G 12/26/01

Deer Lodge Canyon HMA

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Ely Field Office
HC 33 Box 33500 (702 No. Industrial Way)
Ely, Nevada 89301-9408
http://www.nv.blm.gov

In Reply Refer To:
4700(NV-042)

DEC 26 2001

Dear Reader:

This letter is to inform you that the Ely Field Office is planning to conduct a wild horse gather during February of 2002. The area to be gathered consists of the Wilson Creek, Deer Lodge Canyon, Miller Flat and Little Mountain Herd Management Areas (HMAs). The area is currently being managed as a complex (or single herd) due to the high amount of herd mixing and exchange of genetic material. The area is known as the Wilson Complex. A preliminary Environmental Assessment (Ely E.A. No. NV-040-02-001) and capture plan have been completed at this time.

Currently we are proposing to capture approximately 935 wild horses and remove approximately 685 wild horses from the Wilson Complex. We are currently proposing to remove 577 wild horses from the Wilson Creek HMA, 52 wild horses from the Deer Lodge Canyon HMA, 42 wild horses from the Little Mountain HMA, and 14 wild horses from the Miller Flat HMA.

Enclosed is the Wilson Complex preliminary Environmental Assessment and Capture Plan. Prior to approval of the Wilson Complex Environmental Assessment and Capture Plan, **if the interested publics have any information, data, etc. that they would like to provide, they may do so prior to January 16, 2001.** Any written comments should be sent to James Perkins, Assistant Field Manager, Renewable Resources, Ely Field Office, Bureau of Land Management, HC 33 Box 33500 Ely, NV 89301.

If you have any questions, please contact Jared Bybee, Wild Horse and Burro Specialist, Ely Field Office at (775) 289-1843 or Alan Shepherd, Supervisory Natural Resource Specialist/Wild Horse and Burro, Caliente Field Station at (775) 726-8121.

Sincerely,

William E. Dunn

for Gene A. Kolkman
Field Manager

1 Enclosure
1. Wilson Complex Preliminary Environmental Analysis and Capture Plan.

cc:

American Bashkir Curley Register
American Horse Protection Association
American Mustang and Burro Association
Ms. Joneille Anderson
Animal Protection Institute of America
Board of County Commissioners, Lincoln County
Mr. Paul C. Clifford Jr.
Ms. Catherine Barcomb, Commission for the Preservation of Wild Horses
Ms. Sharon Crook
Mr. Craig C. Downer
Ms. Barbara Flores, Colorado Wild Horse and Burro Coalition
Mr. Steven Fulstone
Ms. Karen A. Sussman, Int'l Society for the Protection of Mustangs and Burros
Ms. Diane Nelson, Wild Horse Sanctuary
Ms. Andrea Lococo, Fund for Animals Inc.
Dr. Donald A. Molde, M.D.
Mrs. June Sewing, National Mustang Association, Permittee
National Wild Horse Association
Nevada Cattlemen's Association
Mr. Steve Foree, Nevada Division of Wildlife, Elko
Nevada Division of Wildlife, Las Vegas
Mr. Mike Scott, Nevada Division of Wildlife, Panaca
Mr. Curt Baughman, Nevada Division of Wildlife, Ely
Nevada Farm Bureau Federation
Nevada Humane Society
Nevada Outdoor Recreation Association
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Nevada Woolgrowers Association
Ms. Betty Kelly, Wild Horse Spirit
Rutgers School of Law-Newark, Animal Rights Law Center
Ms. Nan Sherwood
Ms. Rose Strickland, Public Lands Committee, Sierra Club
Mr. Bob Hallock, U.S. Fish and Wildlife Service
The Humane Society of the United States
Nevada State Clearing House, Wild Horse Commission
Board of County Commissioners, White Pine County
Ms. Dawn Lappin, Wild Horse Organized Assistance
Mr. Jerry Millet, Tribal Chairman, Duckwater Shoshone Tribal Council
Ms. Debbie O'Neil, Duckwater Shoshone Tribe
Honorable Alfred Stanton, Ely Shoshone Tribe
Ms. Lorinda Sam, Ely Shoshone Tribe
Honorable Eugene Tom, Moapa Paiute Tribal Council

Mr. Milton Hooper, Goshute Business Council
Ms. Roxanne Ellingson, Walker River Paiute Tribe
Paiute Indian Tribe of Utah
Ms. Gloria Bulletts Benson, Paiute Indian Tribe of Utah
Mr. Glen Rogers, Chair, Shivwits Band
Ms. Roberta Moore
Ms. Tina Nappe
Mr. Randall Spoerlein, Save the Mustangs
White Pine Sportsmen
Mr. Henry Brackenbury, 7 J Ranch, Permittee
Mr. Wayne Lister, 8 Mile Ranch, Permittee
Mr. George Andrus, Permittee
Mr. Leon Bowler, Permittee
Mr. Matt Bulloch, Bulloch Bros., Permittee
Mr. H. Bruce Cox and Mr. Mervyn K. Cox, Permittee
Mr. Merlin Flake, Delamar Valley Cattle Co., Permittee
Mr. and Mrs. Frank Delmue, Permittee
Mr. Pete Delmue, Permittee
Mr. Roger Dieleman, Permittee
El Tejon Cattle Co., Permittee
Mr. John Mathews, Flatnose Ranch, Permittee
Mr. Carlisle Hulet, Permittee
Huntsman Ranch, LLC, Permittee
Mr. Garth Jenson, Permittee
Mr. Kenneth Lee, Permittee
Mr. Gordon Lytle, Permittee
Mr. and Mrs. Ken Lytle, Permittee
Ms. Linda Lytle, Permittee
Mr. Lewis Wendell Mathews, Permittee
Mr. Orren Nash, Permittee
Mr. E. Ray Okelberry, Permittee
Mr. Lee Pearson, Pearson Brothers, Permittee
Mr. James L. Wadsworth, James A. Wadsworth & Sons, Permittee
Mr. Thomas L. Williams and Mr. Warren Williams, Permittee

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

ELY FIELD OFFICE

WILSON CREEK COMPLEX

WILD HORSE REMOVAL PLAN AND ENVIRONMENTAL ASSESSMENT

NV/040/02/001

December 2001

Background Information

With passage of the Wild Free Roaming Horse and Burro Act of 1971 (Public Law 92-195), Congress found that: "...wild free roaming horses and burros are living symbols of the historic and pioneer spirit of the West...." In addition, the Secretary was ordered to "...manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands..." From the passage of the Act, through the present day, the Bureau of Land Management (BLM) Ely Field Office has endeavored to meet the requirements of the Act. The procedures and policies implemented to accomplish this mandate have been constantly evolving over the years.

Throughout this period, BLM experience has grown, and knowledge of the effects of current and past management on wild horses and burros has increased. For example, wild horses have been shown to be capable of 18% to 25% increases in numbers annually. This can result in a doubling of the wild horse population about every three years. At the same time, nationwide awareness and attention have grown. As these factors have come together, the emphasis of the wild horse program has shifted.

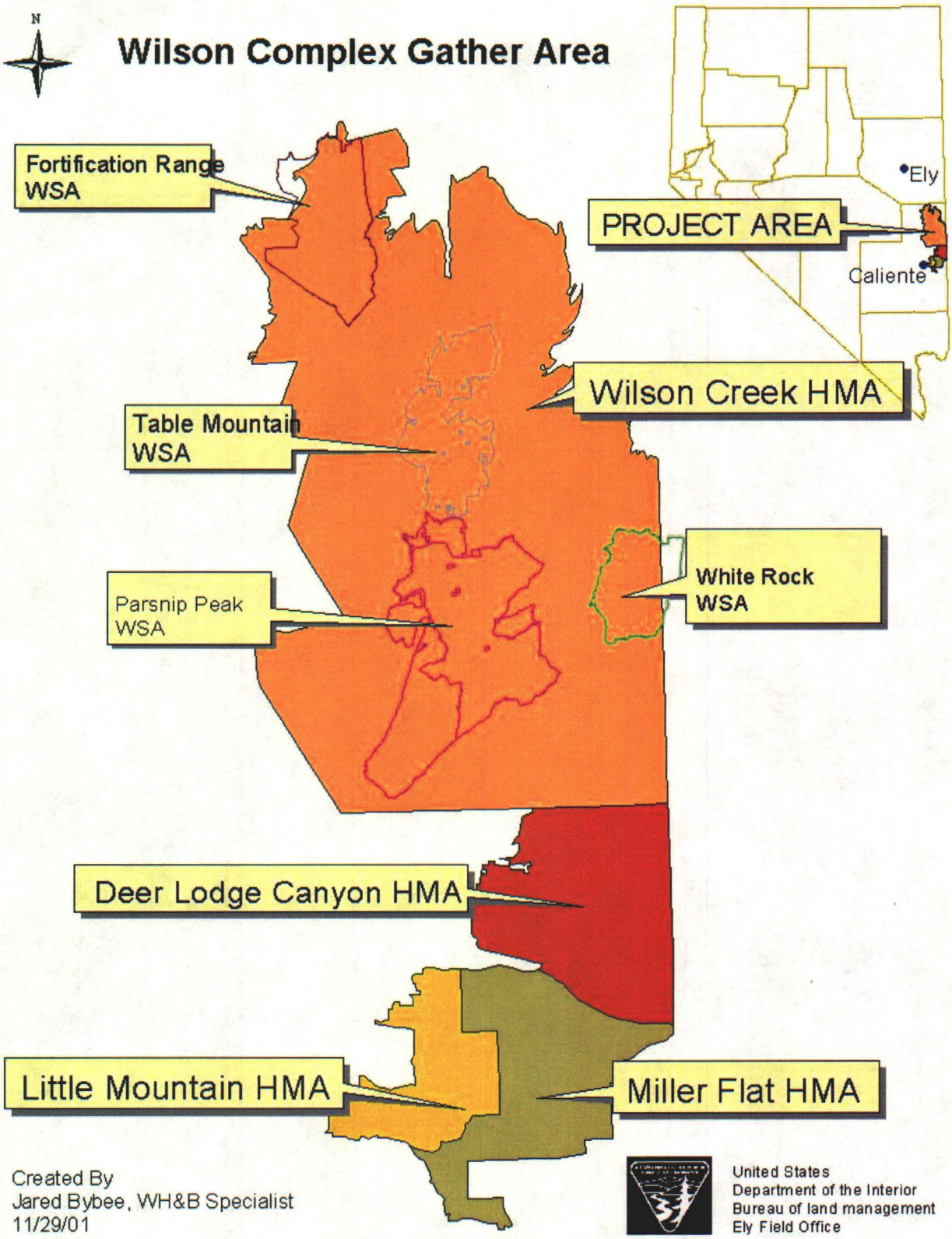
Program goals have expanded beyond simply establishing a "thriving natural ecological balance" (by setting and achieving appropriate management level (AML)) for individual herds, to achieving and maintaining viable, vigorous, and stable populations.

