



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Ely Field Office
HC33 Box 33500 (702 N. Industrial Way)
Ely, Nevada 89301-9408
<http://www.blm.gov/nv/st/en.html>



NOV 16 2007

In Reply Refer to:
NV-040-08-004

Dear Interested Party:

The Bureau of Land Management (BLM) Ely and Elko Field Offices (FOs) are proposing to gather and remove approximately 950 wild horses, from the Antelope Herd Management Area (HMA) and that portion of Antelope Valley HMA east of US Highway 93 Alternate in December of 2007 in order to prevent a catastrophic loss of wild horses within the HMAs due to continuing drought conditions. This wild horse herd is being managed as a single population due to the HMAs proximity to one another and past capture, census, field observations and distribution data collected indicate movement among wild horses between these HMAs. The gather would occur in December 2007, and last approximately 25 days. The action should prevent deterioration of the range, as well as maintain a thriving natural ecological balance and multiple use relationships with other users.

Enclosed are the Emergency Wild Horse Gather Plan and Preliminary Environmental Assessment for the Antelope and Antelope Valley Herd Management Areas (E.A.) NV-040-08-04. If any member of the interested public would like to provide any information, data, or analysis please send written comments to Kyle Hansen, Acting Assistant Field Manager, Renewable Resources, at Ely Field Office, Bureau of Land Management, HC 33 BOX 33500, Ely, Nevada 89301. **All comments must be post marked by December 1, 2007 No Email comments will be accepted.**

If you have any questions, please contact Ben Noyes, Wild Horse and Burro Specialist, Ely Field Office at (775) 289-1836

Sincerely,

Kyle Hansen
Acting Assistant Field Manager
Renewable Resources

RECEIVED

NOV 20 2007

DEPARTMENT OF ADMINISTRATION
OFFICE OF THE DIRECTOR
BUDGET AND PLANNING DIVISION

**United States Department of the Interior
Bureau of Land Management**

Ely and Elko Field Office

November 2007



Emergency Wild Horse Gather Plan and Preliminary
Environmental Assessment for the Antelope and
Antelope Valley Herd Management Areas

NV-040-08-EA-04

Introduction

Background Information

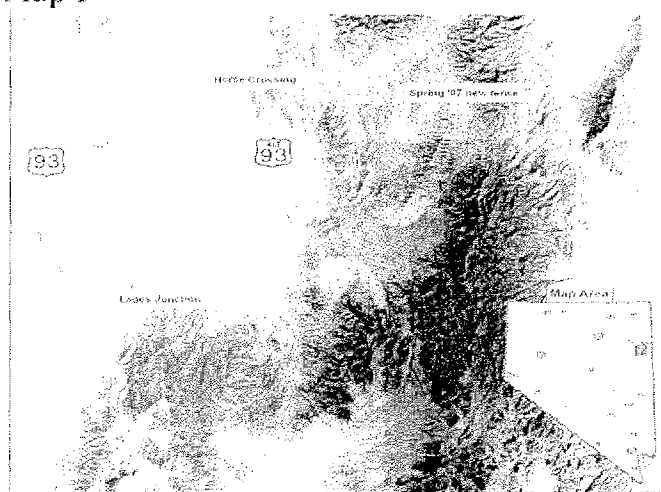
The Ely and Elko Field Offices (FOs) are proposing to gather and remove approximately 950 wild horses, from the Antelope Herd Management Area (HMA) and that portion of Antelope Valley HMA east of US Highway 93 Alternate in December of 2007 in order to prevent a catastrophic loss of wild horses within the HMAs due to continuing drought conditions. The Antelope and Antelope Valley HMAs are located approximately 50 miles north east of Ely, Nevada, within White Pine and Elko Counties. Refer to Map 1 for General Location and Map 2 for HMA/Herd Areas (HA).

The Antelope and Antelope Valley HMAs were last gathered in 2004 as part of the Antelope Valley Complex. A total of 964 excess wild horses were removed at that time. An estimated 160 wild horses in the Antelope HMA and 140 in the Antelope Valley HMA remained post-gather. However, aerial census of the Antelope and that portion of the Antelope Valley HMA east of Hwy 93 Alternate in October 2007 estimated the actual population at 745 and 436 wild horses, respectively.

The number of excess wild horses found in the affected area is primarily attributable to the construction of a fence along both sides of US Highway 93 Alternate in the spring of 2007. Wild horses in these HMAs traditionally move back and forth from the Antelope HMA, (Ely District) in the summer to the Antelope Valley HMA (Elko District) during the winter. However, in the spring of 2007, the Nevada Department of Transportation (NDOT) fenced the Hwy 93 Alternate right of way to assure public safety. This new fence divided the eastern 1/3 of the Antelope Valley HMA from the rest of the management area, with the result that these animals can no longer migrate to their traditional winter range in the Dolly Varden Mountains. As a result, the current estimated wild horse population within the proposed capture area is 1,181 animals, about 3.3 times the appropriate management level (AML) of 362 wild horses.

Coupled with the fence project, the area has also been heavily impacted by continuing drought conditions. Available water is limited west of US Highway 93 Alternate. Additionally, on the ground range monitoring indicates there is not enough forage to carry this number of wild horses through the winter. Even if the animals could migrate to their traditional winter range (west of Hwy 93 Alternate), there is not enough forage and water currently available to maintain animal health. In the absence of an emergency removal of excess wild horses, catastrophic loss of wild horses due to starvation is likely.

Map 1



Purpose of and Need for Action

The purpose of this action is to remove excess wild horses in the Antelope Herd Management Area (HMA) and that portion of Antelope Valley HMA east of US Highway 93 Alternate to prevent a catastrophic loss of wild horses within the HMAs over the winter because forage is not adequate to support this number of wild horses. Continuous years of drought have led to poor range conditions in the HMAs, and little new forage growth in many key grazing areas.

Vegetation monitoring in relation to use by wild horses in the HMAs has determined that current wild horse population levels are exceeding the capacity of the area to sustain wild horse use over the long term. Resource damage is occurring and is likely to continue to occur without immediate action. The proposed capture and removal is needed at this time in order to achieve a thriving natural ecological balance between wild horse populations, wildlife, livestock and vegetation, and to protect the range from the deterioration associated with overpopulation of wild horses as authorized under Section 3(b) (2) of the 1971 Free-Roaming Wild Horses and Burros Act and section 302(b) of the Federal Land Policy and Management Act of 1976.

Land Use Plan Conformance

The Proposed Action and Alternatives are in compliance with the Wells Resource Management Plan (RMP) approved July 16, 1985. Issue 7: Wild Horses - management decisions 1, 2, and 3 direct the management of wild horses in the project area. An amendment to the Wells RMP was approved August 1993. This amendment further outlines the level of management for wild horses within the planning area including the Antelope Valley HMA.

The Proposed Action and Alternatives are in compliance with the Schell Management Framework Plan (MFP), Schell Grazing Environmental Impact Statement (EIS), and subsequent Record of Decision (ROD) dated 1983 and the Egan Resource Management Plan and Final Impact Statement (RMP/FEIS) Feb 3 1987. The proposed wild horse gather is in conformance with the Schell MFP as required by regulation (43 CFR 1610.5-3(a)). The White Pine County Policy Plan for Public Lands (PPPL) as adopted by the Board of County Commissioners of White Pine County, May 1, 1985 and amended June 12, 1985. This plan stated in part "...wild horse herds should be managed at reasonable levels to be determined with public involvement and managed with the consideration of the needs of other wildlife species and livestock. The action is also in conformance with the White Pine County Elk Management Plan (EMP), approved March 1999.

The Proposed Action and Alternatives are further consistent with other federal, state, and local laws and regulations, policies and plans to the maximum extent possible. This includes applicable regulations at 43 CFR (Code of Federal Regulations) 4700 and policies, Public Law 92-195 (Wild Horse and Burro Act of 1971), Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines for Rangeland Health (November 2003), and the 2001 BLM Strategic Plan for the Management of Wild Horses and Burros on Public Lands.

Conformance with Rangeland Health Standards

The Antelope HMA have been assessed for conformance with Rangeland Health Standards and Guidelines as part of North Spring Valley and Antelope Valley Watershed Assessments. The assessment states that wild horses are contributing to the non-attainment of the Standard and Guidelines for the Antelope HMA. The assessment also recommended that AML should be maintained for the Antelope HMA to help achieve rangeland health standards. Historical levels of grazing use by wild horses are factors that have contributed to not meeting the upland standard.

1 Upland Sites Standard (Not Meeting the standard but making significant progress toward.)

2 Riparian and Wetland Sites Standard (Not Meeting the standard but making significant progress toward.)

3 Habitat Standard (Not Meeting the standard but making significant progress toward.)

Issues

The BLM Ely Field Office has discussed the proposed removal with Forest Service, and the Nevada Department of Wildlife. The following issues were identified as a result of internal scoping and agency consultation and will be used in the preliminary EA to analyze the alternatives:

1. Will the Proposed Action achieve and maintain the appropriate management level of wild horses and remove wild horses residing outside HMA boundaries?
2. What are the potential impacts to wild horses, as well as other elements of the human environment, from proposed capture, removal and handling procedures?
3. What are the current impacts to natural resources, domestic livestock and native wildlife resulting from the current overpopulation of wild horses? What effect will achieving and maintaining AML have on these resources?

Proposed Action and Alternatives

This section of the EA describes the Proposed Action and alternatives, including any that were considered but eliminated from detailed analysis. Alternatives analyzed in detail including the following:

- Alternative A – Proposed Action (Remove Wild Horses in Excess of AML – Helicopter Removal)
- Alternative B – No Action Alternative (Defer Population Control)

The Proposed Action alternative was developed to meet the purpose and need (i.e. achieve and maintain AML and prevent further deterioration of the range associated with the current overpopulation) and in response to the issues identified during internal scoping and agency consultation. Although the No Action alternative does not comply with the 1971 WFRHBA (as amended), nor meet the purpose and need for action, it is included as a basis for comparison with the Proposed Action.

Alternative A – Proposed Action

The Proposed Action is to capture about 80% of the current population of wild horses or about 950 wild horses in December 2007. The animals gathered would be removed and shipped to BLM holding facilities where they will be prepared for adoption to qualified individuals or long term holding. The estimated population remaining on the range following the gather would be about 194 wild horses for Antelope HMA, and 23 for Antelope Valley HMA. All horses residing outside the HMAs would be gathered and removed.

Removal to the low range of AML for the Antelope and the Antelope Valley HMAs is necessary due to continued drought and current resource damage. This level of animals was determined to ensure a “*thriving natural ecological balance*”, to alleviate resource damage that is currently occurring, and allow vegetation to recover from the continued drought and wild horse overpopulation.

