



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carson City District Office  
1535 Hot Springs Rd., Ste. 300  
Carson City, NV 89706-0638

TAKE  
PRIDE IN  
AMERICA

IN REPLY REFER TO:

4700  
(NV-03480)

Dear Interested Party:

AUG 03 1993

We inadvertently sent out the Final New Pass Herd Management Area Plan/Capture Plan (HMAP) without information on appeals and "Draft" still attached to the Finding of No Significant Impact/Decision Record (FONSI). Therefore, we are reissuing the Finding of No Significant Impact/Decision Record.

The enclosed Finding of No Significant Impact/Decision Record is my final decision implementing the New Pass Herd Management Area Plan/Capture Plan.

Within 30 days of receipt of this decision, you have the right of appeal to the Board of Land Appeals, Office of the Secretary, in accordance with the regulations at 43 CFR, Part 4, Subpart E. If an appeal is taken, you must follow the procedures outlined in the enclosed Form 1842-1, Information of Taking Appeals to the Board of Land Appeals. Within 30 days after you appeal, you are required to provide a Statement of Reasons to the Board of Land Appeals and a copy to the Regional Solicitor's Office listed in Item 3 on Form 1842-1. Please provide this office with a copy of your Statement of Reasons. Copies of your Appeal and the Statement of Reasons must also be served upon any parties adversely affected by this decision. The Appellant has the burden of showing that the decision appealed from is in error.

Thank you for your interest in the management of public lands. If you have any additional questions, please call John Axtell at (702) 885-6000.

Sincerely yours,

Associate

James W. Elliott  
District Manager

2 Enclosures:

1. Finding of No Significant Impact/Decision Record
2. Form 1842-1

VII. FINDING OF NO SIGNIFICANT IMPACT AND DECISION RECORD

Decision: Implement the New Pass HMAP/Capture Plan. The subject plan directs management actions for the New Pass HMA. The major actions in the subject plan include limiting vegetation utilization to 55%, providing habitat for wild horses and wildlife, outlining studies to assure that Land Use Plan objectives are being met and removing excess wild horses. The selected alternative is the proposed action which contains the above mentioned features.

Finding of No Significant Impacts: Based on the analysis of potential environmental impacts contained in the environmental assessment, impacts are not expected to be significant and an environmental impact statement is not required.

The Lahontan RMP stated that Herd Management Area Plans would guide the management of wild horses, through the determination of proper horse use levels. By maintaining the population of wild horses between 69 and 90 the vegetation utilization levels will be maintained at sustainable levels ( $\leq 55\%$  use), this action is not significant because a population of wild horses will be maintained within the HMA and the vegetation, wildlife and livestock will not be adversely impacted.

Using chemical or mechanical contraceptive techniques to decrease the rate of increase would result in fewer animals captured and placed into the adoption program. Contraceptive techniques will allow greater intervals between gathers which will result in less disturbances and stress to the horses. These actions are not significant because they lie within the scope of managing horses at the minimum feasible level. If contraceptive techniques are not used, succeeding removals will need to be conducted more frequently and additional animals will need to be placed into the adoption program.

To avoid adverse impacts to foals, foals will be weaned from their mares prior to the release of older excess mares into other Herd Management Areas. This action is not significant because impacts are avoided.

Unavoidable impacts in the form of injuries to the horses may occur during the removal process. Death loss is not expected to exceed 1% of the horses captured at the trap site. Some stress to the horses would be associated with the capture operations, however, after adoption the horses become accustomed to captivity. Because the loss of animals due to accidents is low the impacts involved in the capture operation are not significant.

Rational for decision: The decision to implement the New Pass HMAP/Capture Plan is in conformance with the Lahontan RMP, approved in 1985, and will maintain the range in a thriving ecological balance and prevent a deterioration of the range, as analyzed in the subject EA, in accordance with Sec. 3(b) of the Wild Free-Roaming Horses and Burros Act, as amended, 16 U.S.C. 1333(b) (1989). This will result in reduced soil erosion and improve the physical condition of wild horses.

The proposed actions will not adversely impact air quality, ACECs, cultural resources, farmlands, floodplains, Native American religious concerns, T&E species, wastes, water quality, wetlands and riparian zones, wild and scenic rivers or wildernesses.

Recommended for Approval by:

R.H. Wolfe acting for  
James M. Phillips  
Area Manager  
Lahontan Resource Area

Date 7/30/93

Approved by:

Karl J. Kipping  
James W. Elliott  
District Manager  
Carson City District

Date 8/3/93

Associate



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

CARSON CITY DISTRICT OFFICE

1535 Hot Springs Rd., Ste. 300

Carson City, NV 89706-0638



IN REPLY REFER TO:

4700  
(NV-03480)

JUL 19 1993

PROPOSED

Wild Horse Organized Assistance  
P.O. Box 555  
Reno, NV 89504

Dear Ms. Lappin:

Thank you for your comments concerning the draft New Pass Herd Management Plan/Capture Plan, Environmental Assessment (EA) and draft Finding of No Significant Impact. After careful consideration of the comments and a review of our land use planning objectives, our decision is to implement the proposed action contained in the draft document with a few changes which have now been incorporated into the final.

Each of your comments will be addressed as they appear in your letter dated June 16, 1993.

Paragraphs 2 and 3: To date the Lahontan Resource Area has released horses into different HMAs on two occasions. On both occasions the released animals were all freeze-marked. On both occasions helicopter flights were done to insure that the released animals were adjusting to the new HMA. We intend to freeze-mark all animals released into "new" HMAs and conduct post-release monitoring.

In the New Pass HMA we do not intend to go below the lower management range to make room for excess unadoptable horses. After reviewing the draft HMAP we realize that it was confusing and have made corrections in the final HMAP. During gathers we plan on releasing a few animals from other HMAs into the New Pass HMA to maintain genetic variability. During a gather we may go below the lower management level by approximately 5 animals and replace those 5 animals with 5 animals from a different HMA.

Paragraph 4: In the past we have recorded the age, sex, reproductive status and freeze-mark and placed this information into the HMA file, we will continue this practice.

Sincerely yours,

**Associate** James W. Elliott  
District Manager

- 1 Enclosures:  
1. Final New Pass HMA/Capture Plan. 33pp.

NEW PASS HERD MANAGEMENT AREA PLAN AND CAPTURE PLAN

<u>Table of Contents</u>		<u>Page</u>
I.	Resource and Background Information	3
	A. Introduction	3
	B. Background and History	3
	C. Land Use Plan Objectives and Constraints	3
	D. Other Activity Plans, Issues and Constraints	4
	1. Multiple Use Decisions	4
	2. Range Program Summary Update	4
	3. Allotment Management Plan	5
	4. Wildlife Habitat Management Plan	5
	E. Wild Horses	5
	a. Population	5
	b. Habitat Evaluation	6
	F. Livestock Use	6
	G. Wildlife Use	6
	H. Soils and Vegetation	6
	I. Recreation	7
	J. Water and Riparian	8
	K. Other Activities	8
	L. Wilderness	8
	M. Issue and Problem Summary	8
II.	Objectives & Management Methods	8
	A. Animal Objectives	8
	B. Habitat Objectives	10
III.	Management Evaluation & Revision	11
	A. Animal Studies	11
	1. Actual Use	11
	2. Demography	11
	B. Habitat Studies	11
	1. Utilization	11
	2. Use-Pattern Mapping	11
	3. Trend	11
	4. Ecology Status	12
	C. Evaluation	12
IV.	Funding	13
V.	Environmental Assessment	14
	A. Introduction and Purpose	14
	B. Description of Proposed Action and Alternatives	14
	1. Proposed Action	14
	2. No Action Alternative	15
	C. Affected Environment	15
	D. Environmental Impacts	15
	1. Proposed Action	15
	E. Coordination and Consultation	19
VI.	List of Preparers	20
VII.	FONSI & Decision Record	21
VIII.	Literature Cited	22
	Map 1, HMA Boundary and fences	24
	Map 2, Original delineation of the Herd Area	25
	Appendix 1, Animal numbers	26
	Appendix 2, Utilization Levels & Monitoring Schedule	27
	Appendix 3, Removal Procedures	28
	Appendix 4, Rate of Increase	33

## I. Resource and Background Information

### A. Introduction

This plan presents management direction for the Carson City District portion of the New Pass Herd Management Area (HMA). The New Pass HMA lies within the Carson City District and the Battle Mountain District. The entire HMA encompasses 225,000 acres of which 24,669 acres lie within the Carson City District. Unless otherwise stated all references to the herd area refer only to the Carson City District portion. The terms horse and wild horse both (Equus caballus) are used synonymously throughout this document.