This document has been prepared to assess the environmental impacts of adjusting the numbers of wild horses within the Wilson Creek, Deer Lodge Canyon, Little Mountain and Miller Flat Wild Horse Herd Management Areas (HMAs) within the Ely District (refer to Map 1). Past capture, census, and distribution data collected indicate considerable movement among the horses of these HMAs. For this document the four HMAs will be referred to as the Wilson Creek Complex.

AMLs for these HMAs have been previously established through the Land Use Plan Amendment process or the Allotment Evaluation /Multiple Use Decision process based on monitoring data and following a thorough public review. Documents containing this information are available for public review at the Ely Field Office or Caliente Field Station.

Need for the Proposal

The Ely Field Office proposes to implement a program of integrated wild horse management in the Wilson Creek, Deer Lodge Canyon, Little Mountain, and Miller Flat HMAs. The emphasis of this integrated management program will be to achieve and maintain wild horse AMLs through the removal of horses in excess of AML, collect information on herd characteristics,


N
Wilson Complex Gather Area
Fortification Range WSA
Table Mountain WSA
Parsnip Peak WSA
White Rock WSA
Wilson Creek HMA
Deer Lodge Canyon HMA
Little Mountain HMA
Miller Flat HMA
PROJECT AREA
Ely
Caliente
Created By
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11/29/01
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Department of the Interior
Bureau of land management
Ely Field Office

determine herd health, maintain sustainable rangelands, maintain a healthy and viable wild horse population and make progress towards achieving Mojave-Southern Great Basin Resource Advisory Council standards for Wild Horse and Burro Management. All activities will be conducted according to a specified set of standardized operating procedures (SOPs, Appendix I).

Relationship to Planning

The proposed action is in conformance with Schell Management Framework Plan (MFP), Schell Grazing Environmental Impact Statement (EIS), and subsequent Record of Decision (ROD) dated, 1983. The proposed action is in conformance with Caliente MFP, Caliente Grazing Environmental Statement (ES), and subsequent Record of Decision (ROD) dated, 1982. The proposed action is consistent with the Lincoln County Policy Plan for Public Lands as adopted by the Board of County Commissioners of Lincoln 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 proposed action is also consistent with the "Lincoln County Elk Management Plan" dated July 2000 and the Strategic Plan for Management of Wild Horses and Burros on Public Lands, dated June 1992. It is consistent with federal, state, and local laws, regulations, and plans to the maximum extent possible.

AML was established through the Wilson Creek Allotment Evaluation/Final Multiple Use Decision (FMUD), Geyser Ranch Allotment Evaluation/FMUD, Cottonwood 00132 Evaluation/FMUD, Hamblin Valley Allotment AML FMUD, and Miller Flat HMA Evaluation/FMUD. The Allotment Agreements/FMUDs for the following allotments are currently being developed and will be finalized prior to the gather operation: McGuffy Springs, Condor Canyon, N4/N5, Mahogany Peak, Deer Lodge Canyon, Little Mountain, Panaca Cattle, Buckboard, Roadside, Peck, and White Hills.

Environmental analyses have been conducted in past years. These analyses have covered the impacts of various removal methods on wild horses in order to achieve AML, and other critical elements of the human environment. These documents include:

1) Schell Management Framework Plan/ROD
2) Caliente Management Framework Plan/ROD
3) Dry Lake/Wilson Capture Plan and Environmental Assessment (NV-040-02-22)

These allotment evaluations, FMUDs, and EAs are available in the Ely Field Office and/or Caliente Field Station for public review.

The proposed action is consistent with the Strategic Plan for Management of Wild Horses and

Burros on Public Lands, dated June 1992 and is consistent with federal, state, and local laws, regulations, and plans to the maximum extent possible.

Issues

Currently an issue has been identified whether the proposed action as described below will result in the proper management of wild horses.

Proposed Action and Alternatives

The proposed action and alternatives represent a reasonable range of alternatives based on the issues and goals identified through public scoping efforts.

Proposed Action

The proposed action is to remove all animals in excess of the established AML from the Wilson Creek Complex utilizing the current Selective Removal Strategy as developed by the National Wild Horse and Burro Program Office. The Selective Removal Strategy was developed for the 2001 fiscal year. This strategy will allow the removal of all age classes in the following priority order:

1. Age class: 5 years old and under
2. Age class: 10 years old and over
3. Age class: 6 through 9 years old

The first animals to be removed would be five years and younger, the second class of animals to be removed would be 10 years and older. Animals aged six to nine would be left in the field unless they need to be removed to achieve AML for that herd management area. Selective removal objectives target removal efforts for excess animals, based on specific segments of a given wild horse population and availability of space in Bureau processing and long term holding facilities.

The removal of excess wild horses to achieve and maintain AML is tentatively scheduled to commence on February 5, 2002 and last approximately 21 days. It is anticipated that the entire population will need to be captured and horses will be removed (see Table I).

Past selective removals have been age based. Selective removal under this alternative however, would not only be age based, but could also be based on other critical population variables as well (sex ratios, historic characteristics, genetic viability, etc.). Selective removal under this alternative would be structured to reduce effects of specific population issues. Issues which may be addressed with selective removal strategies include: correction of unusual

population variables, maintenance of herd structure and composition, and maintenance of long term herd viability.

The proposed action for the Wilson Complex would be to capture approximately 100% of the estimated 2001 population of 935 wild horses and remove 685. Data would also be collected such as animal sex, age, color, blood samples, and assess herd health (pregnancy, parasite loading, physical condition, etc.). Individual animals would be sorted as to age, sex, temperament and/or physical condition, and to return selected animals to the range. Horses determined to be in excess of AML would be transported to BLM holding facilities.

The following table shows the March 2001 wild horse census data which was used to determine current wild horse population levels and estimated removal and release numbers:

Table 1.

HMA	Census March 2001	Estimated current population	Estimated #'s to remove[1]	AML	Estimated #'s to release[1]
Wilson Creek	614	737	577	160	160
Deer Lodge Canyon	77	92	52	40	40
Little Mountain	52	62	37	25	25
Miller Flat	37	44	14	30	30
Total	780	935	680	255	255

Multiple capture sites (traps) could be used to capture wild horses from the HMAs. Whenever possible, capture sites would be located in previously disturbed areas. Every attempt would be made to place all traps outside of wilderness study areas. All capture and handling activities (including capture site selections) would be conducted in accordance with Standard Operating Procedures (SOPs) described in Appendix I. Selection of capture techniques would be based on several factors such as herd health, season of the year and environmental considerations.

Determination of which horses would be returned to the range would be based on an analysis of existing and past population characteristics and post-gather data for age, sex ratio, and colors.

In an attempt to predict population dynamics, a computer simulation was run using the wild

horse population model developed by Dr. Stephen Jenkins of the University of Nevada, Reno (Jenkins 1996). The model ran simulations to determine future population growth, future age distribution and future population size(Appendix II).

Alternative 1 - Remove Horses to 40% Below AML

Under this alternative wild horses would be removed to 40% below AML. This alternative would allow for wild horses to be maintained at or below AML for four years and have a subsequent gather on the fourth year when the population has exceeded AML. This alternative would have the same impacts to all resources except wild horses at the time of the gather. Since the entire herd would be gathered in the proposed action as well as in Alternative 1 impacts to horses would be the same at the time of the gather. However, all resources could be positively impacted for the next three years with wild horses not exceeding AML. This alternative should help maintain a "thriving natural ecological balance" for the next four years and result in a recovery of vegetative, riparian and soil resources.

Alternatives Considered But Eliminated From Detailed Analysis

1. Removal of the first 685 horses captured or a straight "gate cut" regardless of age class or sex ratio.

2. Removal of only adoptable horses ages 0-9 years old. All horses age 10 and above returned to the range regardless of age class, sex or herd structure.

These alternatives were not considered for detailed analysis since they are in violation of the current BLM removal policy, which was outlined on page 5 of this document.

No Action Alternative

This alternative consists of no direct management of wild horse or burro numbers. Wild horses would be allowed to regulate their numbers naturally through predation, disease, and forage, water and space availability. Gather operations would not be conducted.

Description of The Affected Environment

Wilson Creek Herd Management Area

The Wilson Creek HMA encompasses approximately 700,000 acres. Elevations range from 6,000 feet at the valley floors to over 9,000 feet in the White Rock Mountain Range and Mount Wilson. Vegetative types found within the Wilson Creek HMA include salt desert shrub, black sage/grass, Wyoming big sage/grass, pinyon/juniper

woodland, mountain brush, mountain mahogany, aspen, white fir, sub-alpine fir and mixed conifer. There are four wilderness study areas (WSAs) within the Wilson Creek HMA. These include the White Rock, Parsnip Peak, Table Mountain, and Fortification WSAs. The project area lies within deer, elk and antelope year-long habitat. Several sage grouse leks are located within the project area. Brood rearing habitat and wintering grounds are interspersed throughout the project area as well.

Past capture data was used to determine animal colors and approximate percentage of frequency within the herd. Horses exhibit bay (46%), sorrel (31%), brown (16%), black (5%) and gray (1%).