All capture and handling activities (including capture site selections) would be conducted in accordance with the Standard Operating Procedures (SOPs) described in Appendix I. Multiple capture sites (traps) may be used to capture wild horses from the HMA. Whenever possible, capture sites would be located in previously disturbed areas. Capture techniques would be the helicopter-drive trapping method and/or helicopter-roping from horseback. Selection of animals for removal and/or release would be guided by BLM’s *Gather Policy and Gate Cut Removal Criteria for Wild Horses* (Washington Office IM 2005-206). Under this policy, animals ages 5 and above would be prioritized for release post-gather. Refer to Appendix II for additional information.

Alternative B – No Action Alternative

Under the No Action Alternative, a gather to remove excess wild horses would not take place beginning in about December 2007. There would be no active management to control the size of the wild horse population at this time. The current population of 1,181 wild horses would continue to increase at a rate of 20-25% annually and would be allowed to regulate their numbers naturally through predation, disease, and forage, water and space availability. Many of these wild horses are starting to lose body condition and could suffer from starvation, which is cruel and inhumane when viable options exist such as gather/removal before herd health is jeopardized. Existing management, including monitoring, would continue.

The No Action Alternative would not comply with the 1971 WFRHBA or with applicable regulations and Bureau policy, nor would it comply with the Northeastern Great Basin RAC Standards and Guidelines for Rangeland Health and Healthy Wild Horse and Burro Populations. However, it is included as a baseline for comparison with Proposed Action, as required under the 1969 National Environmental Policy Act (NEPA).

Alternatives Considered But Eliminated From Further Analysis

Water/Bait Trapping Alternative

An alternative which was eliminated from consideration was to water/bait trap wild horses within the HMAs. This alternative was eliminated because of the size and extent of the HMAs, the number of wild horses to be removed within heavy tree cover, and the limited time the contractor is available in order to complete this gather. In summary, bait/water trapping would not effectively meet the purpose and need.

Helicopter Drive Animals Across US Highway 93 Alternate to their Traditional Winter Range

Another alternative considered was the option of driving the wild horses from the summer range (Ely District) to their traditional winter range (Elko District). However, due to the eighth consecutive year of drought, the winter range also has insufficient forage and water to carry this number of wild horses safely through the winter. Additionally, this would compound resource impacts on the winter range, when horses could not return to their summer range in 2008. As a result, this alternative was eliminated from detailed study.

Description of the Affected Environment and Environmental Consequences

This section of the environmental assessment briefly discusses the relevant components of the human environment which would be either affected or potentially affected by the Proposed Action (refer to Table 2 and 3 below). Direct impacts are those that result from the management actions while indirect impacts are those that exist once the management action has occurred. By contrast, cumulative impacts result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

General Description of the Affected Environment

The Antelope and Antelope Valley HMAs are located in northeastern White Pine County and southeastern Elko County approximately 50 air miles north of Ely, Nevada. The area is within the Great Basin physiographic regions, ranging from rolling plateaus to steep mountain peaks covered with heavy

pinyon juniper. On many of the low hills and ridges that are scattered throughout the area, the soils are underlain by bedrock. Elevations within the Complex range from approximately 5,000 feet to 10,000 feet. Precipitation normally ranges from approximately 7 inches on the valley bottoms to 16 to 18 inches on the mountain peaks. Most of this precipitation comes during the winter months in the form of snow. Temperatures range from greater than 90 degrees Fahrenheit in the summer months to minus 15 degrees in the winter. The area is also utilized by domestic livestock and numerous wildlife species. The area is bordered to the west by Hwy 93 and to the east by the Utah-Nevada state line.

The boundary between the Antelope HMA and that portion of the Antelope Valley HMA east of Highway 93 Alternate does not have a continuous fence or natural boundary and wild horses move regularly between the HMAs for water and forage.

Table 1. Critical Elements Checklist

Critical Elements	Present	Affected	Rationale
Air Quality	Yes	No	The proposed gather area is not within an area of non-attainment or areas where total suspended particulates exceed Nevada air quality standards. Areas of disturbance would be small and temporary.
Areas of Critical Environmental Concern (ACECs)	No	No	No areas of critical environmental concern are within or affected by the proposed gather area.
Cultural Resources	Yes	No	A number of known cultural resources exist within the proposed gather area that would be avoided during capture operations. Trap sites and holding facilities located in areas that have not been previously surveyed would be surveyed before the gather begins to prevent any effects to cultural resources.
Environmental Justice	No	No	The Proposed Action would have either no effect or negligible effect on minority or low-income populations.
Floodplains	No	No	Resource not present.
Waste (Hazardous or Solid)	No	No	Not present.
Noxious & Non-Native Invasive Weeds	Yes	Yes	Any noxious weeds or non-native invasive weeds would be avoided when establishing trap sites and holding facilities and would not be driven through to prevent the spread of noxious weeds. The amount of ground disturbance and not using weed-free certified forage could lead to new infestations(See appendix VII)
Native American Religious Concerns	No	No	There are no known Native American religious concerns.
Migratory Birds	Yes	No	Discussed below under Wildlife.
Prime or Unique Farmlands	Yes	No	Resource is present no negative impacts due to proposed action. Under the Proposed Action, it is expected that the condition of Prime or Unique Farmland would improve over present as year-round grazing pressure by wild horses is decreased.
Riparian-Wetland Zones	Yes	Yes	Riparian-wetland zones would be avoided for trap site or holding facility locations. Under the Proposed Action, it is expected that the condition of riparian-wetland zones would improve over present

			as year-round grazing pressure by wild horses is decreased. See discussion under Vegetation, Soils and Riparian-Wetland Zones below.
Threatened or Endangered Species	No	No	No known threatened or endangered species are within the proposed gather area or would be affected by capture operations.
Water Quality, Drinking/Ground	No	No	Resource not present.
Wild and Scenic Rivers	No	No	Not present.
Wilderness and Wilderness Study Areas	Yes	No	Becky Peak Wilderness is within the area, but will have no disturbance in the wilderness area.

Table 2. Other Resources Checklist

Critical Elements	Present	Affected	Rationale
Fire Management	Yes	No	Resource is not affected by the Proposed Action or alternatives.
Forestry and Woodland	Yes	No	Resource is not affected by the Proposed Action or alternatives.
Land Use Authorizations	Yes	No	Resource is not affected by the Proposed Action or alternatives.
Livestock Management	Yes	Yes	Discussed below under Livestock.
Minerals	Yes	No	Resource is not affected by the Proposed Action or alternatives.
Paleontology	Yes	No	Resource is not affected by the Proposed Action or alternatives.
Rangeland Vegetation Resources	Yes	Yes	Discussed below under Vegetation, Soils and Riparian-Wetland Zones.
Recreation	Yes	No	Resource is not affected by the Proposed Action or alternatives.
Socioeconomics	Yes	No	Resource is not affected by the Proposed Action or alternatives.
Soils	Yes	Yes	Soil disturbances would be less than 1 acre in size and trap sites would be located in previously disturbed areas. Except for temporary disturbance at the trap sites, the resource is not affected. Refer to discussion under Vegetation, Soils, and Riparian-Wetland Zones below.
Visual Resources	Yes	No	No visual impacts would occur because the Proposed Action is temporary.
Wild Horses and Burros	Yes	Yes	Discussed under Wild Horses below.
Wildlife	Yes	Yes	Discussed under Wildlife below.

Wild Horses

Affected Environment

Wild horse population growth rates average 20-25% in the Antelope and Antelope Valley HMAs. A census flight conducted in October 2007 on these HMAs found 745 horses in the Antelope HMA and 436 horses in the Antelope Valley HMA, about 3.3 times the AML. These census flights have also provided information pertaining to: population numbers, foaling rates, distribution, and herd health.

Appropriate Management Level (AML) is defined as the number of wild horses that can be sustained within a designated HMA which achieves and maintains a thriving natural ecological balance keeping with the multiple-use management concept for the area. The AML for the Antelope and Antelope Valley HMAs were established through multiple use decisions (MUD) between 1990 and 2002 following in-

depth analysis of monitoring data collected over several years. The allotment, AML, MUD, and date of MUD are shown in Appendix III.

The AML of that portion of the Antelope Valley HMA east of Highway 93 Alternate is 38 wild horses, while the AML for the Antelope HMA is set at 324 wild horses, for a total of 362 wild horses. Due to the prolonged drought and current resource conditions, the Proposed Action includes lowering the population for the Antelope HMA to 194 animals and 23 for that portion of the Antelope Valley HMA east of Hwy 93. By removing wild horses to achieve a post-gather population of 217 animals, the population would be allowed to grow over a 4-5 year period without the need for further removals in the interim and would ensure progress towards attainment of rangeland health standards and improved individual animal and herd health over the next four to five years. Refer to Table 3 below for additional information.

Table 3. Estimated Wild Horse Populations

HMA	AML	Current Estimated Population			Estimated Post-Gather Population	
		Within the HMA	Outside the HMA	Estimated Removal No.	Within the HMA	Outside the HMA
Antelope HMA	194-324	745	20-35	543	194	0
Antelope Valley HMA	23-38	436	10-15	407	23	0

*Antelope Valley HMA AML East of ALT Hwy 93

Analysis of 2007 pre-livestock field monitoring data clearly demonstrates an excess of wild horses in the HMAs. Measurements of upland utilization on key grass species is mostly heavy to severe including livestock rested areas and winter use areas. Winterfat (*Eurotia lanata*) a key browse species exhibits heavy use by wild horses at a majority of key areas. Heavy trailing by wild horses is evident at riparian areas, and water developments. This data, together with a review of the analysis which established AML for the HMA, indicates that the current AML of wild horses is appropriate and that excess wild horses are present and require immediate removal in order to prevent their death from starvation over the winter.

On the ground monitoring conducted in September and October 2007 highlights the growing concern about limited forage available to wild horses, livestock, and wildlife due to continuing drought. Heavy to severe use of forage near available water is occurring and competition between wild horses, livestock, and wildlife for limited forage and water has increased. The livestock operators that graze within the HMAs have reduced their grazing permits from 70-100% of the allowable use due to depleted range conditions and lack of forage availability. Trailing/trampling from wild horses traveling from water to find forage is increasing; increasing areas of bare ground are also evident.

Genetic Diversity and Viability

Blood samples were collected from 95 horses during the 2001 Antelope Complex gather to develop genetic baseline data (e.g. genetic diversity, historical origins of the herd, unique markers). The samples were analyzed by a geneticist to determine the degree of heterozygosity for the herd which showed good genetic diversity. This data would be incorporated into a Herd Management Area Plans in the future. At this time, there is no evidence to indicate that the Antelope and Antelope Valley HMAs wild horses suffer from reduced genetic fitness.