In June of 1992 the Director of the BLM signed the Strategic Plan for Management of Wild Horses and Burros on Public Lands. This document provides goals and objectives for the management of wild horses and burros.

The authority for the proposed actions within this plan is contained in 43 CFR 4710.2, 4710.4, 4720.1, 4740.1, 4740.2 and the Wild Horse and Burro Act of 1971 (Public Law 92-195)

### B. Background and History

The New Pass HMA is located approximately 90 miles east of Fallon, Nevada. The topography of the HMA is primarily rolling hills from 5,200 to 8,000 feet in elevation. Portions of the HMA boundaries are formed by existing fences (map 1).

It is generally accepted that wild horses within the HMA originated from ranch stock that were turned out in the area.

The HMA contains approximately 24,669 acres of public and private land within the Carson City District in the Clan Alpine and New Pass grazing allotments. Approximately 7% and 3% of the Clan Alpine and New Pass grazing allotments occur within the HMA respectively, 90% of the HMA lies within the Clan Alpine Allotment. The HMA includes the entire herd area, that area delineated as wild horse habitat after (1975) passage of the Wild Horse and Burro Act, P.L. 92-195 (map 1 & 2). In the 1992 Clan Alpine AMP the Bell Flat Allotment was incorporated as a winter pasture in the Clan Alpine Allotment. Therefore, all acres and AUM's referring to the Clan Alpine Allotment will pertain to the summer pasture (original allotment) unless otherwise stated.

The predominant vegetation consists of pinion pine (Pinus monophylla), both Bailey and black greasewood (Sarcobatus baileyi & vermiculatus), shadscale (Atriplex confertifolia), fourwing saltbrush (Atriplex canescens), big sagebrush (Artemisia tridentata), spiny hopsage (Grayia spinosa), Nevada ephedra (Ephedra nevadensis), Indian ricegrass (Oryzopsis hymenoides), pine bluegrass (Poa spp.), Nevada bluegrass (Poa nevadensis), Sandberg bluegrass (Poa secunda), Thurber needlegrass (Stipa thurberiana) and bottlebrush squirreltail (Sitanion hystrix).

### C. Land Use Plan Objectives and Constraints

The Lahontan Resource Management Plan (RMP; Nov. 8, 1984) provides the general guidance for the management of the HMA. The RMP states that the Herd Management Area Plan (HMAP) would be the document that guides management of wild horses in HMAs.

The following decisions from the RMP affect the New Pass HMA:

- a. Maintain sound thriving populations of wild horses within HMAs.
- b. An HMAP will be developed for New Pass HMA.
- c. Initially manage for population levels of 175 and 11 horses in the Clan Alpine Allotment and New Pass Allotment portions of the HMA (186 animals for the HMA).
- d. Future adjustments in livestock and wild horses will be based on analysis of data from monitoring studies and consultation with interested parties.
- e. Develop waters for wild horses.
- f. Fences within wild horse herd areas will be located to minimize interference with normal distribution and movement of wild horses. Selected portions of new fences constructed in these areas would be flagged or otherwise marked for 1 year after construction to make them more visible to the wild horses.
- g. Maintain or improve the condition of public lands so as to enhance productivity for wildlife. Manage wildlife habitat to achieve a long-term goal of reasonable numbers of big game animals.
- h. Improve the condition and productivity of public rangelands to enhance livestock grazing. Limit vegetation utilization levels to 55% and improve trend.
- i. Provide for proper utilization within key areas, achieve better livestock distribution to obtain more uniform utilization, and provide for an increase in available forage and water for livestock, wild horses and wildlife.

D. Other Activity Plans, Issues and Constraints

Existing Activity Plans have stated objectives and constraints which relate to the HMA, and are summarized below.

1. Multiple Use Decisions 1992:

In 1992 Multiple Use Decisions (MUD's) were issued for the Clan Alpine grazing allotment (90% of HMA). This decision divided the available forage between wildlife, wild horses and livestock. The Appropriate Management Level (AML) and range in horse numbers was set at a maximum of 90 horses and a minimum of 69 horses for the Clan Alpine Allotment portion. This number and range was based on vegetation monitoring with the goal of achieving a thriving ecological balance between wildlife, wild horses, livestock and the vegetative community. Wildlife use within the allotments was adjudicated in accordance with the Lahontan RMP - 1985.

2. Range Program Summary Update 1989:

- a. Reduce the average use to 55% on key species (Range Program Summary Update 1989; RPS Update).
- b. Improve ecological condition in 20 years by 1 condition class (RPS Update, 1989).

- c. Limit utilization on meadows in identified sage grouse habitat to leave a minimum of 4" of growth by 15 September (RPS Update, 1989).
- d. Limit utilization to 55% on current years growth on riparian areas (RPS Update, 1989).
- e. Insure against adverse physiological stress to wild horses, by monitoring water availability (RPS Update, 1989).
- f. Maintain or improve wild horse habitat consistent with wildlife and livestock objectives (RPS Update, 1989).
- g. Maintain or improve free roaming behavior of wild horses by protecting or enhancing wild horse home ranges (RPS Update, 1989).
- h. Manage identified mule deer (Odocoileus hemionus) habitat to maintain a fair (26-50 rating) or better. Improve identified key deer summer range from fair to good (51-75 rating; RPS Update, 1989). Manage for 200 deer yearlong.

### 3. Allotment Management Plans:

There is an allotment management plan for the Clan Alpine Allotment.

### 4. Wildlife Habitat Management Plan:

The HMA is within the Desatoya Habitat Management Plan area. This Habitat Management Plan is currently in draft. No new wildlife objectives specific to the New Pass area are included in the draft.

### E. Wild Horses

#### a. Population

The Strategic Plan Recommended the following techniques to manage populations of wild horses:

- 1. Target specific age groups for removal.
- 2. Target a specific sex for removal.
- 3. Utilize fertility control techniques.
- 4. Develop a policy that allows, with few exceptions, for the removal of only adoptable animals (less than 10 years of age).
- 5. Nevada and Wyoming will use a selective removal strategy with fertility control that will assure that AML's are reached within a six-year time frame.

At the present time, the wild horses have unrestricted movement within the HMA and the majority of both allotments. Some of the wild horses are using areas outside of the HMA, as all or part of their home range. This is primarily due to the movement and colonization of new areas by a few horses.

The latest census was conducted in September, 1992, and resulted in a total of 40 wild horses counted inside the HMA.

An estimated 121 wild horses occupied the HMA in 1971, after the passage of the Wild Horse and Burro Act.



Population data are summarized as follows:

<u>Census Date</u>	<u># of Horses Counted</u>
1975	141
1988	200 <u>1/</u>
1989	90 <u>2/</u>
1992	41 <u>3/</u>

All censuses were conducted with rotary wing aircraft.

- 1/ Includes horses outside of the HMA.
- 2/ Removed 100 horses prior to census, an additional 26 animals were counted outside of the HMA.
- 3/ An additional 5 animals were counted outside of the HMA, it is suspected that the decrease of animals between the 1989 and 1992 census was caused by animals dispersing because of the continuing drought.

b. Habitat Evaluation

There are 2 springs within the HMA. One is completely dry and the other has only minor flows. Most of the horses appear to be watering on the Battle Mountain District side of the New Pass Mountains.

F. Livestock Use

The HMA lies within 2 grazing allotments. The Clan Alpine and New Pass grazing allotments have 9,200 and 176 AUM's of active grazing preference respectively (RPS Update, 1989). In 1992 an AMP for the Clan Alpine Allotment added the Bell Flat Allotment to the Clan Alpine Allotment as a winter pasture which increased livestock AUM's for the Clan Alpine Allotment to 10,210. This action did not affect the HMA nor the distribution of livestock within the HMA, therefore, throughout this document the AUM's and acreage used in the 1989 RPS Update will be used.

Clan Alpine Allotment:

Normally 8,200 AUM's of livestock use occur on the Clan Alpine Allotment (excluding Bell Flat pasture). Cattle use is from 1 May through 1 December and sheep use is from December 1 through March 15.