Deer Lodge Canyon Herd Management Area

The Deer Lodge Canyon HMA covers approximately 107,000 acres. Elevations range from 4,800 feet at the valley floors to 8,600 feet on Mahogany Peak. The vegetation within the HMA is typical of the Great Basin types with black sage/grass, Wyoming big sage/grass, forest lands (pinyon pine/juniper), mountain brush, mountain mahogany, and mixed bunch grasses. The foothills and valley bottoms are dominated by sagebrush and rabbitbrush communities with grass in the understory. The HMA contains extensive stands of pinyon pine and juniper trees. These communities have a very limited understory of sagebrush and other mountain shrubs and small amount of grass. Large areas of the sagebrush and pinyon/juniper have been burned (naturally and intentionally) and chained, and then planted with grass and forb species to increase the forage capacity for livestock as well as wild horses and wildlife. The scattered pockets of perennial grasses within the sagebrush and pinyon/juniper communities supply the majority of the forage for the horses. The project area lies within deer year long habitat.

The majority of horses exhibit bay, sorrel, brown, or roan colors with a small portions exhibiting the buckskin color pattern.

Miller Flat and Little Mountain Herd Management Areas

The Miller Flat and Little Mountain HMAs are approximately 146,000 acres in size and cover an area known locally as Miller Wash and the Little Mountain Range, for which they get their names. Elevations range from 4,500 feet at the valley floors to 6,500 feet on Dow Mountain. The vegetation within the HMA is typical of the Great Basin types with black sage/grass, Wyoming big sage/grass, forest lands (pinyon pine/juniper), mountain brush, salt desert shrub, and mixed bunch grasses. The foothills and valley bottoms are dominated by sagebrush and rabbitbrush communities with grass in the understory. The HMA contains extensive stands of pinyon pine and juniper trees.

These communities have a very limited understory of sagebrush and other mountain shrubs and small amount of grass. The scattered pockets of perennial grasses within the sagebrush and pinyon/juniper communities supply the majority of the forage for the horses. Permanent water sources consist of nine small springs found on both private and public land (primarily within the Miller Flat HMA), Clover Creek, as well as water troughs installed for livestock grazing. The resident horses within the Little Mountain HMA have to travel to the Miller Flat HMA as there are only 2 very small springs within its borders. The project area lies within deer year long habitat.

The majority of horses exhibit bay, sorrel, brown, or roan colors with a small portions exhibiting the buckskin color pattern.

Wild Horses

Wild horses are introduced species within North America and have few natural predators. Few natural controls act upon wild horse herds making them very competitive with native wildlife and other living resources managed by the Bureau. Wild horses have been shown to be capable of 18% to 25% increases in numbers annually. This can result in a doubling of the population about every 3 years.

The Wilson Complex has undergone few removals since passage of the Act. These removals have incorporated emergency gathers (straight gate cut) and the removal of 0-9 year olds per previous Bureau of Land Management policy.

Sex ratios for wild horses within the Wilson Complex are representative of other HMA's in the Ely District and the West at large. At birth, sex ratios are roughly equal. This balance shifts to favor mares throughout the younger age classes. This pattern shifts again at around 15 years of age favoring studs.

Environmental Consequences (Proposed Action & Alternatives)

The following critical elements of the human environment are not present and/or not affected by the proposed action: air quality, areas of critical environmental concern, environmental justice, prime or unique farmland, floodplains, Native American religious concerns, special status species (federally listed, proposed or candidate threatened or endangered species, and state sensitive species), migratory birds, water quality, wastes, hazardous/solid, wetlands/riparian areas, or wild and scenic rivers.

Vegetation, Soil, and Water

Proposed Action - Implementation of the proposed action would reduce the wild horse population to AML. However, horse numbers would again exceed AML by the first foaling season, which would be in the Spring of 2002. Any recovery of vegetative resources, including riparian areas would be negated as horse population could be twice AML within three years.

The proposed action would lessen the impact of hoof action on the soil around unimproved springs and stream bank riparian areas which should lead to an improvement in stream bank stability and improved riparian habitat conditions. There would also be a reduction in hoof action on upland habitat area and reduced competition for available water sources. However, within three years resource conditions could return to the present condition.

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 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 are 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 therefore generally be adjacent to or on roads, pullouts, water haul sites, or other flat spots which were previously disturbed. By adhering to the SOPs, adverse impacts to soils would be minimized.

Alternative 1 - Impacts to resources at the time of the gather would be the same as in the proposed action. Alternative 1 would reduce the wild horse population 40% below AML in the Wilson Complex which would help to promote and maintain a thriving natural ecological balance for a period of approximately four years. This would result in an increase in forage availability, vegetation density, vigor, reproduction, and productivity.

The proposed action would lessen the impact of hoof action on the soil around unimproved springs and stream bank riparian areas which should lead to an improvement in stream bank stability and improved riparian habitat conditions. There would also be a reduction in hoof action on upland habitat area and reduced competition for available water sources for four years.

No Action Alternative - The severe localized trampling associated with trap sites would not occur, however, as wild horse populations continue to grow, soil erosion would increase. Increased use throughout the complex would adversely impact soils and vegetation health, especially around the water locations. As native plant health deteriorates and plants are lost, soil erosion would increase. The shallow surface soils typical of this region can not tolerate much loss without losing productivity and thus the ability to be re-vegetated with native plants. Invasive, non-native plant species would increase and invade new areas following increased soil disturbance and reduced native plant vigor and abundance. This would lead to both a shift in plant composition towards weedy species and an irreplaceable loss of surface soil and productivity from erosion.

Wildlife

Proposed Action - The proposed action would result in reduced competition with wildlife as soon as the gather is completed. Temporary impacts during the gather could be displacement of big game and non-game mammals, but they would return eventually. This displacement would be due to the noise of the helicopter and increased traffic. These disturbances could occur during the capture period. Wild horses would exceed the established AML within six months of the completion of the gather. AML has been established based on the carrying capacity of the range to sustain herbivory by multiple species of animals. If AML is exceeded, the range would be overstocked, and a "natural thriving ecological balance" wouldn't be attained.

Alternative 1 - This alternative would have the same impacts as the proposed action during the time of the gather. However, this alternative would result in reduced competition with wildlife which would increase the quantity and quality of available forage. There would be less disturbance associated with wild horses along streambank riparian habitat and adjacent upland habitat.

No Action Alternative - Wildlife would not be displaced or disturbed under the no action alternative, however, there would be continued competition with wild horses for water and forage resources and because wild horses are very aggressive around water sources, some wildlife species may not be able to compete. The continued competition for resources may lead to increased stress and possible dislocation or death of native wildlife species.

Livestock

Proposed Action - Impacts to livestock operations at the time of the gather, due to normal gather activities would be almost non-existent since there is very little livestock

grazing within the gather area during the winter months. However, wild horses would exceed the established AML within six months of the completion of the gather. AML has been established based on the carrying capacity of the range to sustain grazing by multiple species of animals. If AML is exceeded, the range would be overstocked by summer when most livestock grazing is permitted, and a "natural thriving ecological balance" would not be attained.

Alternative 1 - Alternative 1 would have the same impacts as the proposed action at the time of the gather. However, a reduction to 40% below AML in wild horses would lead to less competition between livestock and wild horses for water and forage resources for the next four years.

No Action Alternative - Livestock would not be displaced or disturbed under the no action alternative, however, there would be continued competition with wild horses for water and forage resources. Livestock operations may be impacted as wild horse numbers continue to climb and the range becomes unable to support both wild horses and cattle.

Wilderness

Proposed Action - No impacts to wilderness values are anticipated to occur since every attempt would be made to place all trap sites and holding facilities outside wilderness study areas. Wilderness values would be positively affected by a reduction in wild horse numbers, again as a result of an improved ecological condition of the plant communities and other natural resources. However, the effects of the horse reduction would last until the next foaling season. At this time a "natural thriving ecological balance" would not be attained.

Alternative 1 - Wilderness values would be positively affected by implementation of the proposed action as it would result in an improved ecological condition of the plant communities that are aesthetically more appealing to the public than the existing situation. Under this Alternative wilderness values would be positively affected for four years by a reduction to 40% below AML in wild horse numbers, again as a result of an improved ecological condition of the plant communities and other natural resources.

No Action Alternative - No impacts due to trap construction would occur. Impacts to wilderness values would continue to occur in the form of continued degradation of vegetative and soil resources by high numbers of wild horses. To some, the sight of heavy horse trails, trampled vegetation and areas of high erosion, detract from the wilderness experience.

Noxious Weeds and Invasive Non-Native Species

Proposed Action - The proposed gather may spread existing noxious weed species. This could occur if vehicles drive through infestations and spread seed into previously weed-free areas. The contractor together with the contracting officer's representative or project inspector (COR/PI) would examine proposed trap sites and holding corrals prior to construction. If noxious weeds are found, the location of the facilities would be moved.

Alternative 1 - Impacts would be the same as the proposed action.

No Action Alternative - Under this alternative, the wild horse gather would not take place. The chance that noxious weeds would be spread by the contractor, his personnel and equipment would not exist. However, overgrazing of the present plant communities could lead to an expansion of noxious weeds.

Cultural Resources

Proposed Action - No impacts to cultural resources are anticipated to occur since all trap sites and holding facilities would be inventoried for cultural resources prior to construction. An archeologist or a District Archeological Technician (DAT) would review all proposed and previously used trap sites and facility locations to determine if these sites have had a cultural resources inventory, and/or if a new inventory is required. If cultural resources are encountered at proposed trap site(s) or holding facility location(s), those location(s) would not be utilized unless it could be modified to avoid impacts to cultural resources.

Alternative 1 - The impacts would be the same as the Proposed Action

No Action Alternative - Under this alternative, the wild horse gather would not take place and therefore, no trap sites or holding facilities would be constructed. There would be no possibility that cultural resources would be damaged as a result of the horse gather, however, high numbers of wild horses can cause damage to cultural resources due to trampling, especially around water sources, where the occurrence of cultural resources is often high.

Wild Horses

Proposed Action - Impacts to wild horses under the Proposed Action or Alternative 1 may occur to either the individual animals or the population as a whole. These impacts include: handling stress associated with the gather, capture, processing, and

transportation of animals. The intensity of these impacts vary by individual, and are indicated by behaviors ranging from nervous agitation to physical distress. Mortality of individuals from this impact is infrequent but does occur in one half to one percent of horses gathered in a given gather.

