privately-owned animals will be processed as outlined in the Bureau of Land Management, Nevada State Office Instruction Memoranda NV-84-116 and NV-85-416.

## VI. Responsibility

The Contracting Officer's Representative and Project Inspectors, all from the Carson City District, have the responsibility to ensure

the contractor's compliance with the contract stipulations. However, the Lahontan Area Manager and the Carson City District Manager are very involved with guidance and input into this removal plan and with contract monitoring. The health and welfare of the animals is the overriding concern by the District Manager, Area Manager, COR and PIs.

The COR and/or Project Inspector (PI) will constantly, through observation, evaluate the contractor's ability to perform the required work in accordance with the contract stipulations. Compliance with the contract stipulations will be through issuance of written instructions to the contractor, stop work orders and default procedures should the contractor not perform work according to the stipulations.

Prior to issuance of the "Notice to Proceed" to the contractor, the COR and PIs will inspect the equipment to be used during the contract, to insure the equipment meets or exceeds the standards contained in the contract stipulations.

Prior (less than 20 days) to the start of the contract and constantly during the course of the contract the COR and/or PIs will evaluate the conditions which may cause undue stress to the animals. The factors considered will include animal condition, prevailing temperatures, drought conditions, soil conditions, topography, animal distribution, distance animals travel to water, quantity of available water and road conditions animals are to be transported over. These factors will be evaluated to determine if additional constraints other than those already discussed above, need be initiated in order to safely capture and transport the animals, if a veterinarian should be present, or if the capture operations should be delayed. This is of special concern during this year of possible drought which may intensify the impact of removal operations on the animals and the roads.

# VII. Signatures

Prepared by:

Timothy B. Reuwsaat Wild Horse and Burro Specialist Carson City District

Concurred by:

Edward F. Spang

State Director, Nevada

Norman L Murray	6-14-88
Norman L. Murray Assistant District Manager, Resources	Date
James M. Phillips Area Manager Lahontan Resource Area	6-14-85 Date
James W. Elliott District Manager	6/14/88 Date
Approved by:	

Date

#### ENVIRONMENTAL ASSESSMENT

#### Lahontan Wild Horse Removal

## I. INTRODUCTION AND PURPOSE

The purpose of the proposal is to maintain or improve rangeland conditions through removal of excess wild horses in the Lahontan, Horse Mountain, Dogskin Mountain, Granite Peak and Augusta Mountain Herd Management Areas (HMAs). This proposal is in conformance with the Lahontan Resource Management Plan (RMP). The proposed action is to remove excess wild horses down to the identified Appropriate Management Levels for the Lahontan, Horse Mountain, Granite Peak, and Dogskin Mountain HMAs. The proposed action in the Augusta Mountain HMA involves increased removals in order to correct resource degradation identified from rangeland monitoring data in the southwest portion of the HMA. Therefore, the remainder of this document will be divided into two parts, the first for the Lahontan, Horse Mountain, Granite Peak, and Dogskin Mountain HMAs, the second for the Augusta Mountain HMA.

## II. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

A. The proposed action is to remove excess wild horses in the above mentioned Herd Management Areas through the use of a helicopter and other motorized equipment. The wild horses would be herded by a helicopter into traps constructed of portable steel panels. The Bureau of Land Management would contract with a private party for the removal operation. The contractor would be supervised at all times by at least two Bureau employees. The numbers of horses proposed for removal are:

Lahontan - All 140 animals are to be removed. Many of the animals in this population are pinto horses, therefore 42 of the horses will be selected from the 140 and released back into the HMA preserving the pinto characteristic. The release

will occur within the HMA and the animals will be directed towards water (Lahontan Reservoir) and checked within 72 hours after release.

Horse Mountain - Fifty-two excess wild horses will be removed from the HMA.

Granite Peak - Thirty-four excess wild horses will be removed from the HMA and surrounding expansion areas.

Dogskin Mountain - Forty-five excess wild horses will be removed from the HMA and surrounding expansion areas.

Augusta Mountain - Three hundred forty seven excess wild horses will be removed from the HMA.

- B. Alternative No. 1 is to conduct the removal operations through the use of water traps. Traps consisting of portable panels would be constructed around water sources and the horses caught when coming into water.
- C. Alternative No. 2 is to conduct the removal by herding the wild horses from horseback. Riders would herd horses into traps built on portable steel panels.
- D. The no action alternative is to not conduct the wild horse removals.