New Pass Allotment:

Normally 176 AUM's of cattle use occur on the Carson City District portion of the allotment.

G. Wildlife Use

The HMA includes habitat for mule deer, mountain lion (Felis concolor), chukar partridge (Alectoris chukar) and a variety of nongame species.

There are no known threatened or endangered animal species within the HMA.

H. Soils and Vegetation

The New Pass Mountains, which are included within the New Pass HMA, are typical of the north-south trending mountain ranges within the Great Basin. Soil parent material consists of an amalgam of paleozoic sedimentary and volcanics, triassic conglomerates, limestone and siltstone and tertiary rhyolite. On the steeper slopes and at higher elevations, soils are typically shallow or lithic (less than 14 inches depth), with high

percentages of coarse fragments (gravels, cobbles, and boulders) throughout. Percent organic matter can vary, but is usually relatively high in these high elevation soils. Lithic soils adjacent to peaks and ridges may be relatively deficient in this respect. Soil reaction in these high elevation soils is slightly alkaline. Soil temperature regimes in these soils is cryic in the highest elevations, and frigid in the Pinyon-Juniper zones.

Soils on mountain valley slopes and alluvial fans with moderate to gentle slopes typically will range in depth from moderately deep to very deep (>40 inches), and will contain a wide range of coarse fragments within the soil profile. Organic matter percentages within these soils is consistently higher, and the soil reaction (Ph) lower in areas within the mountain range. Soil temperature regimes in the lower elevation mountains are frigid on north exposures and mesic elsewhere.

The most productive soils, which exceed by many times the vegetative production of all of the other soils within this mountain range, are the riparian soils (soils adjacent to springs and seeps) Compared to these riparian soils, the vegetative production of the majority of soils within the HMA would have to be considered poor, with relatively little water-holding capacity, shallow depths, high percentages of rock fragments, and steep slopes.

The Lahontan Resource Area Vegetation Inventory of 1980-1982 collected the following data on ecological condition classes for sites in the allotments other than woodland and seedings which represent approximately 71% of the Clan Alpine Allotment. These condition classes were allotment wide, the HMA was not sequestered.

% Ecological Condition

<u>Allotment</u>	<u>Early Seral</u>	<u>Mid Seral</u>	<u>Late Seral</u>	<u>PNC*</u>
Clan Alpine	5	60	34	1

\*Potential Natural Community (PNC)

The selection of studies methodology and key area/key species to which these studies are correlated was made in accordance with procedures established in Nevada Rangeland Monitoring Handbook (NRMH) and the District's Monitoring Plan. There is 1 key area within the HMA. Key areas are selected, based on distance from water, typically receive moderate to heavy use, exhibit moderate potential and fair ecological condition, provide a significant amount of the available forage and are a likely indicator of any change of vegetation quality or quantity.

Clan Alpine Allotment portion of the HMA:

Utilization studies and use pattern mapping completed in 1988 documented that utilization levels were not exceeding 55%.

All utilization studies were conducted using the Key Forage Plant Method. Proper use is 55% or less on perennial grasses (key species) and 45% on shrubs as recommended in the Nevada Rangeland Monitoring Handbook.

There are no known threatened or endangered plants within the HMA.

I. Recreation

Due to the limited access and the remoteness of this HMA little recreation is believed to occur within this HMA. Chukar hunting is probably the major form of recreation in this area. Interpretive signs directing the public

toward areas frequented by wild horses probably would not increase visitation due to the limited access and poor roads of this area.

J. Water and Riparian

There are 2 springs, both of which require protection because of excessive trampling caused by wild horses.

K. Other Activities

There are several ongoing mineral exploration projects within the HMA, however, their activities are not thought to adversely impact the wild horses.

L. Wilderness

There are no Wilderness Study Areas within the HMA.

M. Issue and Problem Summary

The two springs within the HMA will need to be fenced to protect them from wild horses. The water would be allowed to flow under the fence or piped into a nearby trough to accommodate the horses. Prior to a horse removal in 1989 overutilization on the vegetation was a problem.

Allotment Evaluations made the following recommendations:

Clan Alpine Allotment Evaluation 1990:

1. "Stocking levels for both domestic livestock (and) wild horses should be kept at their present levels."
2. "By removing wild horses outside the herd areas and keeping wild horses within the proper appropriate management levels, short term goals for vegetation improvement for horse and cattle habitat will be improved."

II. Objectives and Management Methods

A. Animal Objectives

Objective 1

Maintain the wild horses in good or excellent physical condition.

Management Method

Provide an adequate amount of forage for the individual horses in the population by adjusting the population of wild horses to a level in balance with the forage productivity of the habitat within the HMA (Habitat Objective 1). Providing a proper amount of forage per animal will allow the animals to maintain themselves in a healthy condition, better able to withstand environmental fluctuations. Also, forage must be made available for wildlife and livestock

Prior to future removals current utilization data will be analyzed to determine if the AML's set in the multiple use decisions are still appropriate. Future gathers may be postponed if current data indicates that the HMA can support an increased horse population. Also, future gathers may decrease the horse population below the minimum AML if current monitoring data indicates that the AML is too high for current range conditions.

## Objective 2

Maintain the free-roaming nature of the wild horses.

### Management Method

All projects proposed on BLM administered land within the HMA will be carefully evaluated through an environmental assessment process as to their effect on free-roaming behavior and movement of wild horses.

## Objective 3

Maintain the wild horses within the HMA.

### Management Method

Improve the habitat within the HMA and identify key habitat areas within the HMA through monitoring efforts.

During periodic population reductions, horses gathered outside of the HMA will not be released back into the HMA (to the extent possible) as they will likely return to the area from which they were removed (Waring 1979, Tyler 1972 and observations of released horses within the Lahontan Resource Area). Any wild horses located outside of the HMA will receive priority for removal.

## Objective 4

Minimize the adverse effects of gathers to both the individual wild horses and the population.

### Management Method

Using a variation (managing horses within a range i.e. 69 - 90) below the maximum herd size indicated from analysis of monitoring data (Multiple Use Decisions 1992) will increase the time interval between captures, thereby reducing stress, injuries and deaths associated with capture operations.

Wild horses have an average rate of increase of between 14% and 24% annually (Garrott, 1990). From monitoring data, an annual growth rate of at least 9 percent can be expected under reasonable population levels in this HMA. The relatively low annual growth rate may be a result of horses dispersing to areas outside of the HMA. By reducing the population of wild horses within the HMA to a point below the maximum number of wild horses that the habitat can support and allowing the population to build back up to the maximum level the next removal could be delayed for 3 to 4 years. The number of wild horses would not exceed 90 (appendix 1) and would help achieve Habitat Objective 1.

Various forms of contraceptives (Strategic Plan) may be used to slow the rate of increase. Currently the most promising treatment is effective for approximately 1 year and may be extended for 2 or more years, and is administered via an intramuscular injection.

If wild horses were only reduced to 90, gathers would need to be conducted on a yearly basis which would lead to frequent band disturbances and other forms of adverse stress. Furthermore, yearly gathers would not be physically or fiscally feasible. Removal procedures are contained in appendix 3.

## Objective 6

Remove only adoptable animals (Strategic Plan).

### Management Method

During removals only adoptable animals (<10 years of age) will be removed for adoption. Older animals and animals with large scars or other features substantially decreasing their adoption potential will be released back into an HMA. Horses with severe permanent disabilities (i.e. broken legs, severely clubbed feet, etc) may be euthanized.

Foals of older mares (mares older than the ones selected for removal) which are too young to wean will be released back into the HMA with their mare. In order to minimize stress the mares with foals will be released separately from other mares and stallions. Depending upon the situation they may be released prior to the other animals or after the other animals have been released. Also, we may transport the mares with very young foals in a stock trailer to areas close to their core areas when feasible. The objective will be to maximize the period of time between releasing nursing mares with small foals and other animals.

## Objective 7

Maintain genetic diversity

### Management Method

Some unadoptable (i.e. older) stallions and/or mares from other HMAs may be released into the HMA, which will allow for gene flow between other HMA's within this Resource Area. Freeze marks will be applied to the released animals to facilitate future identification. Animals will either be released when snow is on the ground or held with indigenous horses for several days prior to release, in order to minimize the possibility of water related problems. Also, the released horses will be monitored following the release.