Impacts which can occur to horses after the initial stress event may include spontaneous abortions in mares, and increased social displacement and conflict in studs. These impacts are known to occur intermittently during wild horse gather operations. Traumatic injuries do not occur in most cases, however, they do occur. These injuries typically involve bite and/or kicking bruises which don't break the skin. The frequency of occurrence of these impacts among a population varies with the individual. Spontaneous abortion events among mares following capture is very rare.

Population-wide impacts can occur during or immediately following implementation of the proposed action. They include the displacement of bands during capture and the associated re-dispersal, modification of herd demographics (age and sex ratios), temporary separation of members of individual bands of horses, reestablishment of bands following releases, and the removal of animals from the population. With the exception of changes to herd demographics, direct population-wide impacts have proven, over the last 20 years, to be temporary in nature with most, if not all, impacts disappearing within hours to several days of release. No observable effects associated with these impacts would be expected within one month of release except a heightened shyness toward human contact.

Observations of animals following release have shown horses relocate themselves back to their home ranges within 12 to 24 hours of release and sometimes much faster.

The effect of removal of horses from the population would not be expected to have a significant impact on herd dynamics or population variables, as long as the selection criteria for the removal ensured a "typical" population structure was maintained. Obvious potential impacts on horse herds and populations from exercising poor selection criteria not based on herd dynamics includes modification of age or sex ratios to favor a particular class of animal.

The proposed action would mitigate the potential adverse impacts on wild horse populations by establishing a procedure for determining what selective removal criteria is warranted for the herd. This flexible procedure (Appendix I SOPs) would allow for correction of any existing discrepancies in herd demographics which could predispose a population to increased chances for catastrophic impacts. The proposed action would also establish a standard for selection which would minimize the possibility for developing negative age or sex-based selection effects to the population in the future.

Under the proposed action only enough horses would be removed in order to achieve the appropriate management level this year. This would result in the complex being over AML within 6 months. Consequences of exceeding AML are exceeding the carrying capacity of the range and risking the health of the rangelands and the health of the horse herds. Horses would be at risk of death by starvation and lack of water. Fighting among stud horses would increase as they protect their position at scarce water sources and injuries and death to foals, as well as adults would increase. As populations increase beyond the capacity of the habitat, bands of horses may leave the boundaries of the HMAs seeking forage and water, which in turn may put them at risk in new and unfamiliar country. The length of time between gathering operations will be shortened as a result of the proposed action as the population will exceed AML within six months of the initial gather and will be twice the AML within three years.

Alternative 1 - If the population in the Wilson Creek Complex is removed to 40% below AML, the above impacts are likely to occur but to fewer animals in the long term due to a reduced need to gather more wild horses more frequently. Removing wild horses to 40% below AML would result in the complex maintaining a "natural thriving ecological balance" for a period of four years. The carrying capacity of the range and risking the health of the rangelands and the health of the horse herds would be minimized. Horses would not be at risk of death by starvation and lack of water due to unpredictable weather patterns. Fighting among stud horses would decrease as they less frequently protect their position at scarce water sources and injuries and death to foals, as well as adults would decrease. As populations are allowed to increase to the capacity of the habitat, bands of horses would be less likely to leave the boundaries of the HMAs seeking forage and water, which in turn may put them at risk in new and unfamiliar country.

No Action Alternative - Under this alternative, wild horses would not be removed from the Wilson Creek Complex. The horses would not be subject to any individual direct or indirect impacts as described above as a result of a gather operation. However, allowing horse numbers to increase unchecked would have several negative consequences to the animals, including starvation, dehydration, and social stress.

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.

Implementation of the proposed action would reduce the wild horse population to AML in the Wilson Creek Complex. This would help to promote a thriving natural ecological balance, for a short time. A result in an increase in vegetation density, vigor, reproduction, productivity, and forage availability would be for a short time as the population is doubled within three years.

Adverse impacts to vegetation with implementation of the proposed action would include disturbance of native vegetation immediately in and around temporary trap sites, and holding and processing facilities. Impacts created by vehicle traffic, and hoof action of penned horses can 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 are 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 therefore generally be adjacent to or on roads, pullouts, water haul sites, or other flat spots which were previously disturbed. These common practices would minimize the cumulative effects of these impacts.

Past, present, and reasonably foreseeable activities which would be expected to contribute to the cumulative impacts of implementing the proposed action include: past wild horse selective removal gathers which may have altered the age structure and composition sex ratios of the wild horse populations, continued livestock grazing in the allotments, and increasing recreational uses. These past, present, and reasonably foreseeable activities would be expected to generate cumulative impacts to the proposed action by influencing the habitat quality, abundance, and continuity for the Wilson Creek Complex wild horses.

These impacts would be expected to be marked by changes occurring slowly over time. The Ely Field Office would continue to identify these impacts as they occur, and mitigate them as needed on a project specific basis to maintain habitat and herd quality. At the same time, horse herds would be expected to continue to adapt to these small changes to availability and distribution of critical habitat components (food, water, shelter, space, etc.). The proposed action would contribute to the cumulative impacts of future actions by maintaining the herd at AML, and establishing a process whereby biological and/or genetic issues associated with herd or habitat fragmentation would become apparent sooner and mitigating measures implemented quicker.

Mitigation Measures

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

Suggested Monitoring

Weed detection would be incorporated into normal monitoring activities. Horses released back into the Wilson Creek Complex after being captured will be monitored to ensure they return to normal patterns.

Consultation and Coordination

Through the public scoping process from the Buck and Bald Complex EA/Gather Plan and Antelope Complex EA/Gather Plan public comments have been brought forward from these documents and incorporated into the Wilson Complex EA Capture Plan.

Persons, Groups, and Agencies Consulted

American Bashkir Curley Register
American Horse Protection Association
American Mustang and Burro Association
Ms. Joneille Anderson
Animal Protection Institute of America
Board of County Commissioners, Lincoln County
Mr. Paul C. Clifford Jr.
Ms. Catherine Barcomb, Commission for the Preservation of Wild Horses
Ms. Sharon Crook
Mr. Craig C. Downer
Ms. Barbara Flores, Colorado Wild Horse and Burro Coalition
Mr. Steven Fulstone
Ms. Karen A. Sussman, Int'l Society for the Protection of Mustangs and Burros
Ms. Diane Nelson, Wild Horse Sanctuary
Ms. Andrea Lococo, Fund for Animals Inc.
Dr. Donald A. Molde, M.D.
Mrs. June Sewing, National Mustang Association, Permittee
National Wild Horse Association
Nevada Cattlemen's Association
Mr. Steve Foree, Nevada Division of Wildlife, Elko
Nevada Division of Wildlife, Las Vegas
Mr. Mike Scott, Nevada Division of Wildlife, Panaca
Mr. Curt Baughman, Nevada Division of Wildlife, Ely
Nevada Farm Bureau Federation
Nevada Humane Society
Nevada Outdoor Recreation Association
Nevada State Department of Agriculture
Nevada Woolgrowers Association

Ms. Betty Kelly, Wild Horse Spirit
Rutgers School of Law-Newark, Animal Rights Law Center
Ms. Nan Sherwood
Ms. Rose Strickland, Public Lands Committee, Sierra Club
Mr. Bob Hallock, U.S. Fish and Wildlife Service
The Humane Society of the United States
Nevada State Clearing House, Wild Horse Commission
Board of County Commissioners, White Pine County
Ms. Dawn Lappin, Wild Horse Organized Assistance
Mr. Jerry Millet, Tribal Chairman, Duckwater Shoshone Tribal Council
Ms. Debbie O'Neil, Duckwater Shoshone Tribe
Honorable Alfred Stanton, Ely Shoshone Tribe
Ms. Lorinda Sam, Ely Shoshone Tribe
Honorable Eugene Tom, Moapa Paiute Tribal Council
Mr. Milton Hooper, Goshute Business Council
Ms. Roxanne Ellingson, Walker River Paiute Tribe
Paiute Indian Tribe of Utah
Ms. Gloria Bulletts Benson, Paiute Indian Tribe of Utah
Mr. Glen Rogers, Chair, Shivwits Band
Ms. Roberta Moore
Ms. Tina Nappe
Mr. Randall Spoerlein, Save the Mustangs
White Pine Sportsmen
Mr. Henry Brackenbury, 7 J Ranch, Permittee
Mr. Wayne Lister, 8 Mile Ranch, Permittee
Mr. George Andrus, Permittee
Mr. Leon Bowler, Permittee
Mr. Matt Bulloch, Bulloch Bros., Permittee
Mr. H. Bruce Cox and Mr. Mervyn K. Cox, Permittee
Mr. Merlin Flake, Delamar Valley Cattle Co., Permittee
Mr. and Mrs. Frank Delmue, Permittee
Mr. Pete Delmue, Permittee
Mr. Roger Dieleman, Permittee
El Tejon Cattle Co., Permittee
Mr. John Mathews, Flatnose Ranch, Permittee
Mr. Carlisle Hulet, Permittee
Huntsman Ranch, LLC, Permittee
Mr. Garth Jenson, Permittee
Mr. Kenneth Lee, Permittee
Mr. Gordon Lytle, Permittee
Mr. and Mrs. Ken Lytle, Permittee

Ms. Linda Lytle, Permittee
Mr. Lewis Wendell Mathews, Permittee
Mr. Orren Nash, Permittee
Mr. E. Ray Okelberry, Permittee
Mr. Lee Pearson, Pearson Brothers, Permittee
Mr. James L. Wadsworth, James A. Wadsworth & Sons, Permittee
Mr. Thomas L. Williams and Mr. Warren Williams, Permittee

Internal District Review

Ely Field Office/Caliente Field Station

Jared Bybee	Wild Horses/preparer
Alan Shepherd	Wild Horses/Supervisory Natural Resource Specialist
Jake Rajala	Environmental Coordinator
Paul Podborny	Resource Team Lead/Wildlife Biologist/Riparian/T&E
Carolyn Sherve-Bybee	Cultural Resources
Jack Tribble	Recreation/Wilderness
Gary Medlyn	Soil/Air/Water
Shane DeForest	Noxious Weeds
Chris Mayer	Team Lead Rangeland Management Specialist
Shirley Christman-Johnson	Rangeland Management Specialist

APPENDIX I

STANDARD OPERATING PROCEDURES

Gathers would be conducted by contractors or agency personnel. The same procedures for gathering and handling wild horses and burros 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 and burros (WH&B) 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&B 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&B 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.