Environmental Consequences

Impacts Common to Both Alternatives

The WinEquus program, developed by Dr. Steven Jenkins at the University of Nevada at Reno was designed to assist wild horse and burro specialists evaluate various management plans and possible outcomes for management of wild horses. Population modeling was completed to analyze possible differences that could occur to the wild horse populations between alternatives. Included for this analysis was assessing the Proposed Action or removal of excess wild horses without fertility control. The No Action Alternative (no removal) alternative was also modeled. One objective of the modeling was to determine if the Proposed Action would “crash” the population or cause extremely low population numbers or growth rates. Minimum population levels and growth rates were found to be within reasonable levels and adverse impacts to the population are not likely. Tabular results are displayed in detail in Appendix III.

Impacts of Alternative A – Proposed Action

Under the Proposed Action, the post-gather population of wild horses would be about 217 animals, which is the low range of the AML for the two HMAs. Reducing population size would also ensure that the remaining wild horses are healthy and vigorous, and not at risk of death or suffering from starvation due to insufficient habitat coupled with the effects of drought in 8 of the past 10 years (lack of forage and water).

Impacts to the rangeland as a result of the current overpopulation of wild horses would be reduced. Fighting among stud horses would decrease since they would protect their position at water sources less frequently; injuries and death to all age classes of animals would also be expected to reduce as competition for limited forage and water resources is decreased. As populations are managed within capacity of the habitat, bands of horses would be less likely to leave the boundaries of the HMA seeking forage and water.

The impacts associated with gathering wild horses are well documented. Gathering wild horses causes direct impacts to individual animals such as stress, fear or confusion as a result of handling associated with the gather, capture, processing, and transportation of animals. The intensity of these impacts varies by individual and is indicated by behaviors ranging from nervous agitation to physical distress. Mortality to individuals from this impact is infrequent but does occur in one half to one percent of wild horses captured in a given gather. Other impacts to individual wild horses include separation of members from individual bands of wild horses and removal of animals from the population.

Indirect impacts can occur to horses after the initial stress event, and may include increased social displacement, or increased conflict between studs. These impacts are known to occur intermittently during wild horse gather operations. Traumatic injuries may occur, and typically involve biting and/or kicking bruises, which don't break the skin. The occurrence of spontaneous abortion events among mares following capture is very rare.

Population-wide impacts to individual bands of wild horses would be minimized with this action because most of the horses caught would be removed. The remaining wild horses not captured would maintain their social structure and herd demographics (age and sex ratios). No observable effects to the remaining population associated with the gather impacts would be expected except a heightened shyness toward human contact.

Impacts of Alternative B – No Action Alternative

Under the No Action Alternative, wild horses would not be removed from the Antelope and or that portion of the Antelope Valley HMA east of Hwy 93 Alternate at this time. Individual horses as well as the herd would not be subject to any direct or indirect impacts which may result during a gather operation as described for the Proposed Action. However, the current population of 1,187 wild horses would

continue to increase at rates of 20 to 25 percent per year and would be expected to reach 1,425-1,484 animals by August 2008 (4.1 times the AML).

Because wild horses are a long-lived species with documented survival rates exceeding 92% for all age classes, predation and disease do not substantially regulate wild horse population levels. As a result, wild horse numbers would be expected to continue to increase, which in turn would continue to exceed the carrying capacity of the range. Wild horse numbers in excess of AML are already showing great impact to range condition to the extent that individual horses and herd health is placed at risk. Individual horses would be at risk of death by starvation and lack of water. Competition among wild horses for the available forage and water would increase, affecting mares and foals most severely. Social stress would increase. Fighting among stud horses would increase as they protect their position at scarce water sources. As populations continue to increase beyond the capacity of the habitat, more bands of horses would be expected to leave the boundaries of the HMA seeking forage and water. This would in turn impact range conditions and other range users (i.e. native wildlife) outside the HMA boundaries.

Noxious and Non-Native Invasive Weeds

Affected Environment

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following weed species are found within the Antelope HMA: Russian knapweed (*Acroptilon repens*), musk thistle (*Carduus nutans*), spotted knapweed (*Centaurea stoebe*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), hoary cress (*Lepidium draba*), tall whitetop (*Lepidium latifolium*), and Scotch thistle (*Onoropordum acanthium*). There is also cheatgrass (*Bromus tectorum*), halogeton (*Halogeton glomerus*), bur buttercup (*Ranunculus testiculatus*), and Russian thistle (*Salsola kali*) scattered along roads in the area. This area of the District was last surveyed for weeds in 2003. A Noxious and Invasive Weeds Risk Assessment was completed for this project and can be found in Appendix VII.

Environmental Consequences

Impacts of Alternative A – Proposed Action

Implementation of the Proposed Action would result in ground disturbance around trap sites and holding pens which could lead to an increase of weeds in the area. Although use of weed-free certified forage is a SOP for the Ely Field Office, it will not be used for this gather due to the use of the national gather contract. Use of non-certified weed-free forage could introduce new weed infestations to the area through contaminated hay.

Impacts of Alternative B -- No Action Alternative

Under the No Action Alternative, a wild horse removal would not occur at this time. As a result, the potential for localized trampling or vegetation/soil disturbance associated with the trap sites and temporary holding facilities needed to conduct a gather operation would not occur.

Over the long term, increased use by wild horses on the shallow soils typical of this region would be expected to reduce plant vigor and abundance. Over time, decreasing soil and vegetation health has potential to subject the range to invasion by non-native plant species or noxious weeds. A shift in plant composition to weedy species would result in a less vegetation available for use as forage, loss of topsoil through increased erosion, and decreased productivity. These impacts would also be seen outside the HMA, and could affect even larger geographic areas as wild horses forage further from the HMA.

Vegetation, Soils and Riparian/Wetland Areas

Affected Environment

Vegetation within the HMAs varies with elevation, soil type, and precipitation. Soils within the HMA are typical of the Great Basin, and vary with elevation. Soils range in depth and type and are typically gravelly loams and sandy loams. Along the valley bottoms, salt desert shrub species can be found. However, the more common shrub species is sagebrush. As elevation increases from valley bottom to foothills, sagebrush gives way to pinyon-juniper woodlands. At the highest elevations, mountain mahogany and mountain sagebrush dominate, with small pockets of aspen and fir trees.

As a result of the ongoing drought, plants throughout the HMA's continue to exhibit signs of severe drought stress. Very little growth has been observed for a majority of plants, both herbaceous and shrub. Areas with a high percent of plant mortality were also observed. During the current drought, while livestock numbers have decreased, wild horse numbers have increased and excessive use by wild horses has greatly impacted drought stressed vegetation.

Small riparian areas and their associated plant species occur throughout the HMA near seeps and springs. Riparian areas are currently experiencing trampling damage from the over-population of wild horses. Monitoring data collected for the HMAs highlight that utilization by wild horses is heavy in established key areas. Trampling damage by wild horses is also evident at most key areas, including upland sites.

Environmental Consequences

Impacts of Alternative A – Proposed Action

Implementation of the Proposed Action would reduce the wild horse population within the Antelope and Antelope Valley HMAs to the low range of the AML, and eliminate wild horses from outside the HMA. Impacts to vegetation with implementation of the Proposed Action could include disturbance of native vegetation immediately in and around temporary trap sites, and holding and processing facilities. Impacts could be by vehicle traffic and the hoof action of penned horses, and could be locally severe in the immediate vicinity of the corrals or holding facilities. Generally, these activity sites would be small (less than one half acre) in size. Since most trap sites and holding facilities would be re-used during recurring wild horse gather operations, any impacts would remain site-specific and isolated in nature. In addition, most trap sites or holding facilities are selected to enable easy access by transportation vehicles and logistical support equipment and would generally be adjacent to or on roads, pullouts, water haul sites, or other flat spots that were previously disturbed. By adhering to the SOPs, adverse impacts to soils would be minimized.

Removing excess wild horses would make progress towards achieving a “thriving natural ecological balance.” It would reduce stress on vegetative communities, and be in compliance with the Wild Free Roaming Horse and Burro Act, Northeastern Great Basin RAC Standards and Guidelines, and land use plan management objectives. Vegetative resources, including riparian areas, would improve with the reduced population. Vegetative species would not experience over-utilization by wild horses, which would lead to healthier, more vigorous forage plants. This would result in an increase in forage availability, productivity, cover, and density. Plant communities would become more resilient to disturbances such as wildfire, drought, and grazing.

Impacts of hoof action on the soil around unimproved springs and stream banks would be lessened, which should lead to increased stream bank stability and improved riparian habitat conditions. There would also be a reduction in hoof action on upland habitats and reduced competition for available water sources.

Impacts of Alternative B -- No Action Alternative

Under the No Action Alternative, a wild horse removal would not occur at this time. As a result, the potential for localized trampling or vegetation/soil disturbance associated with the trap sites and temporary holding facilities needed to conduct a gather operation would not occur. However, as wild horse populations continue to grow, continued heavy to excessive utilization would result in further decreases in vegetation cover and lead to increased soil erosion throughout the HMAs as well as areas outside the HMAs where wild horses are currently living.

Over the long term, increased use by wild horses on the shallow soils typical of this region would be expected to reduce plant vigor and abundance. Over time, decreasing soil and vegetation health has potential to subject the range to invasion by non-native plant species or noxious weeds. A shift in plant composition to weedy species would result in a less vegetation available for use as forage, loss of topsoil through increased erosion, and decreased productivity. These impacts would also be seen outside the HMA, and could affect even larger geographic areas as wild horses forage further from the HMA.

Wildlife, Special Status Species, and Migratory Birds

Affected Environment

Wildlife in the area includes antelope, mule deer, Rocky Mountain Elk, and other wildlife species common to the Great Basin environment. Migratory birds can be found in all habitat types located within the HMA. The migratory bird nesting season is from May 15 through July 31. No surface disturbing activity can be conducted during this time period without a nesting bird survey of the proposed project area. The sage grouse is a State of Nevada and BLM sensitive species. There are eight active known Sage Grouse leks within the HMA.

Environmental Consequences

Impacts of Alternative A – Proposed Action

There are eight known active leks in the HMA's. Trap sites would not be located on sage grouse leks. If a trap or camp site is to setup prior to July 31, a migratory bird breeding survey would be conducted prior to setup, and any areas with nesting migratory birds would be avoided. Wildlife adjacent to trap sites would be temporarily displaced during capture operations by increased activity of trap setup, helicopters and vehicle traffic. Reduction of wild horse numbers would result in reduced competition between wild horses and wildlife as soon as the gather is completed. This would result in improved habitat conditions by increasing forage availability, herbaceous cover, and quality. In addition, it would reduce competition between wild horses and wildlife for available forage and water resources. Disturbance associated with wild horses along stream bank riparian habitat and adjacent upland habitat would be reduced.

Impacts of Alternative B – No Action Alternative

Wildlife would not be temporarily displaced or disturbed under the no action alternative. There would be continued competition with wild horses for water and forage resources. This competition would increase as wild horse numbers increased annually. Wild horses are aggressive around water sources, and some wildlife species may not be able to compete. The competition for resources may lead to increased stress or dislocation of native wildlife species, or possible death of individual animals.