## B. Habitat Objectives

### Objective

Allow no more than 55% utilization on key plant grass species (Indian ricegrass, Idaho fescue, needle grass) and 40% on interim grass species (bottlebrush squirreltail and bluegrass).

### Management Method

One of the grazing allotments within this HMA may not have a utilization problem while another may. This is because each allotment has unique characteristics and the wild horses do not evenly distribute themselves throughout the HMA. Therefore, Appropriate Management Levels (AML's) were set by allotment so that if 1 allotment is being overutilized corrective actions can be taken on the allotment with problems while letting the horse population grow on other allotment within the HMA. The alternative to this approach would be to set the AML for the entire HMA based on the allotment with the most limiting resources. This would necessitate removal of horses in the other allotment at levels below the carrying capacity (potential maximum AML). Moving horses between allotments would not be practical in this situation because the horses would likely return to their original home range (Waring 1979, Tyler 1972, Resource Area observations).

### III. Management Evaluation and Revision

#### A. Animal Studies

The studies described below are designed to monitor the attainment of the specific management objectives developed for this HMA.

##### 1. Actual Use

Need: It is necessary to continue collecting data on the number and kinds (wild horses, wildlife and livestock) of animals which are utilizing the forage within the HMA in order to make quantifiable decisions with regard to wild horse, cattle and wildlife numbers and season of use.

Method: Helicopter censusing will be the method used to estimate the wild horse population in conjunction with on the ground identification of individual animals. Censuses will be conducted during July, August, September or October to include and identify young. These censuses will occur at 3 year intervals or less. Actual use by wild horses will be derived from population estimates.

##### 2. Demography

Need: Data are needed on the foaling rate of mares and the survival rate of foals and adults in order to determine the rate of increase.

Method: Capture data, ground and aerial observations will all provide baseline data. This will aid in determining the efficacy of different management strategies. Data will be analyzed using base-line parameters specific to this HMA where applicable. Age structure and annual rates of increase have been obtained from past gathers and aerial census. Also, age specific mortality and fecundity rates may be obtained from published data (Feist 1975; Wolfe 1980, 1989; Eberhardt 1982; Seal 1983; Siniff 1986; Garrott 1990a, 1990b, 1991a, 1991b, 1991c, 1991d).

#### B. Habitat Studies

##### 1. Utilization

Meeting habitat objective 1 will require the maintenance of utilization at 55% or less on key grass species (Indian rice grass, needlegrass and Idaho fescue; level recommended in the Nevada Rangeland Monitoring Handbook), and to 40% on bottlebrush squirreltail and Poa spp.

Need: To determine the amount of use (degree of utilization) occurring to the available forage by wild horses, livestock and wildlife.

Method: Utilization studies will be conducted prior to cattle turnout in dual use portions of the HMA. In addition to this, utilization data will be collected on the entire HMA at the end of each livestock grazing season. All utilization studies will be done using the Key Forage Plant Method. Each point where a utilization transect is run will be considered a study area and the location will be shown on the appropriate topographic map. (Outlined in BLM Handbook TR4/ 400-3 p. 11). Use pattern maps will then be constructed from these studies, showing use areas and intensity of utilization.

##### 2. Trend

Need: Trend refers to the direction of change of ecological condition. It indicates whether the rangeland is moving toward or away from its potential or toward or away from specific management objectives.

Method: Frequency transects at key areas are read every 5 years. Currently there is one key area within the HMA, however, it is not representative of the HMA, therefore an additional key area will be established.

### 3. Ecological Status

Need: Ecological status is determined by the present state of the vegetation and soil production of an ecological site in relation to the potential natural community for that site. Ecological range condition will be measured for each key area following MH 4400-1 guidelines (Soil Conservation Service National Range Handbook) to assure progress towards the desired seral stages.

Method: Once key species are identified a key area condition transect will be done. Key area condition transects will be re-evaluated upon measurement of a statistically significant change in frequency data. These results will be evaluated to determine change in frequency data (trend). Furthermore, results will also be evaluated to determine if the appropriate objectives have been realized. (Refer to Nevada Rangeland Monitoring Handbook p. 13).

### C. Evaluation

The entire plan will be evaluated in 1997 to determine if objectives are being attained.

All adjustments in livestock and wild horse use in the New Pass HMA will be based on rangeland monitoring. Monitoring information will be collected and evaluated on a yearly basis in accordance with the Nevada Rangeland and Monitoring Task Force Recommendations.

Utilization results and use pattern maps will be analyzed to determine if Habitat Objective 1 is being achieved. Actual use will be used in conjunction with utilization data in revision of the numbers in the plan. Horse and cattle numbers may be adjusted either  $\pm$  as utilization results indicate. Cattle adjustments will be based upon monitoring as described in the AMP's, specific for each allotment. Future Multiple Use Decisions may amend the numbers specified in this plan.

Adjustments in wild horse numbers will be based on the results of utilization studies (III. B. 1.) with the objective of limiting total vegetation use within the HMA to 55 percent or less on key species and 40 percent on interim species.

The formula for calculating proper use

$$\frac{\text{Actual use (AUMs)}}{\text{Average/Weighted Average Utilization}} = \frac{\text{Potential Actual Use (AUMs)}}{\text{Desired Average Utilization}}$$

When total utilization increases above 55 percent on key species and 40 percent on interim species, a gather will be conducted to bring the wild horse population to a level consistent with management objectives (see also II., A., objective 4.).

Horses that have established home ranges outside of the HMA will be removed as soon as is practical.

Results of the soil monitoring studies will also be used as an indication of the Habitat Objective being met.

Helicopter censuses will be key to identifying the need for removals in accordance with Animal Objective 1.

The young/adult ratios may indicate that removals need not be as frequent as estimated or they may indicate that removals need to be conducted more often.

Animal distribution and use pattern mapping will be used to reevaluate important water sources.

#### Modification

This plan may be modified if data from studies and experience indicate that changes are desirable. Also, animal numbers and ranges may be modified through future Multiple Use Decisions which result from ongoing monitoring.

#### IV. Funding

All actions undertaken pursuant to this plan are contingent upon available funding and manpower.



## New Pass Herd Management Area Plan and Capture Plan

A. INTRODUCTION AND PURPOSE

The purpose of this Herd Management Area Plan and Capture Plan (HMAP) is to maintain both a healthy wild horse population and maintain the range in a thriving ecological balance and multiple use relationship preventing deterioration of the vegetation community in the New Pass Herd Management Area HMA. This proposal is in conformance with the Lahontan Resource Management Plan (RMP).

Relationship to Other Environmental Documents

This EA is tiered to the Lahontan RMP Environmental Impact Statement (EIS) which analyzed the general ecological impacts of managing rangelands in the Lahontan area under a program including the monitoring and adjustment of wild horses and livestock. This EA is a project specific refinement of the RMP/EIS focused on the management of wild horses in the New Pass HMA. The decisions regarding overall rangeland management analyzed in the Lahontan RMP/EIS would not be changed by the New Pass HMAP/Capture Plan. These documents are available for public review at the Carson City District Office.

B. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES1. Proposed Action

The proposed action is to achieve a thriving ecological balance between the vegetative community, wild horses, wildlife and livestock and maintain the wild horse population in a healthy state. The specific objectives and management methods are described in the Objectives and Management methods section of the HMAP. They include:

Objective: Maintain an interval between removals of at least 3 to 4 years.

Management Action: Maintain wild horses within a population range of 69 - 90 for the Clan Alpine portion of the New Pass HMA.

Management Action: Apply contraceptives (chemical or mechanical) as they become available, some forms of contraceptives would be reversible. Contraceptives will be applied randomly to the animals within the target age class(es).

Management Action: Utilize a helicopter to herd horses into corrals constructed out of portable steel panels. Other motorized equipment would also be used.

Management Action: Nursing mares or foals which have become separated from their nursing mares may need to be roped. However, based on past removals it is anticipated that less than 1 percent of the animals will require roping.

Management Action: The Bureau of Land Management may contract with a private party for the removal operation. If a contractor is used he/she would be supervised at all times by Bureau employee(s).

Objective: Placing only adoptable horses into the adoption program.

Management Action: Only animals less than 10 years of age would be placed into the adoption program, other excess unadoptable horses would either be released into another HMA or back into the New Pass HMA.