A. 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 as prada (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 not 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..

B. BLM Conducted Gather - 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 Federal Aviation Regulations, Part 91. Pilots provided by the Contractor shall comply with the Contractor's Federal Aviation Certificates, applicable regulations of the State in which the gather is located.

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

c. At time of delivery order completion, the contractor shall provide the BLM with a completed copy of the Service Contract Flight Hour Report.

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 facilities 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.

b. A cultural resources investigation by an archaeologist or an archaeological technician would be conducted prior to trap or holding facility construction. If cultural values are found, an alternative site would be selected

c. Prior to facility (temporary traps and holding corrals) construction, the proposed locations would be examined for the presence of noxious weeds. If it is determined that noxious weeds are present, the contractor would be instructed to locate the facilities elsewhere. The contractor and his personnel would also be instructed to avoid camping in or driving through noxious weed infestations.

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 score 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 HMA 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 tractor-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);
    6 sq. ft. per horse foal (.75 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 wild horses or burros 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.

H. Responsibility and Lines of Communication

ELY

Contracting Officer's Representatives
Jared Bybee
Alan Shepherd

Project Inspectors
Mike Perkins
Paul Podborny
Jared Reddington

The Contracting Officer's Representatives (CORs) and the project inspectors (PIs) have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. The Ely Assistant Field Manager for Renewable Resources and the Ely 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 PVC Corral offices. 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 PVC Corrals 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.

RESULTS (see below for simulation parameters)

NUMBER OF 0 TO 25 YEAR-OLDS PROCESSED IN EACH TRIAL

Trial	Total # Gathers	Horses Gathered	Horses Removed	Females Treated
1	3	1225	1225	0
2	3	1037	1037	0
3	3	1163	1163	0
4	3	1161	1161	0
5	3	1261	1261	0
6	3	1014	1014	0
7	3	1192	1192	0
8	3	861	861	0
9	3	1220	1220	0
10	3	1207	1207	0
11	3	1249	1249	0
12	3	1211	1211	0
13	3	1206	1206	0
14	3	1252	1252	0
15	3	1245	1245	0
16	3	1095	1095	0
17	3	1184	1184	0
18	3	1162	1162	0
19	3	1114	1114	0
20	3	868	868	0
21	3	1222	1222	0
22	3	1058	1058	0
23	3	1106	1106	0
24	3	1019	1019	0
25	3	1180	1180	0
26	3	1276	1276	0
27	3	1075	1075	0
28	3	1151	1151	0
29	3	1256	1256	0
30	3	1262	1262	0
MEANS	3	1151	1151	0
MINIMA	3	861	861	0
MAXIMA	3	1276	1276	0
LO LIMIT		1110	1110	0 (95% confidence limit)
HI LIMIT		1192	1192	0 (95% confidence limit)

GATHERS BY TRIAL AND YEAR FOR AGE/SEX CLASSES SHOWN ABOVE

Trial	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1	685	0	0	0	267	0	0	0	273	0	0
2	685	0	0	0	138	0	0	0	214	0	0
3	685	0	0	0	230	0	0	0	248	0	0
4	685	0	0	0	228	0	0	0	248	0	0
5	685	0	0	0	324	0	0	0	252	0	0
6	685	0	0	0	82	0	0	0	247	0	0
7	685	0	0	0	223	0	0	0	284	0	0
8	685	0	0	0	155	0	0	0	21	0	0
9	685	0	0	0	309	0	0	0	226	0	0
10	685	0	0	0	322	0	0	0	200	0	0
11	685	0	0	0	349	0	0	0	215	0	0
12	685	0	0	0	208	0	0	0	318	0	0
13	685	0	0	0	281	0	0	0	240	0	0
14	685	0	0	0	272	0	0	0	295	0	0
15	685	0	0	0	277	0	0	0	283	0	0
16	685	0	0	0	296	0	0	0	114	0	0
17	685	0	0	0	237	0	0	0	262	0	0
18	685	0	0	0	184	0	0	0	293	0	0
19	685	0	0	0	212	0	0	0	217	0	0
20	685	0	0	0	173	0	0	0	10	0	0
21	685	0	0	0	267	0	0	0	270	0	0
22	685	0	0	0	278	0	0	0	95	0	0
23	685	0	0	0	175	0	0	0	246	0	0
24	685	0	0	0	165	0	0	0	169	0	0
25	685	0	0	0	271	0	0	0	224	0	0
26	685	0	0	0	300	0	0	0	291	0	0
27	685	0	0	0	178	0	0	0	212	0	0
28	685	0	0	0	211	0	0	0	255	0	0
29	685	0	0	0	360	0	0	0	211	0	0
30	685	0	0	0	296	0	0	0	281	0	0

REMOVALS BY TRIAL AND YEAR FOR AGE/SEX CLASSES SHOWN ABOVE

Trial	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1	685	0	0	0	267	0	0	0	273	0	0
2	685	0	0	0	138	0	0	0	214	0	0
3	685	0	0	0	230	0	0	0	248	0	0
4	685	0	0	0	228	0	0	0	248	0	0
5	685	0	0	0	324	0	0	0	252	0	0
6	685	0	0	0	82	0	0	0	247	0	0
7	685	0	0	0	223	0	0	0	284	0	0
8	685	0	0	0	155	0	0	0	21	0	0
9	685	0	0	0	309	0	0	0	226	0	0
10	685	0	0	0	322	0	0	0	200	0	0
11	685	0	0	0	349	0	0	0	215	0	0
12	685	0	0	0	208	0	0	0	318	0	0
13	685	0	0	0	281	0	0	0	240	0	0
14	685	0	0	0	272	0	0	0	295	0	0
15	685	0	0	0	277	0	0	0	283	0	0
16	685	0	0	0	296	0	0	0	114	0	0
17	685	0	0	0	237	0	0	0	262	0	0
18	685	0	0	0	184	0	0	0	293	0	0
19	685	0	0	0	212	0	0	0	217	0	0
20	685	0	0	0	173	0	0	0	10	0	0
21	685	0	0	0	267	0	0	0	270	0	0
22	685	0	0	0	278	0	0	0	95	0	0
23	685	0	0	0	175	0	0	0	246	0	0
24	685	0	0	0	165	0	0	0	169	0	0
25	685	0	0	0	271	0	0	0	224	0	0
26	685	0	0	0	300	0	0	0	291	0	0
27	685	0	0	0	178	0	0	0	212	0	0
28	685	0	0	0	211	0	0	0	255	0	0
29	685	0	0	0	360	0	0	0	211	0	0
30	685	0	0	0	296	0	0	0	281	0	0

FEMALES TREATED BY TRIAL AND YEAR FOR AGE CLASSES SHOWN ABOVE

Trial	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0

gather when pop. exceeds:	250
pop. size after gather:	250
foals included in AML?	YES
percent to gather:	85
continue for fert treat?	YES
duration fertility control:	0
% efficacy fert. control:	100
trials:	30
years:	10
initial calendar year:	2002
coeff. var. foal mortality:	2
coeff. var. adult mortality:	1.7
coeff. var. foaling rate:	0.2
source of age distribution:	computed by program
prop. male @ birth	0.566

age	init. age dist. female	init. age dist. male	surv. prob. female	surv. prob. male	foal. rate	% to take female	% to take male	% to treat
0	79	102	0.917	0.917	0	100	100	100
1	61	80	0.969	0.969	0	100	100	100
2	51	66	0.951	0.951	0.364	100	100	100
3	41	54	0.951	0.951	0.44	100	100	100
4	33	43	0.951	0.951	0.841	100	100	100
5	27	35	0.951	0.951	0.841	100	100	100
6	22	29	0.951	0.951	0.841	100	100	100
7	18	23	0.951	0.951	0.841	100	100	100
8	14	19	0.951	0.951	0.841	100	100	100
9	12	15	0.951	0.951	0.841	100	100	100
10	9	12	0.951	0.951	0.841	100	100	100
11	8	10	0.951	0.951	0.793	100	100	100
12	6	8	0.951	0.951	0.793	100	100	100
13	5	7	0.951	0.951	0.793	100	100	100
14	4	5	0.951	0.951	0.793	100	100	100
15	3	4	0.951	0.951	0.793	100	100	100
16	3	4	0.951	0.951	0.793	100	100	100
17	2	3	0.951	0.951	0.793	100	100	100
18	2	2	0.951	0.951	0.793	100	100	100
19	1	2	0.951	0.951	0.793	100	100	100
20	1	2	0.951	0.951	0.793	100	100	100
21	1	1	0.951	0.951	0.793	100	100	100
22	1	1	0.951	0.951	0.793	100	100	100
23	1	1	0.951	0.951	0.793	100	100	100
24	1	1	0.951	0.951	0.793	100	100	100
25	0	0	0	0	0.793	100	100	100