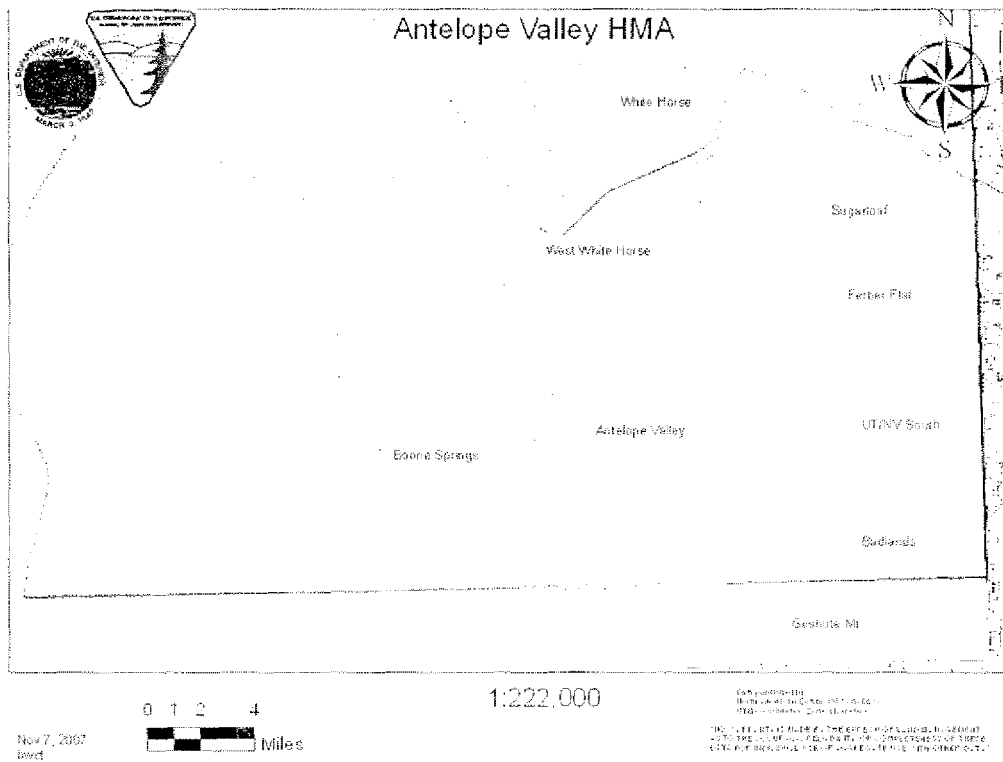
Livestock Grazing

Affected Environment

The Antelope and Antelope Valley HMAs includes portions of the Chin Creek, Becky Springs, Deep Creek, Sampson Creek, Tippet, Tippet Pass, Red Hills, Schellbourne, Lovell Peak, North Steptoe, UT/NV North, UT/NV South, Badlands/Goshute Mountain, Antelope Valley, White Horse, West White Horse, Sugar loaf, Ferber Flat and Boone Springs grazing allotments (see Maps 2 and 3 which follow). Key grazing areas in the valley bottoms show heavy resource damage due to trampling and lack

of new growth of forage due to drought situations. Due to heavy utilization in many areas livestock grazing has been reduced (see Table 4).

Map 2. Map of Grazing Allotments within the Antelope Valley HMA, Elko District



Map 3. Map of Livestock Grazing Allotments within Antelope HMA, Ely District



Table 4. Authorized Grazing Use of 2007 Grazing Season for Grazing Allotments within HMAs
 *2007 grazing year runs March 1st 2007 – February 28th 2008

Grazing Allotment	Permitted AUMs		2007 Livestock Grazing Permit Adjustment		Percent Of Permit Use	
	Cattle	Sheep	Cattle	Sheep	Cattle	Sheep
Chin Creek	3,564	3,619	571	1,777	16%	49%
Becky Springs	930	2,912	0	0	0%	0%
Deep Creek	2,584	N/A	1,760	N/A	68%	N/A
Sampson Creek	N/A	1,327	N/A	365	N/A	27%
Tippett	684	3092	300	0	44%	0%
Tippett Pass	N/A	2314	N/A	0	N/A	0%
Red Hills	N/A	2600	N/A	0	N/A	0%
Schellbourne,	683	N/A	178	N/A	26%	N/A
Lovell Peak	N/A	105	N/A	0	N/A	0%
North Steptoe	N/A	700	N/A	300	N/A	43%
Cherry Creek	5,293	N/A	2105	N/A	40%	N/A
UT/NV South	N/A	1,690	N/A	1,000	N/A	59%
Badlands/Goshute Mountain	N/A	1483	N/A	1,000	N/A	67%
Antelope Valley	2,691	N/A	500	N/A	18%	N/A
White Horse	N/A	2,154	N/A	1,508	N/A	70%
West White Horse	N/A	465	N/A	325	N/A	69%
Sugar loaf	N/A	1,979	N/A	903	N/A	45%
Ferber Flat	N/A	1,498	N/A	774	N/A	51%
Boone Springs	N/A	2,002	N/A	1,000	N/A	50%

Environmental Consequences

Impacts of Alternative A – Proposed Action

Livestock located near gather activities would be disturbed by the helicopter and the increased vehicle traffic during the gather operation. This displacement would be temporary; and the livestock would move back into the area once gather operations moved. Past experience has shown that gather operations have little impacts to grazing cattle. A reduction of wild horses to AML would result in an increase in forage availability and quality, improved habitat condition, and reduced competition between livestock and wild horses for available forage and water resources. Areas outside the HMA would also show increased forage availability and quality. Wild horses living outside the HMA would be removed, eliminating the competition between livestock and wild horses for forage. No increases in permitted livestock use would occur as a result of the Proposed Action.

Impacts of Alternative B – No Action Alternative

Livestock would not be displaced or disturbed due to gather operations under the No Action Alternative, however, there would be continued competition with wild horses for water and forage resources. As horse numbers increase, livestock grazing within the HMA may be reduced to prevent further deterioration of the range. Livestock grazing outside the HMA would continue to be impacted by wild horses that leave the HMA. This impact would spread even further as wild horses expand their range in search of forage and living space.

Cumulative Impacts

Cumulative impacts are impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The area of cumulative impact analysis is the Antelope and Antelope Valley HMAs and areas immediately adjacent to them.

According to the 1994 BLM *Guidelines For Assessing and Documenting Cumulative Impacts*, the cumulative analysis should be focused on those issues and resource values identified during scoping that are of major importance. Accordingly, the issues of major importance that are analyzed are maintaining rangeland health and proper management of wild horses within the established boundaries of an HMA.

Past Actions

Herd Areas (Has) were identified in 1971 as areas occupied by wild horses. Herd Management Areas (HMAs) were established in the late 1980s through the land use planning process as areas where wild horse management was an approved multiple-use.

AML has been adjusted to a population range of up to 324 wild horses for the Antelope HMA and 38 wild horses for the portion of Antelope Valley based on in-depth analysis of monitoring data and evaluation of habitat suitability and issuance of a Wild Horse Decision and represents the number of wild horses which can graze without damage to the range (see appendix I).

Removal of excess wild horses from the Antelope/ Antelope Valley HMA has occurred on a regular basis. However, the HMAs was gathered in 2004 to remove about 440 wild horses from the Antelope HMA and 450 horses from the Antelope Valley HMA.

Present Actions

Today the Antelope HMA has an estimated population of 745 wild horses and the Antelope Valley HMA east of the highway right of way fence has a population of 436 wild horses. Resource damage is occurring both within and outside the HMAs due to this overpopulation of wild horses.

Current BLM policy is to remove excess wild horses, prioritizing younger animals (5 years of age and less) for removal, while returning some animals to the range post-gather to maintain appropriate age and sex ratios. BLM is also working to conduct gathers in a manner which facilitates a four-year gather cycle (by managing wild horse numbers within a population range which allows the population to grow over a four year period without need for additional removals in the interim). This reduces disturbance to individual wild horses and the herd which occurs when gathers are needed more frequently.

Current policy prohibits the destruction of healthy animals that are removed or deemed to be excess. Only sick, lame, or dangerous animals can be euthanized, and destruction is no longer used as a population control method. Nor does BLM sell excess animals for slaughter; rather BLM makes every effort to place excess animals with private citizens in the continental United States who can provide the animals with a good home. A lagging adoption market and a lack of facility space has sometimes led to gather intervals that are longer than the desired four years although at the present time, BLM Nevada has achieved appropriate management levels of wild horses and burros on the range on a statewide basis and 83 of the 102 HMAs Nevada manages are currently at or below the upper limit of the AML range. As a result, Nevada will need to remove only about 2,600 animals per year to maintain AML as compared to the 5,000-6,000 animals per year which needed to be removed in the past in order to attain AML.

Public interest in the welfare and management of wild horses continues to be very high. Many different values pertaining to wild horse management form the public's perceptions. Some view wild horses as nuisances, while others strongly advocate management of wild horses as living symbols of the pioneer spirit.

An assessment for conformance with Rangeland Health Standards was completed in 2005 for the Antelope HMA and the associated livestock grazing allotments. Portions of the HMA have been monitored intensely over the past several years due to problems with drought, vegetation condition and combined use by wild horses and domestic livestock. Upon completion of these evaluations, additional adjustments in livestock season of use, livestock numbers, and grazing systems may be made through the allotment evaluation/MUD process.

The Proposed Action analyzed in this environmental assessment would result in reducing the current wild horse population size to the low range of the established AML. By reducing numbers to the AML, competition between wild horses and other users (i.e. native wildlife and domestic livestock) for limited forage and water resources would decrease over the current level. Direct improvements in vegetation, soils and riparian-wetland condition would be expected in the short term, which should benefit wildlife, wild horses and domestic livestock. Over the long-term, continuing to maintain wild horse populations within the AML range would further benefit all users and the resources they depend on for forage and water.

Under the No Action (no removal) alternative, the current overpopulation of wild horses would not be reduced to at/near the upper range of the AML because a gather would not occur at this time. Population numbers would continue to exceed AML. Competition between wild horses and native wildlife and domestic livestock for limited forage and water resources would increase, and vegetation and riparian-wetland conditions would continue to deteriorate. Over the longer-term, the health of wild horses and native wildlife would be expected to suffer as rangeland productivity further declines.

Reasonably Foreseeable Future Actions

Management of the Antelope and Antelope Valley HMAs will need to assess the Allotments to make sure the AML is consistent with land use plans.

No further amendments to the 1971 WFRHBA are currently anticipated which would result in changes in horse and burro management on the public lands. However, the WFRHBA has been amended three times since 1971 (i.e. the Act was amended in 1976, 1978, and again in 2004). Therefore, future changes to the WFRHBA are possible as a reasonably foreseeable future action.