#### III. AFFECTED ENVIRONMENT

#### A. Wild Horses

The Lahontan Herd Management Area is located approximately 20 miles west of Fallon, Nevada. The most recent census conducted in the Lahontan HMA in August 1987, resulted in 140 animals being counted. The Lahontan Resource Management Plan set the appropriate management level at 42 head. This results in an excess population of 98 head. Many of the animals in this population are pinto horses.

Horse Mountain HMA is located approximately 25 miles south of Fallon, Nevada. Horse Mountain was censused in August of 1987 resulting in an actual count of 115 head. The Lahontan Resource Management Plan (RMP) set the appropriate management level at 63, therefore 52 excess animals need to be removed to achieve the appropriate management level.

Both Dogskin Mountain and Granite Peak HMAs are located approximately 25 miles north of Reno, Nevada. Granite Peak HMA was censused in November of 1987 with 51 head being counted in the HMA and Bedell Flat expansion area. The Dogskin Mountain HMA was censused in May 1988 with 64 being counted. The Lahontan RMP set appropriate management levels of 19 for the Dogskin HMA and 17 for the Granite Peak HMA, therefore, there exists excess populations of 45 head and 34 head respectively.

The Augusta Mountain Herd Management Area is located approximately 70 miles south of Winnemucca, Nevada. Augusta Mountain HMA lies within three Bureau of Land Management Districts; Carson City, Battle Mountain and Winnemucca Districts with the Carson City District assigned responsibility for the management for the entire HMA. The most recent census conducted in the Augusta Mountain HMA in April 1988, resulted in an actual count of 980 head.

All HMA locations are shown on the attached maps as well as the capture area boundaries.

# B. Vegetation

 $\underline{\text{Lahontan, Horse Mountain, Granite Peak and Dogskin Mountain}}$   $\underline{\text{HMAs}}$ 

Vegetation types vary by elevation and topography from pinyon-juniper at the higher elevations to sagebrush, shad-scale and greasewood at the lower elevations in the HMAs.

Vegetation is currently being adversely affected by wild horse use over appropriate management levels as analyzed within the Lahontan RMP.

#### Augusta Mountain HMA

Vegetation types vary by elevation and topography from pinyon-juniper at the higher elevations to sagebrush, shadscale and greasewood at the lower elevations in the HMA. Monitoring studies in the HMA indicate that excessive utilization is occurring in the southwest third of the HMA during the critical growth period of the forage plants. This is causing continued downward trend and allows no chance for the ecological condition to improve. A complete analysis is contained in Appendix A.

## C. Water

There are several flowing springs in Dogskin Mountain and Granite Peak HMAs.

Horse Mountain and Lahontan HMAs do not contain any known springs, however the Horse Mountain herd utilizes an irrigation ditch for water and the Lahontan herd relies on the Lahontan Reservoir.

Augusta Mountain HMA contains several flowing springs, however in the southwest third of the HMA there are only three springs, two, of which, are inside Wilderness Study Area boundaries.

#### D. Wilderness

There is one Wilderness Study Area within the Augusta Mountain HMA. Attached is a map which shows the delineation of this Wilderness Study Area. The temporary traps used to capture may be located at the edge of the WSA on or adjacent to an existing road. As a standard operating procedure, no holding corrals or motorized ground vehicles will be allowed within the boundary.

## E. Cultural Resources

Cultural resources exist within the gather area. Temporary trap sites or water barriers could impact these. As a standard operating procedure, all sites will receive a cultural clearance prior to construction.

## F. Threatened and Endangered Species

Only Augusta Mountain HMA, contains a known threatened and endangered plant species, Phacelia glaberrima.

## IV. ENVIRONMENTAL IMPACTS/MITIGATION MEASURES

#### A. Proposed Action

Unavoidable impacts in the form of injuries to the horses may occur as a result of the removal process. Death loss is not expected to exceed 2% of the horses captured at the trap

site. Potential injuries and fatalities can be mitigated through strict enforcement of contract specifications for safety and humane treatment of animals. BLM representatives would be monitoring the contractor's activities at all times during removal to ensure compliance with specifications and humane treatment of animals.

Some stress to the horses would be associated with the helicopter herding operations, however, after capture, the horses would become accustomed to domestication and would receive proper care and feed.