APPENDIX II - ALTERNATIVE I - CAPTURE ROTATION

A	A	B	C	D	E	F	G	H	I	J	K	L
1	RESULTS (see below for simulation parameters)											
2												
3	NUMBER OF 0 TO 25 YEAR-OLDS PROCESSED IN EACH TRIAL											
4												
5		Total	Horses	Horses	Females							
6	Trial	# Gathers	Gathered	Removed	Treated							
7	1	3	1133	1133	0							
8	2	3	1116	1116	0							
9	3	2	887	887	0							
10	4	3	1188	1188	0							
11	5	3	1059	1059	0							
12	6	3	1110	1110	0							
13	7	3	1073	1073	0							
14	8	3	1111	1111	0							
15	9	3	1086	1086	0							
16	10	3	1174	1174	0							
17	11	3	1096	1096	0							
18	12	3	1152	1152	0							
19	13	3	1112	1112	0							
20	14	3	1163	1163	0							
21	15	3	1084	1084	0							
22	16	3	1060	1060	0							
23	17	3	1081	1081	0							
24	18	3	1133	1133	0							
25	19	3	1227	1227	0							
26	20	3	1103	1103	0							
27	21	3	1145	1145	0							
28	22	3	1286	1286	0							
29	23	3	1077	1077	0							
30	24	3	1153	1153	0							
31	25	3	1115	1115	0							
32	26	1	785	785	0							
33	27	3	1104	1104	0							
34	28	2	888	888	0							
35	29	3	1060	1060	0							
36	30	3	1091	1091	0							
37												
38	MEANS	2.9	1095	1095	0							
39	MINIMA	1	785	785	0							
40	MAXIMA	3	1286	1286	0							
41	LO LIMIT		1059	1059	0	(95% confidence limit)						
42	HI LIMIT		1131	1131	0	(95% confidence limit)						
43												
44	GATHERS BY TRIAL AND YEAR FOR AGE/SEX CLASSES SHOWN ABOVE											
45	Trial	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
46	1	785	0	0	0	202	0	0	0	146	0	0
47	2	785	0	0	0	156	0	0	0	175	0	0
48	3	785	0	0	0	0	0	102	0	0	0	0
49	4	785	0	0	0	192	0	0	0	211	0	0
50	5	785	0	0	0	174	0	0	0	100	0	0
51	6	785	0	0	0	178	0	0	0	147	0	0
52	7	785	0	0	0	0	134	0	0	0	154	0
53	8	785	0	0	0	188	0	0	0	138	0	0
54	9	785	0	0	0	164	0	0	0	0	137	0
55	10	785	0	0	0	213	0	0	0	176	0	0
56	11	785	0	0	0	174	0	0	0	137	0	0
57	12	785	0	0	0	186	0	0	0	181	0	0
58	13	785	0	0	0	143	0	0	0	184	0	0
59	14	785	0	0	0	140	0	0	0	238	0	0
60	15	785	0	0	0	172	0	0	0	127	0	0
61	16	785	0	0	0	145	0	0	0	130	0	0
62	17	785	0	0	0	100	0	0	0	196	0	0
63	18	785	0	0	0	155	0	0	0	193	0	0
64	19	785	0	0	0	174	0	0	0	268	0	0
65	20	785	0	0	0	171	0	0	0	147	0	0
66	21	785	0	0	0	185	0	0	0	175	0	0
67	22	785	0	0	0	228	0	0	0	273	0	0
68	23	785	0	0	0	129	0	0	0	163	0	0
69	24	785	0	0	0	171	0	0	0	197	0	0
70	25	785	0	0	0	206	0	0	0	0	124	0
71	26	785	0	0	0	0	0	0	0	0	0	0
72	27	785	0	0	0	124	0	0	0	195	0	0
73	28	785	0	0	0	0	0	0	0	0	103	0
74	29	785	0	0	0	173	0	0	0	102	0	0
75	30	785	0	0	0	182	0	0	0	124	0	0
76												
77	REMOVALS BY TRIAL AND YEAR FOR AGE/SEX CLASSES SHOWN ABOVE											
78	Trial	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
79	1	785	0	0	0	202	0	0	0	146	0	0
80	2	785	0	0	0	156	0	0	0	175	0	0
81	3	785	0	0	0	0	0	102	0	0	0	0
82	4	785	0	0	0	192	0	0	0	211	0	0
83	5	785	0	0	0	174	0	0	0	100	0	0
84	6	785	0	0	0	178	0	0	0	147	0	0
85	7	785	0	0	0	0	134	0	0	0	154	0
86	8	785	0	0	0	188	0	0	0	138	0	0
87	9	785	0	0	0	164	0	0	0	0	137	0
88	10	785	0	0	0	213	0	0	0	176	0	0
89	11	785	0	0	0	174	0	0	0	137	0	0
90	12	785	0	0	0	186	0	0	0	181	0	0
91	13	785	0	0	0	143	0	0	0	184	0	0
92	14	785	0	0	0	140	0	0	0	238	0	0
93	15	785	0	0	0	172	0	0	0	127	0	0
94	16	785	0	0	0	145	0	0	0	130	0	0
95	17	785	0	0	0	100	0	0	0	196	0	0
96	18	785	0	0	0	155	0	0	0	193	0	0
97	19	785	0	0	0	174	0	0	0	268	0	0
98	20	785	0	0	0	171	0	0	0	147	0	0
99	21	785	0	0	0	185	0	0	0	175	0	0
100	22	785	0	0	0	228	0	0	0	273	0	0
101	23	785	0	0	0	129	0	0	0	163	0	0
102	24	785	0	0	0	171	0	0	0	197	0	0
103	25	785	0	0	0	206	0	0	0	0	124	0
104	26	785	0	0	0	0	0	0	0	0	0	0
105	27	785	0	0	0	124	0	0	0	195	0	0
106	28	785	0	0	0	0	0	0	0	0	103	0
107	29	785	0	0	0	173	0	0	0	102	0	0
108	30	785	0	0	0	182	0	0	0	124	0	0
109												
110	gather when pop. exceeds:			250								
111	pop. size after gather:			150								
112	foals included in AML?			YES								
113	percent to gather:			85								
114	continue for fert treat?			YES								
115	duration fertility control:			0								
116	% efficacy fert. control:			100								
117	trials:			30								
118	years:			10								
119	initial calendar year:			2002								
120	coeff. var. foal mortality:			2								
121	coeff. var. adult mortality:			1.7								
122	coeff. var. foaling rate:			0.2								
123	source of age distribution:			computed by program								
124	prop. male @ birth			0.5								
125		init. age dist.		surv. prob.		foal. rate	% to take		% to treat			
126	age	female	male	female	male		female	male				
127	0	98	99	0.917	0.917	0	100	100	100			
128	1	75	75	0.969	0.969	0	100	100	100			
129	2	61	61	0.951	0.951	0.364	100	100	100			
130	3	48	48	0.951	0.951	0.44	100	100	100			
131	4	38	38	0.951	0.951	0.841	100	100	100			
132	5	30	30	0.951	0.951	0.841	100	100	100			
133	6	24	24	0.951	0.951	0.841	100	100	100			
134	7	19	19	0.951	0.951	0.841	100	100	100			
135	8	15	15	0.951	0.951	0.841	100	100	100			
136	9	12	12	0.951	0.951	0.841	100	100	100			
137	10	10	10	0.951	0.951	0.841	100	100	100			
138	11	8	8	0.951	0.951	0.793	100	100	100			
139	12	6	6	0.951	0.951	0.793	100	100	100			
140	13	5	5	0.951	0.951	0.793	100	100	100			
141	14	3	3	0.951	0.951	0.793	100	100	100			
142	15	2	2	0.951	0.951	0.793	100	100	100			
143	16	6	7	0.951	0.951	0.793	100	100	100			
144	17	3	3	0.951	0.951	0.793	100	100	100			
145	18	2	2	0.951	0.951	0.793	100	100	100			
146	19	1	1	0.951	0.951	0.793	100	100	100			
147	20	1	0	0.951	0.951	0.793	100	100	100			
148	21	0	0	0.951	0.951	0.793	100	100	100			
149	22	0	0	0.951	0.951	0.793	100	100	100			
150	23	0	0	0.951	0.951	0.793	100	100	100			
151	24	0	0	0.951	0.951	0.793	100	100	100			
152	25	0	0	0	0	0.793	100	100	100			

APPENDIX II - PROPOSED ACTION - INITIAL VS FINAL AGE DISTRIBUTION

A	A	B	C	D	E	F	G	H	I
1	RESULTS (see below for simulation parameters)								
2									
3									
4	INITIAL vs. FINAL AGE DISTRIBUTION								
5									
6	age	initial		most typical		least typical			
7		females	males	females	males	females	males		
8	0	79	102	29	37	34	55		
9	1	61	80	24	29	36	43		
10	2	51	66	21	26	24	25		
11	3	41	54	13	17	24	28		
12	4	33	43	13	21	0	0		
13	5	27	35	11	19	26	19		
14	6	22	29	11	9	5	16		
15	7	18	23	3	11	9	11		
16	8	14	19	10	6	5	4		
17	9	12	15	5	6	3	5		
18	10	9	12	5	2	6	4		
19	11	8	10	0	2	4	6		
20	12	6	8	0	6	2	3		
21	13	5	7	0	2	2	0		
22	14	4	5	0	2	0	2		
23	15	3	4	1	2	1	1		
24	16	3	4	2	0	0	3		
25	17	2	3	2	0	1	0		
26	18	2	2	1	0	1	0		
27	19	1	2	0	0	0	0		
28	20	1	2	0	1	0	0		
29	21	1	1	0	1	0	2		
30	22	1	1	1	1	0	1		
31	23	1	1	0	0	0	0		
32	24	1	1	0	0	0	0		
33	25	0	0	0	1	0	0		
34									
35	total	406	529	152	201	183	228		
36									
37	gather when pop. exceeds:			250					
38	pop. size after gather:			250					
39	foals included in AML?			YES					
40	percent to gather:			85					
41	continue for fert treat?			YES					
42	duration fertility control:			0					
43	% efficacy fert. control:			100					
44	trials:			30					
45	years:			10					
46	initial calendar year:			2002					
47	coeff. var. foal mortality:			2					
48	coeff. var. adult mortality:			1.7					
49	coeff. var. foaling rate:			0.2					
50	source of age distribution:			computed by program					
51	prop. male @ birth			0.566					
52		init. age dist.		surv. prob.		foal. rate	% to take		% to treat
53	age	female	male	female	male		female	male	
54	0	79	102	0.917	0.917	0	100	100	100
55	1	61	80	0.969	0.969	0	100	100	100
56	2	51	66	0.951	0.951	0.364	100	100	100
57	3	41	54	0.951	0.951	0.44	100	100	100
58	4	33	43	0.951	0.951	0.841	100	100	100
59	5	27	35	0.951	0.951	0.841	100	100	100
60	6	22	29	0.951	0.951	0.841	100	100	100
61	7	18	23	0.951	0.951	0.841	100	100	100
62	8	14	19	0.951	0.951	0.841	100	100	100
63	9	12	15	0.951	0.951	0.841	100	100	100
64	10	9	12	0.951	0.951	0.841	100	100	100
65	11	8	10	0.951	0.951	0.793	100	100	100
66	12	6	8	0.951	0.951	0.793	100	100	100
67	13	5	7	0.951	0.951	0.793	100	100	100
68	14	4	5	0.951	0.951	0.793	100	100	100
69	15	3	4	0.951	0.951	0.793	100	100	100
70	16	3	4	0.951	0.951	0.793	100	100	100
71	17	2	3	0.951	0.951	0.793	100	100	100
72	18	2	2	0.951	0.951	0.793	100	100	100
73	19	1	2	0.951	0.951	0.793	100	100	100
74	20	1	2	0.951	0.951	0.793	100	100	100
75	21	1	1	0.951	0.951	0.793	100	100	100
76	22	1	1	0.951	0.951	0.793	100	100	100
77	23	1	1	0.951	0.951	0.793	100	100	100
78	24	1	1	0.951	0.951	0.793	100	100	100
79	25	0	0	0	0	0.793	100	100	100