Because Nevada has achieved AML, fewer numbers of horses or burros will need to be removed to maintain AML (only about 2,600 animals per year as compared to 5,000-6,000). As a result, the number of horses or burros available for adoption or sale is expected to more closely match demand. This should increase the likelihood that funding is available to gather HMAs every 4-5 years to maintain AML. In the absence of adequate funding to maintain AML, overpopulation of wild horses on more of Nevada's HMAs and range deterioration as a result of that overpopulation could result. This potential impact could be offset if fertility control with longer-term efficacy becomes available as a management tool, and could result in further extending the time between needed gathers or a need to remove fewer animals. Other management practices such as managing for a higher percentage of studs (60% studs to 40% mares) or managing a portion of the breeding population as geldings could also result in the need to remove fewer animals or extend the time needed between gathers.

Cumulative beneficial effects from the Proposed Action are expected, and would include continued improvement of vegetation and riparian-wetland conditions, which would in turn positively impact native wildlife, domestic livestock and wild horse populations as forage quantity and quality is improved over the current level.

Under the No Action (no removal) alternative, wild horse populations would continue to increase resulting in continuing impacts to native wildlife and vegetation and riparian-wetland areas. As populations continue to grow, increased competition between native wildlife, domestic livestock and wild horses for limited forage and water resources would occur, or alternatively domestic livestock use would need to be further reduced in order to slow the rate of range deterioration. Direct cumulative impacts of the No Action alternative coupled with impacts from past, present and reasonably foreseeable future actions would result in foregoing an opportunity to improve watershed health. As a result, the No Action Alternative, in conjunction with many of the past, present and reasonably foreseeable future actions would result in non-attainment of RMP or allotment-specific objectives and Standards for Rangeland Health and Wild Horse and Burro Populations.

Conclusion

The area affected by the Proposed Action includes the Antelope and Antelope Valley HMA. Past actions regarding the management of wild horses has resulted in the current wild horse population within the HMAs. Past wild horse management has contributed to existing resource conditions as well as wild horse herd age and sex structure within the proposed gather area.

The Proposed Action would achieve wild horse numbers near the mid-upper range of the AML and is expected to decrease competition among the users for limited forage and water resources and to result in improving vegetation and riparian-wetland conditions. Future gathers to maintain wild horse populations within the AML range should result in cumulative beneficial effects to vegetation and riparian-wetland conditions, and improvements in forage quantity and quality. Under the No Action (no removal) alternative, wild horse numbers would continue to grow, with increasing competition among the users for limited forage and water resources, and continued deterioration of vegetation and riparian-wetland

conditions. Left unchecked, wild horse numbers could increase to the extent that individual animals, including native wildlife, could suffer or die from starvation.

The combination of the past, present, and reasonably foreseeable future actions, along with implementation of the Proposed Action, should result in more stable wild horse populations, healthier rangelands, healthier wild horses, and fewer multiple-use conflicts within and adjacent to the Antelope and Antelope Valley HMAs within the short-term.

Mitigation Measures and Suggested Monitoring

Ongoing rangeland monitoring within the Antelope and Antelope Valley HMAs would continue. Periodic population census would be completed and areas outside the HMA would also be monitored to detect wild horses living outside the HMA boundary.

The Proposed Action incorporates proven standard operating procedures, which have been developed over time. These SOPs (Appendix 2) represent the “best methods” for reducing impacts associated with gathering, handling, transporting and collecting herd data. Additional mitigation measures are not warranted.

Consultation and Coordination

Public hearings are held annually on a state-wide basis regarding the use of helicopters and motorized vehicles to capture wild horses (or burros). During these meetings, the public is given the opportunity to present new information and to voice any concerns regarding the use of these methods to capture wild horses (or burros). The Nevada BLM State Office held a meeting on May 16, 2007; 2 oral comments, 8 written comments and approximately 120 e-mail comments were entered into the record for this hearing. Specific concerns included: (1) the use of helicopters and motorized vehicles is inhumane and results in injury or death to significant numbers of wild horses and burros; (2) bait and/or water trapping or removal by horseback are more humane methods of removal; (3) misconduct by gather contractors or others must be immediately corrected. One commenter commended BLM for the safe, effective, and humane use of helicopters and motorized vehicles to capture and transport wild horses and burros. Based on the number of concerns expressed with respect to the use of helicopters and motorized vehicles, BLM thoroughly reviewed the Standard Operating Procedures to assure that all necessary measures are in place to humanely capture, handle and transport Nevada’s wild horses and burros during the upcoming gather season. No changes to the SOPs were indicated based on this review.

The use of helicopters and motorized vehicles has proven to be a safe, effective and practical means for the gather and removal of excess wild horses and burros from the range. Over the past three years, of the nearly 18,000 animals BLM has gathered, mortality has averaged only one-half of one percent which is very low when handling wild animals. BLM also avoids gathering wild horses prior to or during the peak foaling season and does not conduct helicopter removals of wild horses during March 1 through June 30.

The preliminary EA was mailed to the individuals, groups and agencies listed in Appendix V for a 30-day review and comment period on November 16, 2007. The public was specifically asked to identify any additional issues or alternatives (not already identified) or any data or information BLM should consider in finalizing the EA. This E.A. is also posted on Ely Field Office web site.

List of Preparers

Ely Field Office

Ben Noyes	Wild Horses, Ely Field Office
Susie Stokke	Wild Horses, Nevada State Office
Bonnie Waggoner	Invasive, Non-Native Species

Jake Rajala
Paul Podborny
Chris Hanefeld
Jake Rajala
Elvis Wall
Brett Covlin
Lisa Gilbert

Environmental Coordinator
Migratory Birds, Special Status Species
Public Affairs
Environmental Coordination
Native American Religious Concerns/Tribal Coordination
Livestock
Archeological/ Historic/Paleontological

Elko Field Office

Bruce Thompson

Range/Wild horses, Elko Field Office

APPENDIX I STANDARD OPERATING PROCEDURES

Gathers would be conducted by contractors or agency personnel. The same procedures for gathering and handling wild horses apply whether a contractor or BLM personnel are used. The following stipulations and procedures will be followed to ensure the welfare, safety and humane treatment of the wild horses (WH) in accordance with the provisions of 43 CFR 4700.

Gathers are normally conducted for one of the following reasons:

1. Regularly scheduled gathers to obtain or maintain the Appropriate Management Level (AML).
2. Drought conditions that could cause mortality to WH due to the absence of water or forage, and where continued grazing may result in a downward trend to the vegetative communities due to plant mortality and reduced vigor and productiveness.
3. Fires that remove forage to the extent that there is inadequate forage to sustain the population or to allow recovery of native vegetation.
4. Utilization levels that reach a point where a continued increase in utilization would cause a downward trend in the plant communities and impede meeting standards for rangeland health.
5. Monitoring indicates that WH use would begin to cause a downward trend in riparian function or not permit the recovery of riparian vegetation determined to be in undesirable condition.

1. CAPTURE METHODS USED IN THE PERFORMANCE OF A GATHER-Contract Operations

1. Helicopter – Drive Trapping

Capture attempts may be accomplished by utilizing a helicopter to drive animals into a temporary trap. If this method is selected the following applies:

- a. A minimum of two saddle-horses shall be immediately available at the trap site to accomplish roping if necessary. Roping shall be done as determined by the BLM. Under no circumstances shall animals be tied down for more than one hour.
- b. The contractor shall assure that bands remain together, and that foals shall not be left behind.
- c. A domestic saddle horse(s) may be used a pilot (or “Judas”) horse to lead the wild horses into the trap site. Individual ground hazers may also be used to assist in the gather.

2. Helicopter – Roping

Capture attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If this method is selected the following applies:

- a. Under no circumstances shall animals be tied down for more than one hour.
 - b. The contractor shall assure that bands remain together, and that foals shall not be left behind.
3. Bait Trapping

Capture attempts may be accomplished by utilizing bait (feed or water) to lure animals into a temporary trap. If this method is selected the following applies:

- a. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc., that may be injurious to animals.
- b. All trigger and/or trip gate devices must be approved by the BLM prior to capture of animals.
- c. Traps shall be checked a minimum of once every 10 hours

BLM conducted Helicopter – Non-Contract Operations

1. Gather operations will be conducted in conformance with the Wild Horse and Burro Aviation Management Handbook (March 2000).
2. Two-way radio communication between the helicopter and the ground crew will be maintained at all times during the operation

C. Safety and Communications

1. The Contractor shall have the means to communicate with the BLM and all contractor personnel engaged in the capture of wild horses and burros utilizing a VHF/FM Transceiver or VHF/FM portable Two-Way radio. If communications are ineffective the government will take steps necessary to protect the welfare of the animals.
 - a. The proper operation, service and maintenance of all contractor furnished property is the responsibility of the Contractor. The BLM reserves the right to remove from service any contractor personnel or contractor furnished equipment which, in the opinion of the BLM violate contract rules, are unsafe or otherwise unsatisfactory. In this event, the Contractor will be notified in writing to furnish replacement personnel or equipment within 48 hours of notification. All such replacements must be approved in advance of operation by the BLM.
 - b. The Contractor shall obtain the necessary FCC licenses for the radio system.
 - c. All accidents occurring during the performance of any delivery order shall be immediately reported to the BLM.
2. Should the helicopter be employed, the following will apply:
 - a. The Contractor must operate in compliance with all applicable Federal, State, and local laws and regulations.

- b. Fueling operations shall not take place within 1,000 feet of the animals.

D. Trapping and Care

1. The primary concern of the contractor is the safe and humane handling of all animals captured. All capture attempts shall incorporate the following:
 - a. All trap and holding facility locations must be approved by the BLM prior to construction. The Contractor may also be required to change or move trap locations as determined by the BLM. All traps and holding facilities not located on public land must have prior written approval of the landowner.
2. The rate of movement and distance the animals travel shall not exceed limitations set by the BLM who will consider terrain, physical barriers, weather, condition of the animals and others factors.
3. 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 for horses and 60 inches for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All traps and holding facilities shall be oval or round in design.
 - b. All loading chute sides shall be a minimum of 6 feet high and shall be fully covered with plywood (without holes) or like material.
 - c. All runways shall be a minimum of 30 feet long and a minimum of 6 feet high for horses, and 5 feet high for burros, and shall be covered with plywood, burlap, plastic snow fence or like material a minimum of 1 foot to 5 feet above ground level for burros and 1 foot to 6 feet for horses. The location of the government furnished portable restraining chute to restrain, age, or provide additional care for animals shall be placed in the runway in a manner as instructed by or in concurrence with the BLM.
 - d. All crowding pens including the gates leading to the runways shall be covered with a 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 for burros and 2 feet to 6 feet for horses. Eight linear feet of this material shall be capable of being removed or let down to provide a viewing window.
 - e. All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking gates.
4. No fence modifications will be made without authorization from the COR/PI. The Contractor/BLM shall be responsible for restoration of any fence modification which he has made.
5. When dust conditions occur within or adjacent to the trap or holding facility, the Contractor/BLM shall be required to wet down the ground with water.