Objective: Maintain horses within the HMA.

Management Action: Place horses removed from areas outside of the HMA into the adoption program, other HMA's or release them back into the New Pass HMA.

Objective: Maintain genetic variability.

Management Action: A few horses from other HMAs will be released into the HMA approximately every 3 - 5 years.

Objective: Maintain and improve riparian areas.

Management Action: Construct exclosures around the 2 springs.

## 2. Water Trapping

Horses would be gathered in traps constructed around water sources. Because the majority of these horses are watering on the Battle Mountain District side of the New Pass mountains with many "Battle Mountain horses" water trapping would not be feasible because the "Carson City horses" could not be distinguished from the "Battle Mountain horses". The general impacts associated with water trapping and helicopter trapping are essentially the same.

## 3. No Action Alternative

The no action alternative would not include any of the objectives and management actions. The wild horses would not be maintained at a level compatible with their environment, and they would continue to increase.

## 4. Alternatives Considered but not Analyzed

Herding horses from horse back was not analyzed because this alternative is not feasible in this HMA.

## C. AFFECTED ENVIRONMENT

The affected environment is described in sections E - K in the HMAP.

## D. ENVIRONMENTAL IMPACTS

### 1. Proposed Action

#### Impacts on Vegetation

Managing horses between 69 and 90, a level which can be maintained by the vegetation ( $\leq 55\%$  total use) with other uses (wildlife & livestock grazing) would result in the vegetative community being maintained or improved. Riparian areas would require protection in the form of exclosures to recover and maintain the vegetative diversity associated with them. During years of lower population levels the vegetation may receive benefits associated with less grazing pressure and disturbance associated with removal operations would be minimized.

#### Impacts on Horses

From analysis of monitoring data it was determined that 90 wild horses are

the maximum that the HMA can support (appendix 1) while maintaining an ecological balance between vegetation, wild horses, wildlife and livestock. In order to minimize the stresses and disruption of band structures the population of wild horses would be reduced below 90 and allowed to increase back to 90.

Managing horses between 69 and 90, a level which can be maintained by the vegetative community with other uses would minimize the stresses to the individual horses associated with limited food and space resources. Minimizing the day to day stresses would be especially important to the young animals. Managing the population which maximizes the intervals between removals minimizes the stresses associated with removals. Managing horses in harmony with their habitat and maximizing intervals between removals would result in only positive benefits (i.e. reduced stresses to the animals and a healthy vegetative community). Furthermore, it is not physically or fiscally possible to capture horses in the same HMA every year. If horses were allowed to increase above the AML then resource damage would occur, we are required by law to prevent the over allocation of the vegetative resource. Therefore, these wild horses will be reduced to a point that will allow the population to increase for 3 to 4 years until a successive removal is required.

Managing the wild horses within a range (i.e. 69 - 90) would require that the population be reduced below the maximum allowable population level. A healthy viable population would be maintained.

Using chemical or mechanical contraceptive techniques to decrease the rate of increase would result in fewer animals captured and placed in the adoption program. This would result in positive impacts to both the animals and the taxpayer by minimizing the number of excess animals.

Applying contraceptive techniques to a proportion of the population would decrease the rate of increase. This would allow greater intervals between gathers which would result in less disturbances and stress to the horses.

Applying reversible contraceptives randomly throughout the target age classes would not introduce artificial selection, would have minimal impact to the genetic make up of the population and allow the population to continue to adapt to a free roaming existence.

Specific contraceptive techniques chosen will most likely be delivered via intramuscular injections and will be reversible with time. Treating mares with contraceptives delivered intramuscularly would not increase the handling time or stresses ordinarily involved with capture operations because the older animals (>2 years old) are restrained in a squeeze chute to determine age. While the mares are being aged an intramuscular injection would be delivered.

The release of unadoptable stallions would likely replace any alleles lost by stochastic events and would allow the New Pass population to function as part of a metapopulation which is how many natural populations of animals evolved. Furthermore, introduction of genetic material will aid in maintaining and increasing the natural variability of the population. All impacts would be positive.

During periodic removals, animals captured from areas outside of the HMA would either be placed into the adoption program, released into other HMA's or released back into the HMA as far from the point of capture as possible. Horses are likely to return to their home ranges after release (Tyler 1972, Waring 1979 and post release census flights). Therefore, releasing animals back into the HMA would only be done when the other alternatives are not practical.

A combination of removing young animals and treating older animals with contraceptives would result in removing only readily adoptable animals (young animals) and slow the rate of increase. Thus, a minimal number of animals would need to be placed into the adoption program and the interval between gathers can be maximized. Leaving the older horses (10 years and older) in the population would preserve the genotypes that have proved most adapted to this HMA. The exact method or combination of methods will be determined prior to each gather and will be influenced by adoption demand, current rate of population increase and efficacy and cost of contraceptives. To insure no adverse impacts upon the population the most adverse case was analyzed, however, it is unlikely that it would be fully implemented. The most adverse case was to remove 90% of the animals 9 years of age and younger and to prevent conception in 90% of the remaining females for 2 years. This scenario would postpone the need for a subsequent removal for approximately 6 years.

Unavoidable impacts in the form of injuries to the horses may occur during the removal process. Death loss is not expected to exceed 1% of the horses captured at the trap site, based on past gathers. Potential injuries and fatalities can be limited through strict enforcement of contract specifications (appendix 3) 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 adoption, the horses become accustomed to captivity.

#### Impacts on Wildlife

Managing horses within a range of 69 and 90 (total utilization <= 55%) would have positive impacts on wildlife by insuring adequate forage and space for wildlife species. This horse level would help in meeting wildlife habitat requirements.

#### Other Impacts

Construction of exclosures to protect the spring sources and associated riparian vegetation would be required. Water would either flow under the exclosures or be piped to a nearby trough. Some may view an exclosure as a unnatural addition to the range. However, the overall benefits would outweigh any negative impacts since spring flow would be maintained or increased and riparian vegetation and habitat would be available to wildlife.

By managing horses at the identified levels forage would be available for grazing by livestock which would help meet RMP objectives and would allow a thriving ecological balance to be obtained and maintained between the vegetative community, wildlife, wild horses and livestock. It is anticipated that after the reduction the utilization would decrease to 55% on key species. Wild horse which are removed would be placed into private maintenance through the Bureau's Adopt a Horse Program.

The proposed actions would not adversely impact air quality, ACECs, cultural resources, recreation, farmlands, floodplains, Native American religious concerns, T&E species, wastes, water quality, wetlands and riparian zones, wild and scenic rivers or wildernesses. Fencing around riparian areas and springs may occur, however, in these situations degraded areas would be turned into functioning riparian areas.

No impacts would occur to cultural resources, as proposed trap sites, holding facilities, riparian and spring exclosures would be surveyed prior to construction in order to avoid those areas where cultural resources exist.

#### Alternative No. 1. Water Trapping

General impacts from a reduction in wild horse numbers would be identical to those outlined for the proposed action. 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 captivity and most would receive proper care.

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 overall 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 proposed trap sites, holding facilities, riparian and spring exclosures would be inventoried prior to construction in order to avoid those areas where cultural resources exist.

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, the horses would likely undergo more stress than with a helicopter capture. In addition it would take more manpower to implement this alternative, therefore, it would be significantly more expensive to the taxpayer than the proposed action.

#### No Action Alternative

The wild horses would not be maintained at a level compatible with their environment, and they would continue to increase. As the wild horse numbers increase the degradation of vegetation would be accelerated. Eventually most of the desirable plants would be lost from the HMA and surrounding area affecting all grazing animals including wildlife, livestock and horses.

Habitat improvement would not be realized with this alternative. The frequency of key species would decline. The animals would continue to search for food and further degrade their habitat, thereby reducing the carrying capacity of the area which would eventually lead to unacceptable adverse physiological stress and degraded vegetation condition.

The vegetation (quantity, quality and species evenness) would eventually decrease to a point which could no longer support the horse population, at this point a large proportion of the population would die. However, prior to the population crash the habitat would have deteriorated and undesirable exotic invader species such as halogeton (Halogeton glomeratus), cheatgrass (Bromus tectorum) and Russian thistle (Salsola kali) would have established themselves over large areas. Thus, the HMA's capacity to support horses would now be only a small percent of its potential capacity and it would take many decades of low or no grazing pressure to recover to its potential carrying capacity. The no action alternative would also preclude attainment of wildlife, soil, water and livestock objectives in the RMP.