The pinto characteristic will be enhanced in the Lahontan herd by removal of all animals and release of selected animals with the pinto coloration.

Small localized areas within the vicinity of trap sites and holding facilities would receive trampling and the subsequent loss of vegetation. Overall, the vegetative resource would improve due to the reduction in grazing pressure. Forage availability should increase and utilization levels decrease. This would occur in both the short and long term. A more detailed analysis for the Augusta Mountain HMA is contained in appendix A.

No impacts would occur to cultural resources, as the trap sites would be cleared prior to construction.

Capture operations would not impact the threatened and endangered species in the Augusta Mountain HMA.

# B. Water Trapping

This method of capturing wild horses is the least stressful to the animals. However, once captured, the handling and transportation of the animals would be the same as the proposed action. As most injuries to wild horses occur during handling and transportation, the injury and fatality rate would remain approximately the same. Once prepared for adoption, the animals become accustomed to domestication and would receive proper care and feed.

Small localized areas within the vicinity of trap sites and holding facilities would receive trampling and subsequent loss of vegetation. Overall, the vegetation resource would improve due to the reduction in grazing pressure. Forage availability should increase and utilization levels decrease. This would occur in both the short and long term.

No impacts would occur to cultural resources, as the trap sites would be cleared prior to construction.

Capture operations would not impact the threatened and endangered species in the Augusta Mountain HMA.

Due to the time necessary for construction of complex water traps and the prolonged period it would take for the animals to become accustomed to using the traps, it would take more manpower to implement this alternative, therefore, would be significantly more expensive than the proposed action. In addition, the number of springs in the removal areas would make the water trapping method of capture unfeasible, due to the amount of fencing material required.

## C. Horseback Trapping

Using riders on horseback to herd horses to traps, results in less stress to the animals during capture than the proposed action. However, once captured, the handling and transportation of the animals would be the same as the proposed action. As most injuries to wild horses occur during handling and transportation, the injury and fatality rate would remain approximately the same. Once prepared for adoption, the animals become accustomed to domestication and would receive proper care and feed.

Some localized areas within the vicinity of trap sites and holding facilities would receive trampling and subsequent loss of vegetation. Overall, the vegetation resource would improve due to the reduction in grazing pressure. Forage availability should increase and utilization levels decrease. This impact would have both short and long term effects.

No impacts would occur to cultural resources as the trap sites would be cleared prior to construction.

Capture operations would not impact the threatened and endangered species in the Augusta Mountain HMA.

Bands of horses are not controlled effectively with horseback herding, therefore, many bands are spilled or individual horses separated from the band. This results in increased social structure disruption and/or orphaned foals, which requires attempts to capture these separated animals. The number of animals captured per day versus the proposed action is significantly fewer, therefore, is very time consuming resulting in very high capture costs.

This method of capture is very tiring for the saddle horses which results in injuries to both the saddle horses and personnel involved.

## D. No Action

The no action alternative would result in no wild horses being removed. The animals would not undergo stress, injuries, nor fatalities related to capture, handling and transportation. However, in the long term, the population would increase to a point where excessive utilization would eliminate nearly all the forage plant species. The animals would suffer stress searching for food and may be subject to starvation. Attainment of Land-Use-Planning objectives would not be met.

## V. Public Involvement

This Environmental Assessment will be distributed to interested parties for comments as outlined in Bureau of Land Management, Nevada State Office Instruction Memorandum No. NV-85-345, Change 2. Copies will also be sent to those who specifically make a request and others who may be effected by the proposed action.

#### APPENDIX A

#### Background

Objectives for the southwest third of the Augusta Mountain HMA as stated in the Lahontan RMP are:

- 1. Wild Horses Maintain adjudicated forage of 760 Animal Unit Months (AUMs) for 50 horses; provide habitat for 155 horses within the HMA (that portion within Carson City District).
- 2. Livestock Improve ecological condition on approximately 2000 acres of poor and fair condition range and provide for 2675 AUMs of forage for livestock.
- 3. Wildlife Provide 51 AUMs of deer forage to support reasonable numbers in habitat rated in good condition.

The most recent ecological condition rating for the Hole in-the-Wall allotment (which generally corresponds to the southwest third of the HMA) rated 41% in poor, 56% in fair and 3% in good condition classes.