6. Alternate pens, within the holding facility shall be furnished by the Contractor to separate mares or jennies with small foals, sick and injured animals, and estrays from the other animals. 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. Under normal conditions, the government will require that animals be restrained for the purpose of determining an animal's age or other similar practices. In these instances, a portable restraining chute will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering requires the animals be released back into the capture area(s). In areas requiring one or more satellite traps, and where a centralized holding facility is utilized, the Contractor may be required to provide additional holding pens to segregate animals transported from remote locations so they may be returned to their traditional ranges. Either segregation or temporary marking and later segregation will be at the discretion of the BLM.
7. The Contractor shall provide animals held in the traps and/or holding facilities with a continuous supply of fresh clean water at a minimum rate 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.
8. It is the responsibility of the Contractor/BLM to provide security to prevent loss, injury or death of captured animals until delivery to final destination.
9. The Contractor/BLM shall restrain sick or injured animals if treatment is necessary. A veterinarian may be called to make a diagnosis and final determination. Destruction shall be done by the most humane method available. Authority for humane destruction of wild horses (or burros) is provided by the Wild Free-Roaming Horse and Burro Act of 1971, Section 3(b)(2)(A), 43 CFR 4730.1, BLM Manual 4730 – Destruction of Wild Horses and Burros and Disposal of Remains, and is in accordance with BLM policy as expressed in Instructional Memorandum No. 98-141.

Any captured horses that are found to have the following conditions may be humanely destroyed:

- a. The animal shows a hopeless prognosis for life.
 - b. Suffers from a chronic disease.
 - c. Requires continuous care for acute pain and suffering.
 - d. Not capable of maintaining a body ratio of one.
 - e. The animal is a danger to itself or others.
10. Animals shall be transported to final destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the BLM for unusual circumstances. Animals to be released back into the HA following gather operations may be held up to 21 days or as directed by the BLM. 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 BLM. The Contractor shall schedule shipments of animals to arrive at final destination between 7:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday and Federal holidays, unless prior approval has been obtained by the BLM. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours. Animals that are to be released back into the capture area may need to be

transported back to the original trap site. This determination will be at the discretion of the BLM.

11. The BLM will issue a Notice of Intent to Impound Unauthorized Livestock prior to all gathers. Branded or privately owned animals whose owners are known will be impounded by BLM, and if not redeemed by payment of trespass and capture fees, will be sold at public auction. If owners are not known, the private animals will be turned over to the State for Processing under Nevada estray laws.

E. 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. The Contractor shall provide the BLM with a current safety inspection (less than one year old) for all motorized equipment and tractor-trailers used to transport animals to final destination.
2. All motorized equipment, tractor-trailers, and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that captured animals are transported without undue risk or injury.
3. Only tractor-trailers or stock trailers with a covered top shall be allowed for transporting animals from trap site(s) to temporary holding facilities, and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of 6 feet 6 inches from the floor. Single deck tractor-trailers 40 feet or longer shall have two (2) partition gates providing three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing two (2) compartments within the trailer to separate the animals. Compartments in all tractor-trailers shall be of equal size plus or minus 10 percent. 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 tractor-trailers is unacceptable and shall not be allowed.
4. All tractor-trailers used to transport animals to final destination(s) shall be equipped with at least one (1) door at the rear end of the trailer which is capable of sliding either horizontally or vertically. The rear door(s) of tractor-trailers and stock trailers must be capable of opening the full width of the trailer. Panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of all trailers must be strong enough so that the animals cannot push their hooves through the side. Final approval of tractor-trailers and stock trailers used to transport animals shall be held by the BLM.
5. Floors of tractors- trailers, stock trailers, and the loading chute shall be covered and maintained with wood shavings to prevent the animals from slipping.
6. Animals to be loaded and transported in any vehicle or trailer shall be as directed by the BLM and may include limitations on numbers according to age, size, sex, temperament, and animal condition. The following minimum square feet per animal shall be allowed in all trailers:

- 11 sq. ft. per adult horse (1.4 linear ft. in an 8ft. wide trailer);
- 8 sq. ft. per adult burro (1.0 linear ft. in an 8ft. wide trailer);

6 sq. ft. per horse foal (.75 linear ft. in an 8ft. wide trailer);
4 sq. ft. per burro foal (.50 linear ft. in an 8ft wide trailer);

7. Prior to any gathering operations, the BLM will provide for a pre-capture evaluation of existing conditions in the gather areas. The evaluation will include animal condition, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with location of fences, other physical barriers, and acceptable trap locations in relation to animal distribution. The evaluation will determine the level of activity likely to cause undue stress to the animals, and whether such stress would necessitate a veterinarian be present. If it is determined that capture efforts necessitate the services of a veterinarian, one would be obtained before capture would proceed. The Contractor will be appraised of all the conditions and will be given directions regarding the capture and handling of animals to ensure their health and welfare is protected.
8. If the BLM determines that dust conditions are such that animals could be endangered during transportation, the Contractor will be instructed to adjust speed.
9. Trap sites will be located to cause as little injury and stress to the animals, and as little damage to the natural resources of the area, as possible. Sites will be located on or near existing roads. Additional trap sites may be required, as determined by the BLM, to relieve stress caused by specific conditions at the time of the gather (i.e. dust, rocky terrain, temperatures, etc.).

F. Animal Characteristics and Behavior

Releases of wild horses would be near available water. If the area is new to them, a short term adjustment period may be required while the wild horses become familiar with the new area.

G. Public Participation

It is BLM policy that the public will not be allowed to come into direct contact with WH being held in BLM facilities. Only BLM personnel, or contractors may enter the corrals or directly handle the animals. The general public may not enter the corrals or directly handle the animals at anytime or for any reason during BLM operations.

Table 2 -- Responsibility and Lines of Communication

The Contracting Officer's Representatives, Bryan Fuell and Jared Bybee, and assigned Project Inspectors from the Elko and Ely Field Offices, have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. The Assistant Field Manager for Renewable Resources and the Elko Field Manager will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, and Palomino Valley Wild Horse and Burro Center. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries will be handled through the Assistant Field Manager for Renewable Resources. This individual will be the primary contact and will coordinate the contract with the Palomino Valley Wild Horse and Burro Center to ensure animals are being transported from the capture site in a safe and humane manner and are arriving in good condition.

The contract specifications require humane treatment and care of the animals during removal operations. These specifications are designed to minimize the risk of injury and death during and after capture of the animals. The specifications will be vigorously enforced.

Should the Contractor show negligence and/or not perform according to contract stipulations, he will be issued written instructions, stop work orders, or defaulted.

Appendix II Selective Removal Criteria

Appendix II

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

August 10, 2005

In Reply Refer To:
4710 (WO 260) P
Ref: IM 2004-138
IM 2004-151

EMS TRANSMISSION 08/16/2005
Instruction Memorandum No. 2005-206
Expires: 09/30/2006

To: All Field Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Gather Policy & Selective Removal Criteria

Program Area: Wild Horse and Burro Program

Purpose: This Instruction Memorandum (IM) establishes gather policy and selective removal criteria for wild horses and burros.

A. Gather Requirements

1. Appropriate Management Level Achievement (AML)

Periodic removals will be planned and conducted to achieve and maintain AML and be consistent with AML establishment and removal decisions. Removals below AML may be warranted when a gather is being conducted as an "emergency gather" as defined in I.M. 2004-151 or where significant rationale is presented to justify a reduction below AML.

2. National Environmental Policy Act (NEPA) Analysis and Decision

A current NEPA analysis and gather plan is required. This NEPA analysis and determination to remove excess animals must include and be supported by the following elements required by case law and the Public Rangelands Improvement Act (1978): vegetative utilization and trend, actual use, climatic data and current census. Along with standard components, the NEPA analysis must also contain the following:

- a. Results of population modeling that forecast impacts to the Herd Management Area's (HMA's) population resulting from removals and fertility control treatments.
- b. The desired post-gather on-the-range population number, age structure and sex ratio for the managed population.
- c. Fertility control will be considered in all Gather Plan/NEPA documents (IM No. 2004-138) and will be addressed in the population model analysis. A "do not apply" decision will be justified in the rationale.

- d. The collection of blood samples for development of genetic baseline data.
3. Where removals are necessary to achieve or maintain thriving natural ecological balance, all decisions shall be issued full force and effect under the authority of 43 CFR § 4770.3(c).
4. All gathers that have been approved by Washington Office (WO) through the annual work plan process and that are listed on the National Gather Schedule may proceed without further approval. Changes to the gather schedule involving increased removal numbers for listed gathers, adding new gathers, or substituting gathers require approval by WO-260. Requests for such gathers will be submitted using Attachment 1 to WO-260, Reno National Program Office (NPO), for review and approval by the WO-260 Group Manager.

No WO approval is required for the removal of up to 10 nuisance animals per instance unless a national contractor conducts the removal.
5. A gather and removal report (Attachment 2) is required for each wild horse and burro gather. Partial completion reports shall be filed periodically (every 2 to 5 days) during large lengthy gathers. A final report for all gathers will be submitted to the State WH&B Lead and WO-260, NPO, within ten days of gather completion.

B. Selective Removal Requirements

The selective removal criteria described below applies to all excess wild horses removed from the range. These criteria are not applicable to wild burros.

When gathers are conducted emphasis will be placed on the removal of younger more adoptable animals. However, the long term welfare of wild horse herds is critical and it is imperative that close attention be given to the post-gather on-the-range herd sex ratio and age structure to assure a healthy sustainable population.

Animals with conditions that may prevent adoption should be released to the range if herd health will not be compromised or harmed. Example conditions are disease, congenital or genetic defects, physical defect due to previous injury, and recent but not life threatening injury.

1. Age Criteria: Wild Horses will be removed in the following priority order:

- a). **Age Class -Five Years and Younger**
Wild horses five years of age and younger should be the first priority for removal and placement into the national adoption program.
- b). **Age Class - Six to Fifteen Years Old**
Wild horses six to fifteen years of age should be removed last and only if management goals and objectives for the herd can't be achieved through the removal of younger animals.

Animals encountered during gather operations should be released if, in the opinion of the Authorized Officer, they may not tolerate the stress of transportation, preparation and holding but would survive if released. Older animals in acceptable body condition with significant tooth loss and/or excessive tooth wear should also be released. Some situations, such as removals from private land, total removals, or emergency situations require exceptions to this.

- c). **Age Class Sixteen Years and Older**
Wild horses aged sixteen years and older should not be removed from the range unless specific exceptions prevent them from being turned back and left on the range.