Overutilization within and outside of the HMA would occur and as the range becomes further deteriorated the carrying capacity of the HMA and allotments would be reduced. The objective of limiting utilization to 55 percent or less would never be met. Downward trend would occur, and ecological condition would decline. In the long-term, the excessive utilization would eliminate nearly all the forage plant species. Attainment of RMP objectives would not be met.

Further deterioration of the range would occur and the area would not be in a state of thriving ecological balance between wild horses, wildlife, vegetation and livestock.

#### E. Coordination and Consultation

This draft HMAP / Capture Plan and EA has been sent to the following persons, groups and government agencies in order to solicit comments.

American Bashkir Curley Register  
Animal Protection Institute  
Barbara Eustis-Cross Executive Director L.I.F. E. Foundation  
Bobbi Royle  
C. Jean Richards  
Carson City District Grazing Advisory Board  
Commission for the Preservation of Wild Horses  
Craig C. Downer  
Dan Keiserman  
Debora Allard  
Dennis Rechel  
Ellison Sheep Co.  
Fund for Animals  
Humane Society of Southern Nevada  
International Society for the Protection of Mustangs and Burros  
Michael Kirk  
Mike Casey  
Kathy McCovey  
Nan Sherwood  
National Mustang Association  
National Wild Horse Association  
Nevada Cattlemen's Association  
Nevada Department of Wildlife  
Nevada Federation of Animal Protection Organization  
Nevada Humane Society  
Nevada Land Action Association  
Nevada State Clearinghouse  
Nevada State Division of Agriculture  
Paula Askew  
Rebecca Kunow  
Resource Concepts Inc.  
Save the Mustangs  
Sierra Club  
Steven Fulstone  
Swan Alder  
The Nature Conservancy  
U.S. Fish and Wildlife Service  
U.S. Humane Society  
United States Wild Horse and Burro Foundation  
Wild Horse Organized Assistance

VI. List of Preparers

Prepared by:

*John Axtell*  
John Axtell  
Wild Horse and Burro Specialist  
Lahontan Resource Area

21 Jan 93  
Date

Reviewed by:

*James M. Gianola*  
James M. Gianola  
District Wild Horse and Burro Specialist  
Carson City District

21 Jan 93  
Date

*David Loomis*  
David Loomis  
Environmental Coordinator  
Carson City District

1-21-93  
Date

*Russella E. Mechem - Acting ADM*  
Karl Kipping  
Associate District Manager  
Carson City District

1/21/93  
Date

VII. DRAFT FINDING OF NO SIGNIFICANT IMPACT AND DECISION RECORD


Decision: Implement the New Pass HMAP and Capture Plan which will:

1. limit utilization to 55% on key vegetative species,
2. provide adequate habitat for wild horses and wildlife,
3. outline studies to ascertain that Land Use Plan objectives are being met,

Finding of No Significant Impacts: Based on the analysis of potential environmental impacts contained in the environmental assessment, impacts are not expected to be significant and an environmental impact statement is not required.

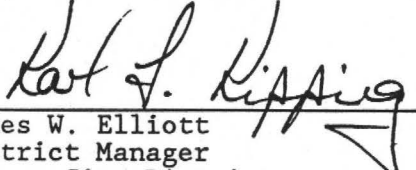
Rational for decision: The decision to implement the New Pass HMAP and Capture Plan is in conformance with the Lahontan RMP, approved in 1985, and will maintain the range in a thriving natural ecological balance and prevent a deterioration of the range, in accordance with Sec. 3(b) of the Wild Free-Roaming Horses and Burros Act, as amended, 16 U.S.C. 1333(b) (1989). This will result in reduced soil erosion and improve the physical condition of wild horses.

Recommended for Approval by:

  
\_\_\_\_\_  
James M. Phillips  
Area Manager  
Lahontan Resource Area

7/19/93  
\_\_\_\_\_  
Date

Approved by:

  
\_\_\_\_\_  
James W. Elliott  
District Manager  
Carson City District

7/19/93  
\_\_\_\_\_  
Date

**Associate**

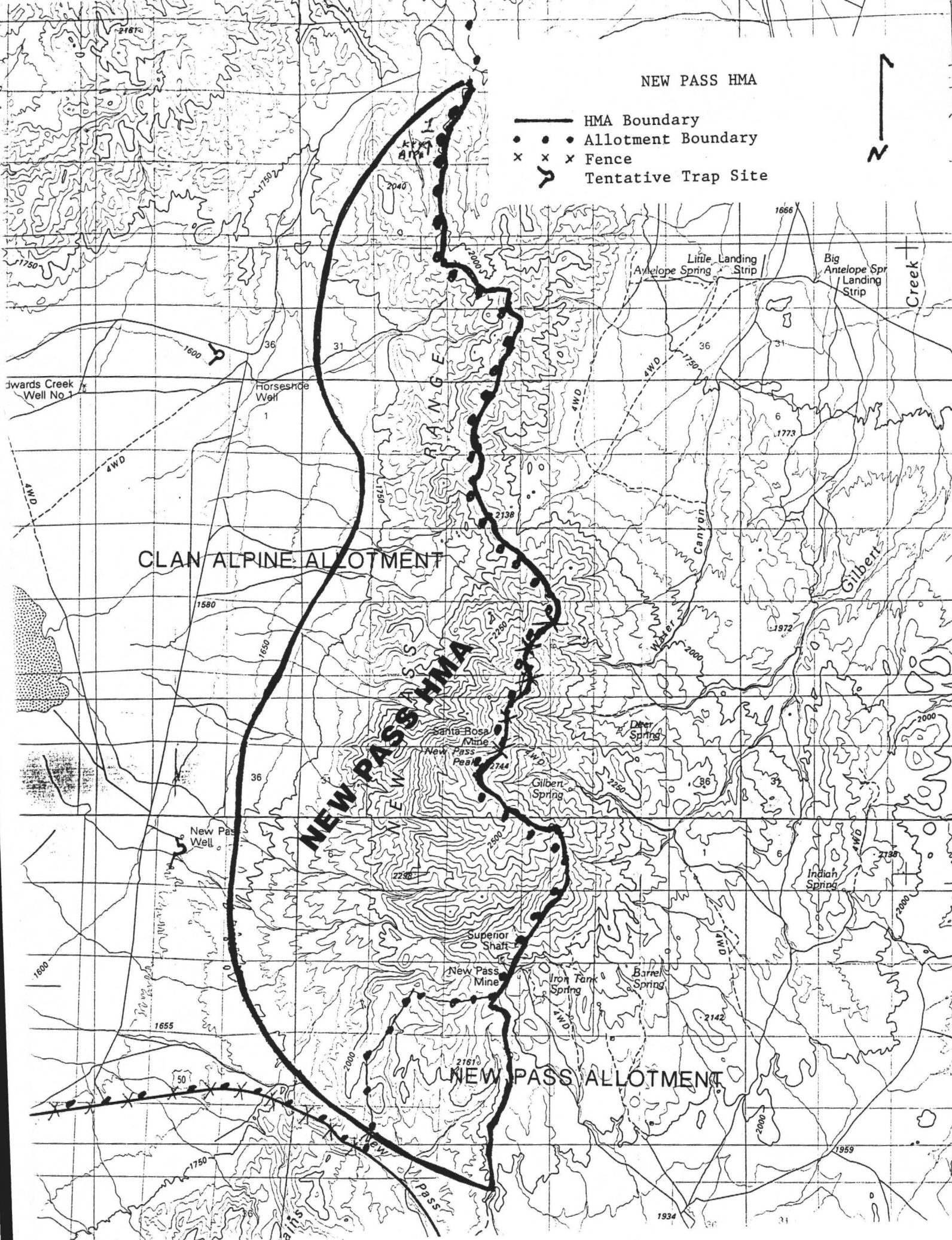


- Bowling, A.T. Wild horse parentage and population genetics, Final Research Report to USDI, BLM.
- Bowling, A.T. and R.W. Touchberry 1990. Parentage of Great Basin feral horses. *J. Wildl. Manage.* 54(3):424-429.
- Caughley, G. 1977. Analysis of vertebrate populations. John Wiley and Sons, New York, N.Y. 234pp.
- Eberhardt, L.L., A.K. Majorowicz and J.A. Wilcox 1982 Apparent rates of increase for two feral horse herds. *J. Wildl. Manage* 46(2):367-374.
- Eagle, T.C., E.D. Plotka, R.A. Garrott, D.B. Siniff and J.R. Tester 1992. Efficacy of chemical contraception in feral mares. *Wildl. Soc. Bull.* 20:211-216.
- Feist, J.D. and D.R. McCullough 1975. Reproduction in Feral Horses. *J. Reprod. Fert., Suppl.* 23:13-18.
- Garrott, R.A. 1990a. Demography of feral horse population in the western United States, PhD. Thesis Univ. Minn. 130pp
- Garrott, R.A. and L. Taylor 1990b. Dynamics of a feral horse population in Montana. *J. Wildl. Manage.* 54(4):603-612.
- Garrott, R.A., D.B. Siniff and L.L. Eberhardt 1991a. Growth rate of feral horse populations. *J. Wildl. Manage.* 55(4):641-648.
- Garrott, R.A., T.C. Eagle and E.D. Plotka 1991b. Age-specific reproduction in feral horses. *Can. J. Zool.* Vol. 69.
- Garrott, R.A. 1991c. Feral horse fertility control: potential and limitations. *Wildl. Soc. Bull.* 19(1).
- Garrott, R.A. 1991d. Bias in aging feral horses. *J. Range Manage.* 44(6):611-613.
- Garrott, R.A. and D.B. Siniff 1992. Limitations of male-oriented contraception for controlling feral horse populations. *J. Wildl. Manage.* 56(3):456-464.
- Hansen, Michael C., 1982. Diets of mule deer, pronghorn antelope, California bighorn sheep, domestic cattle, and feral horses in northwestern Nevada. Unpublished report to cooperators 45pp.
- Natural Resources Council, 1991. Wild horse populations: field studies in genetics and fertility, National Academy Press, Washington, D.C. 41pp.
- Seal, U.S. and E.D. Plotka 1983. Age-specific pregnancy rates in feral horses. *J. Wildl. Manage.* 47(2):422-429.
- Siniff, D.B., J.R. Tester and G.L. McMahon 1986. Foaling rate and survival of feral horses in western Nevada. *J. Range Manage.* 39(4):296-297.
- Tyler, S.J. 1972. The behaviour and social organization of the New Forest ponies, In *Animal Behaviour Monographs* Eds., Cullen, J.M. and Beer C.G., Oxford England pp 87-196.
- Wolfe, M.L. 1980. Feral horse demography: a preliminary report. *J. Range Manage.* 33(5):354-360.
- Wolfe, M.L., L.C. Ellis and R. MacMullen 1989. Reproductive rates of feral horses and burros. *J. Wildl. Manage.* 53(4):916-924.

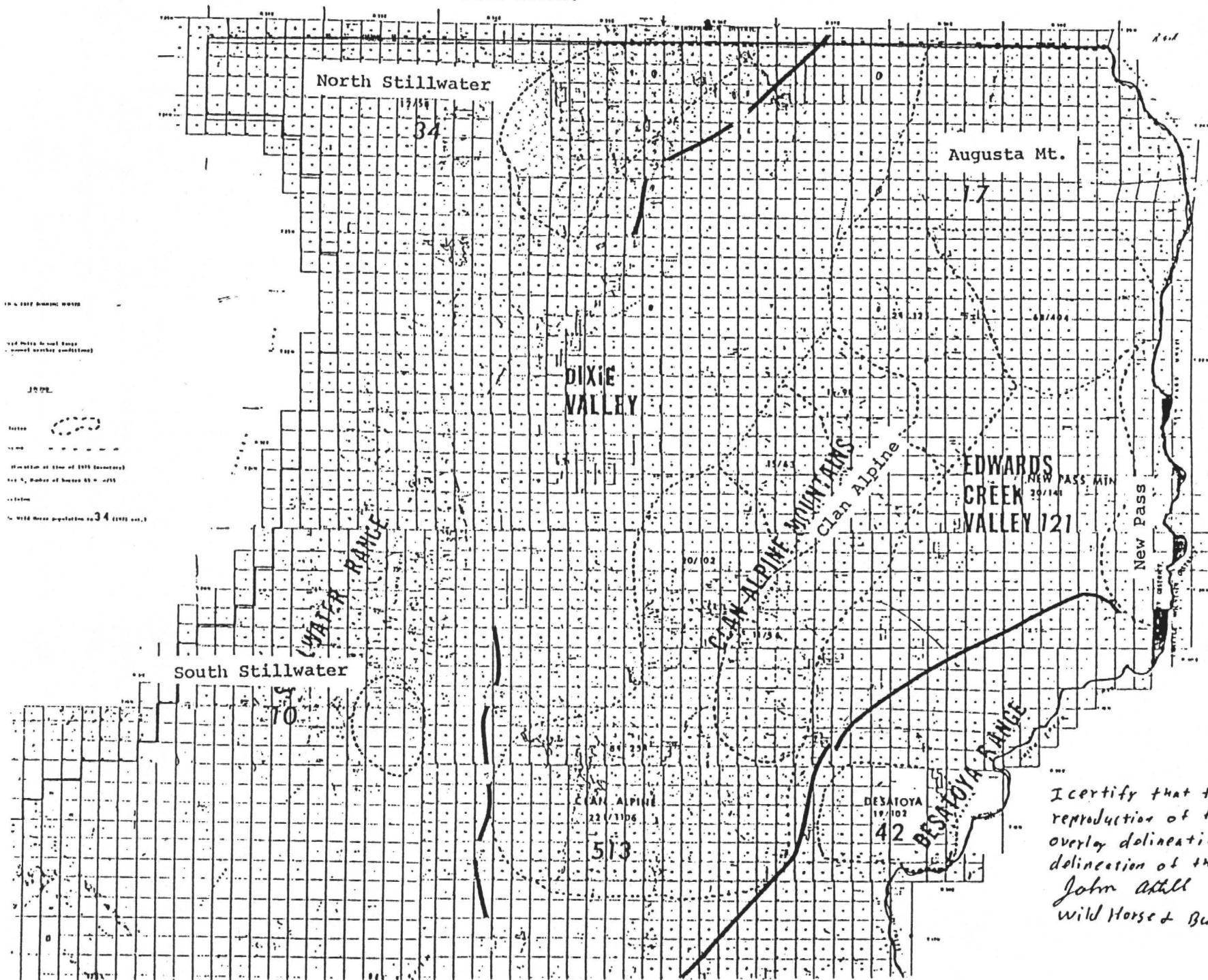
Waring, G.H. 1979. Behavioral adaptation as a factor in the management of feral equids in symposium on the ecology and behavior of wild and feral equids, Univ. of Wyoming Laramie pp. 85-92.

NEW PASS HMA

- HMA Boundary
- • • Allotment Boundary
- x x x Fence
- Y Tentative Trap Site



Augusta Mt., Clan Alpine, Desatoya Mt.  
 New Pass, North Stillwater, South Still-  
 water Herd Areas.



I certify that this is a accurate  
 reproduction of the original VRA  
 overlay delineating the first & only  
 delineation of the Herd Areas  
 John Atchell 24 Aug 89  
 Wild Horse & Burro specialist

## Appendix 1

### Animal Numbers

In 1992 a Multiple Use Decision (MUD) was issued on for the Clan Alpine Allotment which comprises 90 percent of the New Pass HMA. The decision was based on monitoring data involving wild horses and livestock within the HMA.

Utilization levels in the New Pass HMA portion of the allotment were in balance with available forage, therefore, the decision set the current numbers as correct.

The latest complete census of this area was conducted in September of 1992 and documented 41 horses in the Clan Alpine Allotment portion of the New Pass HMA. However, when the MUD was issued the 1989 census, of 90 animals was the most current data and this number (90) was used. When information for the Multiple Use Decision was analyzed the 1989 census was used.

Chemical or mechanical contraceptives may also be used to retard the rate of increase, thereby permitting gathers to be deferred for greater time intervals. Removing horses from various age groups would also be employed. It is not anticipated that removing animals older than 9 years of age would occur. The precise technique used at each removal would vary depending on the cost and efficacy of contraceptives versus the current adoption demand.