APPENDIX II - ALTERNATIVE I- INITIAL VS FINAL AGE DISTRIBUTION

A	A	B	C	D	E	F	G	H	I
1	RESULTS (see below for simulation parameters)								
2									
3									
4	INITIAL vs. FINAL AGE DISTRIBUTION								
5									
6	age	initial		most typical		least typical			
7		females	males	females	males	females	males		
8	0	98	99	20	18	6	8		
9	1	75	75	18	17	2	3		
10	2	61	61	13	17	2	1		
11	3	48	48	10	12	1	3		
12	4	38	38	5	5	5	1		
13	5	30	30	8	9	0	2		
14	6	24	24	7	7	1	0		
15	7	19	19	5	6	1	1		
16	8	15	15	3	2	1	0		
17	9	12	12	3	6	1	0		
18	10	10	10	2	4	0	0		
19	11	8	8	2	2	2	2		
20	12	6	6	1	3	0	0		
21	13	5	5	1	2	0	0		
22	14	3	3	3	0	0	0		
23	15	2	2	0	0	0	0		
24	16	6	7	1	0	0	0		
25	17	3	3	0	0	0	0		
26	18	2	2	0	0	0	0		
27	19	1	1	1	1	0	0		
28	20	1	0	0	0	0	0		
29	21	0	0	0	0	0	0		
30	22	0	0	0	1	0	0		
31	23	0	0	0	0	0	0		
32	24	0	0	0	0	0	0		
33	25	0	0	0	0	0	0		
34									
35	total	467	468	103	112	22	21		
36									
37	gather when pop. exceeds:			250					
38	pop. size after gather:			150					
39	foals included in AML?			YES					
40	percent to gather:			85					
41	continue for fert treat?			YES					
42	duration fertility control:			0					
43	% efficacy fert. control:			100					
44	trials:			30					
45	years:			10					
46	initial calendar year:			2002					
47	coeff. var. foal mortality:			2					
48	coeff. var. adult mortality:			1.7					
49	coeff. var. foaling rate:			0.2					
50	source of age distribution:			computed by program					
51	prop. male @ birth			0.5					
52		init. age dist.		surv. prob.		foal. rate	% to take		% to treat
53	age	female	male	female	male		female	male	
54	0	98	99	0.917	0.917	0	100	100	100
55	1	75	75	0.969	0.969	0	100	100	100
56	2	61	61	0.951	0.951	0.364	100	100	100
57	3	48	48	0.951	0.951	0.44	100	100	100
58	4	38	38	0.951	0.951	0.841	100	100	100
59	5	30	30	0.951	0.951	0.841	100	100	100
60	6	24	24	0.951	0.951	0.841	100	100	100
61	7	19	19	0.951	0.951	0.841	100	100	100
62	8	15	15	0.951	0.951	0.841	100	100	100
63	9	12	12	0.951	0.951	0.841	100	100	100
64	10	10	10	0.951	0.951	0.841	100	100	100
65	11	8	8	0.951	0.951	0.793	100	100	100
66	12	6	6	0.951	0.951	0.793	100	100	100
67	13	5	5	0.951	0.951	0.793	100	100	100
68	14	3	3	0.951	0.951	0.793	100	100	100
69	15	2	2	0.951	0.951	0.793	100	100	100
70	16	6	7	0.951	0.951	0.793	100	100	100
71	17	3	3	0.951	0.951	0.793	100	100	100
72	18	2	2	0.951	0.951	0.793	100	100	100
73	19	1	1	0.951	0.951	0.793	100	100	100
74	20	1	0	0.951	0.951	0.793	100	100	100
75	21	0	0	0.951	0.951	0.793	100	100	100
76	22	0	0	0.951	0.951	0.793	100	100	100
77	23	0	0	0.951	0.951	0.793	100	100	100
78	24	0	0	0.951	0.951	0.793	100	100	100
79	25	0	0	0	0	0.793	100	100	100

APPENDIX II - PROPOSED ACTION - GROWTH RATE POST CAPTURE

A	A	B	C	D	E	F	G	H	I
1	RESULTS (see below for simulation parameters)								
2									
3		Average							
4	Trial	Growth Rate (%)							
5	1	19.424							
6	2	14.898							
7	3	17.287							
8	4	18.586							
9	5	20.045							
10	6	12.518							
11	7	20.309							
12	8	11.185							
13	9	19.268							
14	10	19.283							
15	11	15.789							
16	12	19.611							
17	13	18.138							
18	14	20.449							
19	15	20.532							
20	16	15.494							
21	17	16.992							
22	18	18.823							
23	19	18.843							
24	20	9.246							
25	21	19.837							
26	22	14.389							
27	23	17.941							
28	24	14.466							
29	25	18.45							
30	26	21.127							
31	27	15.711							
32	28	18.257							
33	29	16.136							
34	30	21.473							
35	MEAN	17.483							
36	MINIMUM	9.246							
37	MAXIMUM	21.473							
38	LO LIMIT	16.368	(95% confidence limit)						
39	HI LIMIT	18.599	(95% confidence limit)						
40									
41	gather when pop. exceeds:			250					
42	pop. size after gather:			250					
43	foals included in AML?			YES					
44	percent to gather:			85					
45	continue for fert treat?			YES					
46	duration fertility control:			0					
47	% efficacy fert. control:			100					
48	trials:			30					
49	years:			10					
50	initial calendar year:			2002					
51	coeff. var. foal mortality:			2					
52	coeff. var. adult mortality:			1.7					
53	coeff. var. foaling rate:			0.2					
54	source of age distribution:			computed by program					
55	prop. male @ birth			0.566					
56		init. age dist.		surv. prob.		foal. rate	% to take		% to treat
57	age	female	male	female	male		female	male	
58	0	79	102	0.917	0.917	0	100	100	100
59	1	61	80	0.969	0.969	0	100	100	100
60	2	51	66	0.951	0.951	0.364	100	100	100
61	3	41	54	0.951	0.951	0.44	100	100	100
62	4	33	43	0.951	0.951	0.841	100	100	100
63	5	27	35	0.951	0.951	0.841	100	100	100
64	6	22	29	0.951	0.951	0.841	100	100	100
65	7	18	23	0.951	0.951	0.841	100	100	100
66	8	14	19	0.951	0.951	0.841	100	100	100
67	9	12	15	0.951	0.951	0.841	100	100	100
68	10	9	12	0.951	0.951	0.841	100	100	100
69	11	8	10	0.951	0.951	0.793	100	100	100
70	12	6	8	0.951	0.951	0.793	100	100	100
71	13	5	7	0.951	0.951	0.793	100	100	100
72	14	4	5	0.951	0.951	0.793	100	100	100
73	15	3	4	0.951	0.951	0.793	100	100	100
74	16	3	4	0.951	0.951	0.793	100	100	100
75	17	2	3	0.951	0.951	0.793	100	100	100
76	18	2	2	0.951	0.951	0.793	100	100	100
77	19	1	2	0.951	0.951	0.793	100	100	100
78	20	1	2	0.951	0.951	0.793	100	100	100
79	21	1	1	0.951	0.951	0.793	100	100	100
80	22	1	1	0.951	0.951	0.793	100	100	100
81	23	1	1	0.951	0.951	0.793	100	100	100
82	24	1	1	0.951	0.951	0.793	100	100	100
83	25	0	0	0	0	0.793	100	100	100

APPENDIX II - ALTERNATIVE I - GROWTH RATE POST CAPTURE

A	A	B	C	D	E	F	G	H	I
1	RESULTS (see below for simulation parameters)								
2									
3		Average							
4	Trial	Growth Rate (%)							
5	1	21.812							
6	2	20.275							
7	3	12.657							
8	4	22.848							
9	5	17.778							
10	6	19.457							
11	7	12.327							
12	8	20.83							
13	9	17.128							
14	10	23.267							
15	11	19.853							
16	12	21.741							
17	13	21.051							
18	14	22.27							
19	15	19.621							
20	16	18.965							
21	17	18.16							
22	18	20.773							
23	19	23.03							
24	20	18.046							
25	21	22.297							
26	22	28.495							
27	23	16.824							
28	24	22.889							
29	25	16.253							
30	26	-11.745							
31	27	20.477							
32	28	3.789							
33	29	16.624							
34	30	20.324							
35	MEAN	18.271							
36	MINIMUM	-11.745							
37	MAXIMUM	28.495							
38	LO LIMIT	15.604	(95% confidence limit)						
39	HI LIMIT	20.937	(95% confidence limit)						
40									
41	gather when pop. exceeds:			250					
42	pop. size after gather:			150					
43	foals included in AML?			YES					
44	percent to gather:			85					
45	continue for fert treat?			YES					
46	duration fertility control:			0					
47	% efficacy fert. control:			100					
48	trials:			30					
49	years:			10					
50	initial calendar year:			2002					
51	coeff. var. foal mortality:			2					
52	coeff. var. adult mortality:			1.7					
53	coeff. var. foaling rate:			0.2					
54	source of age distribution:			computed by program					
55	prop. male @ birth			0.5					
56		init. age dist.		surv. prob.		foal. rate	% to take		% to treat
57	age	female	male	female	male		female	male	
58	0	98	99	0.917	0.917	0	100	100	100
59	1	75	75	0.969	0.969	0	100	100	100
60	2	61	61	0.951	0.951	0.364	100	100	100
61	3	48	48	0.951	0.951	0.44	100	100	100
62	4	38	38	0.951	0.951	0.841	100	100	100
63	5	30	30	0.951	0.951	0.841	100	100	100
64	6	24	24	0.951	0.951	0.841	100	100	100
65	7	19	19	0.951	0.951	0.841	100	100	100
66	8	15	15	0.951	0.951	0.841	100	100	100
67	9	12	12	0.951	0.951	0.841	100	100	100
68	10	10	10	0.951	0.951	0.841	100	100	100
69	11	8	8	0.951	0.951	0.793	100	100	100
70	12	6	6	0.951	0.951	0.793	100	100	100
71	13	5	5	0.951	0.951	0.793	100	100	100
72	14	3	3	0.951	0.951	0.793	100	100	100
73	15	2	2	0.951	0.951	0.793	100	100	100
74	16	6	7	0.951	0.951	0.793	100	100	100
75	17	3	3	0.951	0.951	0.793	100	100	100
76	18	2	2	0.951	0.951	0.793	100	100	100
77	19	1	1	0.951	0.951	0.793	100	100	100
78	20	1	0	0.951	0.951	0.793	100	100	100
79	21	0	0	0.951	0.951	0.793	100	100	100
80	22	0	0	0.951	0.951	0.793	100	100	100
81	23	0	0	0.951	0.951	0.793	100	100	100
82	24	0	0	0.951	0.951	0.793	100	100	100
83	25	0	0	0	0	0.793	100	100	100