C. Potential Exceptions to Selective Removal Requirements

1. Nuisance animals
2. Animals outside of an HMA
3. Land use plan or activity plan identifies certain characteristics that are to be selectively managed for in a particular HMA (Examples: Spanish characteristics, Bashkir "Curly" or others).
4. Total removals required by law or land use plan decisions

5. Court ordered gathers
6. Emergency gathers (see IM 2004-151)
7. Removal of wild horses treated with fertility control PZP. Specific instructions are outlined in IM 2004-138 in regards to removal of these animals.

Timeframe: The wild horse and burro gather and selective removal requirements identified in this IM are effective immediately and will expire on September 30, 2006.

Budget Impact: Once AML is attained, it will cost approximately \$1.7 million in additional gather costs annually to implement the selective removal policy. This action, on an annual basis, will avoid removal of about 1,500 unadoptable animals (older than five years) that would cost about \$10 million to maintain in captivity over their lifetime.

This policy will achieve significant cost savings by minimizing the numbers of less adoptable animals removed prior to the achievement of AML and making the removal of older animals negligible in future years.

Background: The 1992 Strategic plan for the WH&B program defined criteria for limiting the age classes of animals removed so that only the most adoptable animals were removed. The selective removal criteria from Fiscal Years 1992 through 1995 allowed the removal of animals five years of age and younger. In 1996, because of drought conditions in many western states, the selective removal policy was changed to allow for the removal of animals nine years of age and younger. In 2002, the removal policy was modified to allow for prioritized age specific removals: 1st priority remove five years of age and younger animals, 2nd priority 10 years and older and last priority animals aged six to nine years if AML could not be achieved.

This selective removal policy provides for the long term welfare of on the range populations, emphasizes the removal of the most adoptable younger animals to maintain and achieve AML and directs that older horses less able to stand the rigors of capture, preparation, and transportation stay on the range.

Manual/Handbook Sections Affected: The gather and selective removal requirements do not change or affect any section of any manual or handbook.

Coordination: Varying policies on selective removal have been in place and coordinated with field staffs since the early 1990's. The revised policy was developed by the WO, circulated to field offices for review and comment, and presented to the National Wild Horse and Burro Advisory Board. In addition, the concept of selective removal was part of the FY 2001 Strategy to Achieve Healthy Lands and Viable Herds: The Restoration of Threatened Watersheds Initiative that was widely communicated to Congress and the general public.

Contact: Questions concerning this policy should be directed to Dean Bolstad in the Wild Horse and Burro National Program Office, at (775) 861-6611.

Signed by:
Laura Ceperley
Acting Assistant Director
Renewable Resources and Planning

Authenticated by:
Barbara J. Brown
Policy & Records Group, WO-560

2 Attachments

- 1 - Request to Gather Memo (1 p)
- 2 - Gather and Removal Report (1 p)

Appendix III
Allotment Multiple Use Decision Table

Allotment	HMA	MUD & Date	AML # Animals
Spruce	Antelope Valley, Spruce-Pequeop, & Goshute	Spruce 1/30/98	AV 110-181 S-P 57-82 G 29-50
Valley Mountain	Antelope Valley	Spruce 1/30/98	Included in Spruce Allot.
Antelope Valley	Antelope Valley	Antelope Valley 12/22/94	5-8
Boone Springs	Antelope Valley	Sheep Complex 10/25/01	14-23
Whitehorse	Antelope Valley	Sheep Complex 10/25/01	Incidental
West Whitehorse	Antelope Valley	Sheep Complex 10/25/01	Incidental
Utah Nevada South	Antelope Valley	Sheep Complex 10/25/01	4-7
Badlands	Antelope Valley	Badlands-6/18/98	Incidental
Sugarloaf	Antelope Valley	Sheep Complex 10/25/01	Incidental
Ferber Flat	Antelope Valley	Sheep Complex 10/25/01	Incidental
Cherry Creek	Antelope	Cherry Creek 7/20/01	4
Becky Springs	Antelope	Becky Springs 11/16/01	8
Chin Creek	Antelope	Chin Creek 7/16/90	152
Deep Creek	Antelope	Deep Creek 10/24/01	30
Tippett	Antelope	Tippett 7/17/90	34
Tippett Pass	Antelope	Tippett Pass 11/16/01	16
Schellbourne	Antelope	Schellbourne 3/28/01	6
Lovell Peak	Antelope	Lovell Peak 10/7/94	8
North Steptoe	Antelope	North Steptoe 12/24/92	6
Becky Creek	Antelope	Becky Creek 4/19/91	8
Sampson Creek	Antelope	Sampson Creek 7/18/90	25
Goshute Mountain	Antelope	Goshute Mountain 6/18/98	0

History of the Establishment of Wild Horse Appropriate Management Level and Livestock Grazing Management for the Antelope Wild Horse Herd Management Area

The Chin Creek Allotment Final Multiple-Use Decision (FMUD) was issued July 16, 1990. This decision established the wild horse appropriate management level (AML) at 152 wild horses (1,824 AUMs) for the Chin Creek Allotment portion of the Antelope HMA. Permitted use for cattle and sheep has been adjusted from 13,245 AUMs to the current level of 7,180 AUMs with 3,564 AUMs for cattle and 3,616 AUMs for sheep use.

The Tippett Allotment FMUD was issued July 17, 1990. This decision established the wild horse AML at 34 wild horses for the Tippett Allotment portion of the Antelope HMA. Permitted use for cattle and sheep has been adjusted from 13,615 AUMs to the current level of 8,560 AUMs with 4,068 AUMs cattle use and 4,492 AUMs sheep use.

The Sampson Creek Allotment FMUD was issued July 18, 1990. This decision established the wild horse AML at 25 wild horses (300 AUMs) for the Sampson Creek Allotment portion of the Antelope HMA. Permitted use for sheep has been adjusted from 1,592 AUMs to the current level of 1,327 AUMs.

The Becky Creek Allotment FMUD was issued April 19, 1991. This decision established the wild horse AML at 8 wild horses (96 AUMs) for the Becky Creek Allotment portion of the Antelope HMA. Permitted use for sheep has been adjusted from 1,033 AUMs to the current level of 671 AUMs.

The North Steptoe Allotment FMUD was issued December 24, 1992. This decision established the wild horse AML at 6 wild horses (77 AUMs) for the North Steptoe Allotment portion of the Antelope HMA. Permitted use for sheep is 700 AUMs.

The Lovell Peak Allotment FMUD was issued October 7, 1994. This decision established the wild horse AML at 8 wild horses (93 AUMs) for the Lovell Peak Allotment portion of the Antelope HMA. Permitted use has remained unchanged at 105 AUMs for sheep since the issuance of the FMUD.

The Goshute Mountain Allotment FMUD was issued June 18, 1998. This decision established the wild horse AML at 0 wild horses (0 AUMs) for the Goshute Mountain Allotment portion of the Antelope HMA. Permitted use for sheep remained unchanged at 465 AUMs.

The Schellbourne Allotment FMUD was issued March 28, 2001. This decision established the wild horse AML at 6 wild horses (72 AUMs) for the Schellbourne Allotment portion of the Antelope HMA. Permitted use for cattle remained at 685 AUMs.

The Cherry Creek Allotment FMUD was issued July 20, 2001. This decision established the AML at 4 wild horses (46 AUMs) for the Cherry Creek Allotment portion of the Antelope HMA. Livestock numbers were adjusted from 6,562 AUMs to the current level of 5,293 AUMs for cattle grazing.

The FMUD for the Deep Creek Allotment Portion of the Antelope Wild Horse Herd Management Area was issued October 25, 2001. This decision established the AML at 30 wild horses (360 AUMs) for the Deep Creek Allotment portion of the Antelope HMA. An adjustment to livestock use was reflected in the PMUD which was carried forward through a livestock use agreement. An "Agreement For Implementation of Changes In Livestock Grazing Use On The Deep Creek Allotment" was prepared in 2000. The purpose of the agreement was to modify the areas of use and address uneven distribution of livestock grazing on the Deep Creek Allotment. The agreement included the three permittees: Kyle Bateman, Kyle Bateman (Bates Permit), and Gail Parker. The permittees signed the agreements during March and April of 2000. The permitted use on the allotment was not adjusted and remains at 2,085 AUMs. Reed Robison was not included in the agreement because he has taken nonuse for many years.

An "Agreement for Livestock Grazing Management and Establishment of Wild Horse Appropriate Management Level for the Becky Springs Allotment" was prepared during September 2001. There are three permittees who hold term permits on the Becky Springs Allotment. They are Need More Sheep Company, Kay Lear, and David Morris. The agreement was signed by all three permittees during October 2001. The agreement does not make changes to season of use or permitted use for cattle or sheep. The current permitted use for the Becky Springs Allotment is 3,842 AUMs of which 2,399 AUMs are for sheep (Need More Sheep Company), 517 AUMs are for sheep (David Morris) and 930 AUMs are for cattle (Kay Lear). This agreement was prepared in consultation with the permittees and is an initial step toward establishing a wild horse AML. This agreement established a wild horse AML of 35 wild horses (420 AUMs) for the Becky Springs Allotment portion of the Antelope HMA.

An "Agreement for Changes in Livestock Grazing Use and Establishment of Wild Horse Appropriate Management Level for the Tippet Pass Allotment" was signed on October 11, 2001. Vidler Water Company is the current permittee. Permitted use was adjusted to 3,914 AUMs (2,646 AUMs cattle and 1,268 AUMs sheep). The remainder of the permitted use of 4,263 AUMs (3,217 AUMs cattle and 1,046 AUMs sheep) was placed in voluntary nonuse for conservation purposes for three years.

Permitted use will be established by kind of livestock for both cattle and sheep. The 8,172 AUMs permitted use on the Tippet Pass Allotment has never been allocated to sheep and cattle. Total permitted use for cattle will be established at 5,863 AUMs with 3,217 placed in voluntary nonuse. Total permitted use for sheep will be established at 2,314 AUMs with 1,046 placed in voluntary nonuse. Use areas and permitted use by use areas were also established. The period of use for the allotment was changed from yearlong to fall/winter/spring. Other livestock management practices were made to include establishment of proper utilization levels, water hauling and movement and distribution of livestock to avoid conflicts with sage grouse areas. This agreement was prepared in consultation with the permittee and is an initial step toward establishing a wild horse AML. This agreement established a wild horse AML of 16 wild horses (192 AUMs) for the Tippet Pass Allotment portion of the Antelope HMA.

Appendix IV Summary of Population Modeling of Wild Horses

Population Model Overview

WinEquus is a computer software program designed to simulate population dynamics based on various management alternatives concerning wild horses. Version 1.40 was developed by Stephen H. Jenkins of the Department of Biology, University of Nevada at Reno on April 2, 2002. For further information about the model, please contact Stephen H. Jenkins at the Department of Biology/314, University of Nevada, Reno, NV 89557.