The utilization of key grass species within the identified key areas taken in November shows that the percent utilization is near 55%, which is proper for yearlong use as recommended in the Nevada Rangeland Monitoring Handbook. This use is being made strictly by wild horses as livestock season of use is November 1 through March 31.

At the end of the grazing season on March 31, the past two years utilization of key species in the key areas averaged 70%, which is in excess of that considered proper in the Nevada Rangeland Monitoring Handbook. The total use at the end of the grazing season is made by both livestock and wild horses.

#### Analysis

Since the growing season (spring-summer) is the most critical to provide for the necessary physiological requirements of the key grass species, it is therefore most important to limit the degree of utilization during this period. This is necessary in order to maintain (emphasis added) the soil, forage plant vigor and large herbivore diet quality. For semi-desert grass and shrublands and sagebrush grasslands the recommended use of key species for moderate grazing is 30 to 40%. Ranges in good condition and/or grazed during the dormant season can withstand the higher utilization level, while those in poor condition or grazed during active growth should receive the lower utilization level. 1

Holechek, Jerry L. 1988. An Approach for setting the Stocking Rate. Rangelands. 10(1):10-14.

The current utilization does not allow for improvement in ecological condition. The excessive use is contributing to the apparent downward trend. Therefore to meet the management objectives of improving the ecological condition which, in turn, will provide the habitat and forage to support the numbers of animals identified, the following actions are necessary:

Short Term Management Actions

1. Reduce the degree of utilization on key forage species to a maximum of 25% during the spring-summer critical growing period. To accomplish this management action, the number of grazing animals needs to be reduced.

The amount of use occurring during the past two years during the first 7 months of the grazing season averages 2474 AUMs. This use contributed to a 55% utilization level within the identified key areas at the end of this period. As stated earlier, a 30% utilization level is desired for those rangelands in poor condition or grazed during active growth. This particular area has both - large percentages of poor and fair rated ecological condition and is grazed during active growth. Also, to provide for additional forage removal the remainder of the grazing year, it is necessary to limit utilization below the recommended 30% level. Therefore, a 25% utilization level will be used as the desired utilization level at the November 1 date to allow for upward trend and improvement to the ecological condition. Therefore:

if 2474 AUMs then (X) contributes 55% utilization desired util. 25%.

Where: X = 1125 AUMs desired use up to November 1, which, for seven months, equates to 160 head of wild horses.

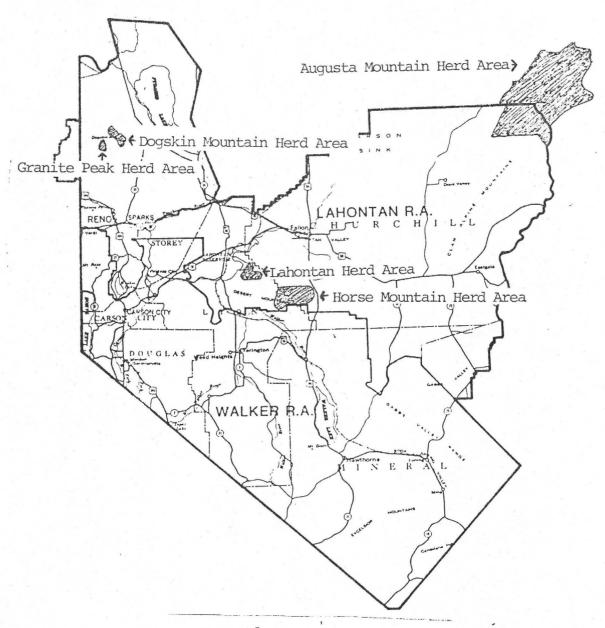
The current number of wild horses within the southwest portion of the HMA is 507 head. To reduce to the desired level of 160 head, a reduction of 347 head is necessary.

- 2. Maintain livestock season-of-use from November 1 through March 31 during the plant dormant season.
- 3. Continue monitoring studies to ensure 55% yearlong utilization is not exceeded in the key areas.

# Long Term Management Actions

- 1. Provide additional watering sites to improve distribution of wild horses and livestock.
- 2. Adjust livestock, wild horses, or both based on the analysis of the data of the continued monitoring studies.

# CARSON CITY DISTRICT, NEVADA



AREA REFERENCE MAP