	AML (Range from MUD)	Current # (1992)
Clan Alpine Allotment Portion of the HMA	69 - 90	41

## APPENDIX 2

### Utilization Levels and Monitoring Schedule

The Multiple Use Decision issued set both livestock and horse numbers for the Clan Alpine allotment. However, future monitoring may indicate that adjustments in grazing use is required to meet RMP objectives. If either livestock or horse use can be shown to exceed 55% use in areas where only one species graze then the offending species will be reduced. If overutilization occurs in dual use areas reductions in both livestock and horses would be required. A Multiple Use Decision would then be issued to reflect current monitoring information.

#### Clan Alpine Allotment Portion of the New Pass HMA:

Monitoring in the dual use area will be done on or around 1 December and 1 February, depending on when the livestock are using the HMA portion of the allotment. The entire Clan Alpine Allotment portion of the New Pass HMA will be monitored on or around February 15. Use on previous years growth needs to be limited to 55% by the beginning of the growing season (March).

Winter use by domestic sheep occurs in the north eastern portion of the Clan Alpine Allotment. The majority of livestock use in this HMA is sheep use.

Livestock numbers will be obtained from actual use statements. Horse numbers will be obtained from censuses which will be conducted every 2 to 3 years and after each removal. Horse distribution will be obtained from censuses, distribution flights and observations made from the ground.

## Appendix 3

### Removal Procedures

#### I. Methods for Removal and Safety

The methods employed during this capture operation will be either herding horses with a helicopter to a trap built with portable panels or capturing the horses using portable panels around water troughs. The Bureau of Land Management may contract with a private party for part or all of this operation. If a private party is used for this operation, Bureau employees will supervise the contractor at all times during the gathering operation. The following stipulations and procedures will be followed during the contract to ensure the welfare, safety and humane treatment of wild horses and that wild horses are removed from proper areas. If capture operations are performed by Bureau personnel, the Bureau will follow the same stipulations that are required of a private contractor.

##### A. Roundup Procedures within Contract Area:

The Contracting Officer's Representative (COR) or Project Inspectors (PI) will determine specific roundup areas and numbers of animals to be gathered within general contract areas as animal concentration, terrain, physical barriers and weather conditions dictate. Upon determination of the specific roundup areas, the COR/PI will select the general location of trap sites in which to herd the animals. Animal concentration, terrain, physical barriers and weather conditions will all be considered when selecting trap sites.

##### 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.
2. Vehicles shall be in good repair, of adequate rated capacity, and operated so as to insure that captured animals are transported without undue risk of injury.
3. Only stock trailers shall be allowed for transporting animals from traps to temporary holding facilities. Only Bobtail trucks, stock trailers, or single deck trucks shall be used to transport animals from temporary holding facilities to final destination. Sides of stock racks 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 2 partition gates to separate animals. Trailers less than 40 feet shall have at least 1 partition gate to separate the animals. Each partition shall be a minimum of 6 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 1 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/PI 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 8 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 weak horses from the rest, if they could be injured during the trip. Distance and condition of the road and animals will be considered 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 authority to off-load animals should there be too many horses on the trailer or truck.

7. The COR/PI shall consider the condition of the animals, weather conditions, type of vehicles, distance to be transported, and other factors when planning for the movement of captured animals. The COR/PI shall provide for any brand inspection or other 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 the condition of shipped horses. Should problems arise, shipping methods or separation of the horses will be changed in an attempt to alleviate the problems.

8. If the COR/PI 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 15 miles.

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 or time trips to ensure compliance.

#### C. Trapping and Care

1. The helicopter shall be used in such a manner that bands of horses will remain together. Foals shall not be left behind.

The Carson City District may use an observation helicopter to supervise the use of the project helicopter. In the absence of an observation helicopter a saddle horses may be used to place a BLM observer on a point overlooking the area of the helicopter herding operations. Mares will be checked soon after capture to determine if they are nursing. If nursing mares are captured without foals intensive monitoring will be conducted to identify the reason(s) foals are being abandoned and a solution will be developed. The health and well being of the captured animals are paramount and foals will not be left behind.

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



BLM will not allow horses to be herded more than 12 miles. The COR/PI may decrease the distance moved should the route to the trap site be steep or rocky enough to pose a danger or cause avoidable stress. Animal condition will also be considered in making distance and speed restrictions.

Special attention will be given to avoiding physical hazards such as fences. Map 1 shows locations of fences and any other potential hazards.

3. It is estimated that 1 trap location will be required to accomplish the work. All trap locations and holding facilities must be approved by the COR/PI prior to construction. Proposed trap sites and holding facilities will be inventoried prior to construction in order to avoid those areas where cultural resources exist. The contractor may also be required to change or move trap locations as determined by the COR/PI. All traps and holding facilities not located on public land must have prior written approval of the landowner.

If tentative trap sites (Map 1) are not located near enough to the concentrations of horses, then the trap site will not be approved. The COR/PI will move the general location of the trap closer to the horses. Trap sites will not be approved where barbed-wire fences are used as wings, wing extensions, or to turn the horses, during herding, toward the trap.

4. 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.

b. The loading chute shall 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.

d. Wings shall not be constructed out of barbed-wire or other materials injurious to animals and must be approved by the COR/PI.

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.

5. No fence modification will be made without authorization from the COR/PI. 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 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.

6. 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.

7. Alternate pens within the holding facility shall be furnished by the contractor to separate mares with small foals, sick and injured animals, and stray 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 injury due to fighting and trampling.

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

8. Animals shall be transported to final destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the COR/PI for unusual circumstances. Animals shall not be held in traps or temporary holding facilities on days when there is no work being conducted except as specified by the COR/PI. The contractor shall schedule shipments of animals to arrive at final destination between 6:00 a.m. and 4:00 p.m.

9. The contractor shall provide animals held for 5 hours or more in the traps 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 2 pounds of hay per 100 pounds of estimated body weight per day.

10. It is the responsibility of the contractor to provide security to prevent loss, injury or death of captured animals until delivery to final destination.

11. The contractor shall restrain sick or injured animals if treatment by the government is necessary. The COR/PI 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/PI.

12. 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.

13. Mares and foals will be paired up soon after capture and separated from other adult horses. Mares that are within the target age group for removal will be shipped to PVC with their foal. Foals of older mares (mares older than the ones selected for removal) that are old enough to wean, will be weaned and shipped to PVC. While holding animals at temporary corrals every effort will be made to pair up mares with foals. Any foals that do not pair up with an mare will be shipped to PVC.

14. Foals of older mares which are too young to wean will be released back into the HMA with their mare. In order to minimize stress to the foals, older mares and their foals will be released separately from other mares and stallions. Depending upon the situation they may be released prior to the other animals or after the other animals have been released. Also, we may transport the mares with very young foals in a stock trailer to areas close to their core areas when feasible. The objective will be to maximize the period of time between releasing small foals and other animals. Also, mares with foals will be released in small groups to minimize the likelihood of the adult horses running off too quickly for the foals to keep up.

15. Following the release of animals from corrals or trailers, the area surrounding the release site will be monitored to determine the success of the release prior to the contractor moving to another area or the termination of the task order.

## II. 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.

## III. Responsibility

The District Manager is responsible for maintaining and protecting the health and welfare of the wild horses. To ensure the contractor's compliance with the contract stipulations, the COR and PIs all from the Carson City District, will be on site. Also, 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 of the District Manager, Area Manager, COR and PIs.

The COR and/or 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 condition of roads that 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 (i.e. veterinarian present, or delay of capture operations). This is of special concern during this year of drought which may intensify the impact of removal operations on the animals and the roads.

## Appendix 4

### Rate of Increase

Several authors (Siniff 1986 and Garrott 1990a, 1991a, 1991b, 1991c) looked at rates of increase in wild horse herds and concluded that the lowest rate of increase is between 14 -15% annually, and in areas where sufficient forage is available, rates of increase can approach 23 -24% annually. Data specific for this HMA show a rate of increase of 8% annually (from 1988 to 1989 the population inside and outside of the HMA went from 200 to 216), solving for  $\lambda = e^r$ ;  $N_t = N_0 e^{rt}$  yield a annual rate of increase of 1.08 or 8% (Caughley 1977). However, it is likely that after a removal the annual rate of increase will increase due to more resources being made available to individual animals.