The population model for wild horses was designed to help wild horse and burro specialists evaluate various management strategies that might be considered for a particular HMA. The model uses data on average survival probabilities and foaling rates of horses to project population growth for up to 20 years. The model accounts for year-to-year variation in these demographic parameters by using a randomization process to select survival probabilities and foaling rates for each age class from a distribution of values based on these averages. This aspect of population dynamics is called environmental stochasticity, and reflects the fact that future environmental conditions that may affect a wild horse population's demographics can not be established in advance. The stochastic approach to population modeling uses repeated trials to project a range of possible population trajectories over a period of years, which is more realistic than predicting a single specific trajectory.

Population Modeling Criteria

The following summarizes the population modeling criteria that are common for the Proposed Action and No Action:

- Starting Year: 2007
- Initial gather year: 2007
- Gather interval: minimum interval of five years (5 year run)
- Sex ratio at birth: 50% female-50% male
- Percent of the population that can be gathered: 80%
- Minimum age for long term holding facility horses: no restrictions
- Foals are included in the AML
- Simulations were run for ten years with 100 trials each

Population Modeling Results

The Tables show the projected population growth rates. 2007 population numbers are pre gather.

Table 1 growth rate no fertility control

Average Growth Rate in 10 Years

Lowest Trial	10.6
10 th Percentile	13.8
25 th Percentile	15.6
Median Trial	16.8
75 th Percentile	18.5
90 th Percentile	19.6
Highest Trial	22.4

The Tables show the projected population growth rates.

Table 2 with no gather

	Population Sizes in 11 Years*		
	Minimum	Average	Maximum
Lowest Trial	1064	2361	4142
10th Percentile	1215	2787	5276
25th Percentile	1238	2941	5764
Median Trial	1274	3209	6528
75th Percentile	1332	3458	7073
90th Percentile	1406	3718	7822
Highest Trial	1713	4645	9755

- 0 to 20+ year-old horses

Appendix V

Mailing List for EA NV 042 -08-04

Craig C Downer
Wilde Brough Humboldt Outfitters, Inc
Steve Foree NDOW
Patience O'Dowd
Wild Horse Observers Assoc
Vaugh Higbee
Kenneth Jones
Wild Horse Commission
Cathy Barcomb
Marge Prunty
RC McClymonds
Stuart Taylor
Rob Stokes
Elko County
Bobbi Royale
Wild Horse Spirit
John Neff
Tribal Chairman
Shoshone-Paiute Tribes of Duck Valley
Leona Rawley
H. Bonnie & Chuck Matton
Wild Horse Preservation League
Eureka County
Dept of Natural Resources
Horace Smith
Cottonwood Ranch
Carl Slagowski
Jack & Irene Walther
Gary Back
SRK Consulting
Scott Egbert
Egbert Livestock LLC
John Carpenter
Gale Dupree
NVWF
Rex Cleary
Resource Concepts Inc
Patricia and Lana Paul
Wade West
Robin C Lahnes
Senator Dean Rhoads
7H Ranch LLC
Ms. Karen A Sussman
Ira Renner
Harold Rother Farms Inc
Kathryn M. Cushman
Karl Lind
Honorable Harry Reid
Karen Klitz
Wesley Bowlen
Hale Bailey
Ellison Ranching Company
ATTN: Bill Hall
Martha Hoots

Jack and Terry Bowers
Theresa Monoletti
Richard Sewing
National Mustang Assoc Inc
Gary Bengochea
Nevada First Corporation
Michael Stafford
State of Nevada Clearing House
Katie Fite
Western Watersheds Project
Congressman Jim Gibbons
Public Lands Foundation
Leta Collord
Naomi Pratt
Holland and Hart, LLP
Rex Steninger
Joe Cumming
Boss Tanks, Inc
Karla Jones
Nevada Ranch Service
Kenny Merkle
Cowboy John Tours
Mori Ranches
Peter Mori
Betty Kelly
Wild Horse Spirit
 Andrea Lococo
 The Fund for Animals Inc
Von Sorenson
Dawn Lappin
Wild Horse Organized Assistance
Need More Sheep Company
Pine Valley Sheep Ranch
Chournos Inc
Sherie Goring
LW Peterson
Charles Young
H&R Livestock
Thousand Peaks Ranch
Ms. Sharon Crook
Scott Merrill
Friends of Nevada Wilderness
 Friends of Nevada Wildlife
Attn: Tom Myers
Hawkwatch International, Inc.
Sierra Club
 Sierra Club - Toiyabe Chapter
 Attn: Marjorie Sill
Nevada Outdoor Recreation Assn.
Attn: Charles Watson
 The Wilderness Society
 Attn: Sara Barth
 Sierra Club - Toiyabe Chapter
 Attn: Rose Strickland
Natural Resources Defense Council
Attn: Johanna Wald
 Wilderness Impact Research Foundation
 Attn: Grant Gerber

Red Rock Audubon Society
Attn: John E. Hiatt
Roger Scholl
Cindy McDonald
Paul Bottari
Nevada High Country Tours
Ronald P. McRobbie
Air Force Regional Environmental Office
Nevada Cattlemen's Association
Joe Guild
 Simplot Land & Cattle
Parasol Ranching LLC
Jerry Goodwin
Pelter Ranch
c/o Robert Pelter
 Jeffrey Roche
 Animal Welfare Institute
 Attn D.J. Schubert, Wildlife Biologist
Ferris & Marlene Brough
Ms Anne Charlton
Animal Rights Law Center
S I Newhouse Ctr for Law Justice
Harvey Healey
Dr. Donald A Molde
Ms. Christine Stones
Ely Shoshone Tribe
Roberta L. Moore
Great Basin National Park
Wild Horses Forever
c/o Jerry Reynoldson
Tina Nappe
Barbara Warner
Diane Nelson
Wild Horse Sanctuary
Nora & Charles Watson, Jr
Mr. Michael J. Podborny
NDOW
Mr. Michael S. Wickersham
NDOW
Mr. Mike Scott
NDOW
Elnoma Reeves
Sterling Wines
Kyle W. Bateman
Double U Livestock LLC
C/O Jim West
CL Cattle Company, LLC
C/O Chris Collis
Kitt Lear
Kay & Mary K Lear
Carol Sherman
C/O Allen Sherman
Gail Parker
Turner & Irlbeck Ran
C/O Kathy Bertrand
Herbert Stathes
Kathleen Bertrand
Henry C. Vogler

Friends of Nevada Wilderness
Charles Baun
URS Corp
Ms. Laurel Marshall
David Buhlig
Nevada Land and Resource Co
Betsy MacFarlan
ENLC
NDOW
Brad Hardenbrook
George Lea, President
Public Lands
Foundation
John McLain, Principal
Resource Concepts, Inc
USFWS, Southern Nevada Field Office
Mr. Lucas J. Phillips
Ely Ranger District
Nevada Farm Bureau Federation
Barbara Flores
Colorado Wild Horse and Burro Coalition
Steven Fulstone
Executive Director
Animal Protection Institute of America
Mr. Curtis A Baughman
NDOW
Nevada Dept of Agriculture
Ms Patricia Irwin
US Forest Service
White Pine Co Commissioners
National Wild Horse Assoc
Mr. Bob Hallock
US Fish and Wildlife Service
John Blethen
Ms. Anna M. Fritz
Mary Bergevin
Ms. Noreen Byatt
Ms. Cindy A. Seaver
Florette Laiche
Dr. Kathie Kingett
Rebecca Brickner
Phillip N Williams
Irving and Melody Boime
Linda Beck LaRoche, R.N.
Katherine Norman
Rebecca Brickner
Theresa Ziadie
Patricia Brecto
Ann Talley
Juliette Fry
Pershing County High
Student Council
Round Mountain High School
Student Council
Eldorado High School
Student Council
Irene Slater
Elaine M. Osborne

Lydia Coeven
Vivian Feagan
Joann Condellone
Mr. & Mrs. Larry Stites
Cammie M. Green
Sallie Carlson
Ms. Marilyn Evenson
Richard R. Getz Jr.
Ms. Vicki Ginoli
Cherie Newman
Margaret Barsh
Bette Mikkelson
Norman Burstein
Norman & Bonnie Salto
Carol Rutkowski
Ms. Martha Stavish
Joseph Geralamo
Patricia M.C. Hugh
Mr. Adolpho Lopez
Mr. Steven Barrows
Cheryl Fisher
Ms. Patricia Joralemon
Vicki Tri
Ms. Rhoda M. Kern
Mr. Jeff Anderson

Appendix VII
RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS
Antelope HMA Gather
White Pine County, Nevada

On November 7th, 2007 a Noxious & Invasive Weed Risk Assessment was completed for the Antelope Herd Management Area (HMA) gather in White Pine County, Nevada. The project consists of selectively remove wild horses, east of the Highway 93 corridor, from the Antelope HMA in the Ely District and the Antelope Valley HMA in the Elko District. This risk assessment only analyzes the potential impacts to noxious and invasive weeds in the Ely District.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. There are no known infestations currently at the project site, however the following weed species are found in the vicinity:

<i>Acroptilon repens</i>	Russian knapweed
<i>Carduus nutans</i>	Musk thistle
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Lepidium draba</i>	Hoary cress
<i>Lepidium latifolium</i>	Tall whitetop
<i>Onopordum acanthium</i>	Scotch thistle

There is also cheatgrass (*Bromus tectorum*), halogeton (*Halogeton glomerus*), bur buttercup (*Ranunculus testiculatus*), and Russian thistle (*Salsola kali*) scattered along roads in the area. This area of the District was last surveyed for weeds in 2003.

Factor I assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (4) at the present time. There are several noxious and invasive weed infestations which already occur within the Antelope HMA, mostly within the Antelope and Schell Mountains. Given the nature of the project (gathering by helicopter, selecting weed free capture sites, etc.) project activities should be able to be implemented without infesting new areas with noxious weeds.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as Moderate (8) at the present time. The Antelope HMA is relatively free from noxious weed infestations, especially in the flats and washes where the capture sites would most likely be established. If new weed infestations spread to the area there would be adverse effects to the surrounding native vegetation. Any increase in cheatgrass could alter the fire regime in the area.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (32). This indicates that the project can proceed as planned as long as the following measures are followed:

- Gather capture sites will be chosen in areas which are free from noxious weed infestations.
- To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes all vehicles used for the completion, maintenance, inspection, or monitoring of ground disturbing activities or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the Field Office Weed Coordinator or designated contact person.
- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for reclamation or stabilization activities, feed, bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely Field Office.
- Removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting staging area sites, etc.)

Reviewed by: _____
 Bonnie Waggoner
 Ely District Noxious & Invasive Weeds Coordinator

11/7/2007

 Date