APPENDIX II -PROPOSED ACTION - SEX RATIO POST GATHER

RESULTS (see below for simulation parameters)

SEX RATIO OF 0 TO 25 YEAR-OLDS (proportion of mares)

95% confidence bounds

year	mean	low limit	high limit	minimum	maximum	trial 1	trial 2	trial 3	trial 4	trial 5	trial 6	trial 7	trial 8	trial 9	trial 10	trial 11	trial 12	trial 13	trial 14	trial 15	trial 16	trial 17	trial 18	trial 19	trial 20	trial 21	trial 22	trial 23	trial 24	trial 25	trial 26
	trial 27	trial 28	trial 29	trial 30																											
2002	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
2003	0.429	0.419	0.439	0.379	0.486	0.41	0.438	0.401	0.454	0.475	0.409	0.379	0.433	0.477	0.467	0.434	0.396	0.43	0.455	0.446	0.426	0.446	0.407	0.401	0.393	0.431	0.405	0.39	0.411	0.454	0.418
2004	0.427	0.416	0.437	0.384	0.487	0.41	0.428	0.388	0.444	0.466	0.384	0.394	0.441	0.487	0.449	0.443	0.389	0.422	0.465	0.438	0.416	0.429	0.414	0.392	0.392	0.454	0.406	0.41	0.41	0.446	0.408
2005	0.425	0.415	0.435	0.376	0.48	0.409	0.435	0.384	0.429	0.466	0.391	0.411	0.425	0.477	0.461	0.423	0.396	0.416	0.448	0.441	0.414	0.421	0.376	0.398	0.402	0.457	0.408	0.415	0.393	0.44	0.417
2006	0.424	0.416	0.432	0.38	0.465	0.41	0.415	0.392	0.431	0.458	0.38	0.408	0.425	0.465	0.453	0.426	0.404	0.416	0.443	0.433	0.414	0.421	0.41	0.403	0.421	0.46	0.411	0.433	0.383	0.43	0.427
2007	0.429	0.419	0.44	0.364	0.476	0.417	0.395	0.416	0.412	0.451	0.418	0.441	0.46	0.476	0.467	0.428	0.412	0.438	0.443	0.46	0.364	0.441	0.385	0.449	0.416	0.45	0.381	0.406	0.391	0.439	0.438
2008	0.432	0.422	0.442	0.378	0.471	0.424	0.4	0.409	0.412	0.438	0.406	0.441	0.462	0.462	0.471	0.408	0.412	0.437	0.423	0.463	0.378	0.439	0.406	0.456	0.434	0.462	0.399	0.431	0.383	0.45	0.447
2009	0.431	0.421	0.441	0.376	0.472	0.416	0.376	0.409	0.396	0.408	0.4	0.435	0.468	0.455	0.457	0.411	0.405	0.447	0.421	0.472	0.383	0.446	0.401	0.451	0.429	0.469	0.403	0.445	0.428	0.455	0.449
2010	0.429	0.42	0.438	0.384	0.473	0.417	0.384	0.414	0.404	0.428	0.394	0.421	0.469	0.454	0.444	0.422	0.408	0.431	0.413	0.473	0.385	0.424	0.411	0.448	0.423	0.46	0.417	0.44	0.415	0.458	0.434
2011	0.439	0.429	0.448	0.393	0.495	0.445	0.395	0.423	0.435	0.446	0.413	0.435	0.462	0.417	0.426	0.44	0.428	0.489	0.426	0.475	0.393	0.459	0.414	0.446	0.429	0.495	0.411	0.431	0.451	0.426	0.444
2012	0.438	0.43	0.445	0.405	0.496	0.449	0.405	0.429	0.429	0.421	0.435	0.42	0.445	0.433	0.435	0.436	0.425	0.478	0.431	0.458	0.407	0.458	0.441	0.442	0.43	0.496	0.407	0.435	0.435	0.424	0.437

gather when pop. exceeds:	250
pop. size after gather:	250
foals included in AML?	YES
percent to gather:	85
continue for fert treat?	YES
duration fertility control:	0
% efficacy fert. control:	100
trials:	30
years:	10
initial calendar year:	2002
coeff. var. foal mortality:	2
coeff. var. adult mortality:	1.7
coeff. var. foaling rate:	0.2
source of age distribution:	computed by program
prop. male @ birth	0.566

age	init. age dist. female	init. age dist. male	surv. prob. female	surv. prob. male	foal. rate	% to take female	% to take male	% to treat
0	79	102	0.917	0.917	0	100	100	100
1	61	80	0.969	0.969	0	100	100	100
2	51	66	0.951	0.951	0.364	100	100	100
3	41	54	0.951	0.951	0.44	100	100	100
4	33	43	0.951	0.951	0.841	100	100	100
5	27	35	0.951	0.951	0.841	100	100	100
6	22	29	0.951	0.951	0.841	100	100	100
7	18	23	0.951	0.951	0.841	100	100	100
8	14	19	0.951	0.951	0.841	100	100	100
9	12	15	0.951	0.951	0.841	100	100	100
10	9	12	0.951	0.951	0.841	100	100	100
11	8	10	0.951	0.951	0.793	100	100	100
12	6	8	0.951	0.951	0.793	100	100	100
13	5	7	0.951	0.951	0.793	100	100	100
14	4	5	0.951	0.951	0.793	100	100	100
15	3	4	0.951	0.951	0.793	100	100	100
16	3	4	0.951	0.951	0.793	100	100	100
17	2	3	0.951	0.951	0.793	100	100	100
18	2	2	0.951	0.951	0.793	100	100	100
19	1	2	0.951	0.951	0.793	100	100	100
20	1	2	0.951	0.951	0.793	100	100	100
21	1	1	0.951	0.951	0.793	100	100	100
22	1	1	0.951	0.951	0.793	100	100	100
23	1	1	0.951	0.951	0.793	100	100	100
24	1	1	0.951	0.951	0.793	100	100	100
25	0	0	0	0	0.793	100	100	100

APPENDIX II - ALTERNATIVE I - SEX RATIO POST GATHER

A	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	RESULTS (see below for simulation parameters)																																			
2																																				
3																																				
4	SEX RATIO OF 0 TO 25 YEAR-OLDS (proportion of mares)																																			
5			95% confidence bounds																																		
6	year	mean	low limit	high limit	minimum	maximum	trial 1	trial 2	trial 3	trial 4	trial 5	trial 6	trial 7	trial 8	trial 9	trial 10	trial 11	trial 12	trial 13	trial 14	trial 15	trial 16	trial 17	trial 18	trial 19	trial 20	trial 21	trial 22	trial 23	trial 24	trial 25	trial 26					
7		trial 27	trial 28	trial 29	trial 30																																
8	2002	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499	0.499
9	2003	0.493	0.479	0.507	0.43	0.571	0.439	0.484	0.467	0.486	0.52	0.55	0.471	0.514	0.473	0.505	0.524	0.449	0.478	0.474	0.445	0.522	0.511	0.43	0.483	0.46	0.468	0.543	0.486	0.487	0.552	0.5	0.482	0.571	0.456	0.558
10	2004	0.501	0.488	0.514	0.442	0.571	0.442	0.495	0.471	0.507	0.551	0.517	0.505	0.532	0.488	0.512	0.531	0.474	0.474	0.489	0.469	0.526	0.503	0.459	0.493	0.456	0.459	0.569	0.49	0.478	0.511	0.571	0.481	0.567	0.466	0.536
11	2005	0.501	0.49	0.511	0.446	0.569	0.471	0.494	0.469	0.506	0.523	0.516	0.5	0.502	0.506	0.516	0.524	0.507	0.477	0.523	0.472	0.535	0.522	0.487	0.525	0.446	0.475	0.569	0.462	0.486	0.503	0.5	0.477	0.542	0.455	0.532
12	2006	0.497	0.486	0.509	0.449	0.583	0.463	0.497	0.473	0.491	0.519	0.491	0.502	0.491	0.481	0.518	0.534	0.5	0.481	0.503	0.491	0.522	0.492	0.466	0.509	0.449	0.475	0.579	0.47	0.483	0.506	0.583	0.478	0.5	0.452	0.524
13	2007	0.492	0.476	0.508	0.419	0.618	0.453	0.471	0.485	0.479	0.51	0.419	0.5	0.48	0.432	0.495	0.497	0.514	0.511	0.482	0.475	0.497	0.467	0.487	0.61	0.469	0.514	0.618	0.444	0.523	0.486	0.5	0.487	0.464	0.445	0.537
14	2008	0.495	0.479	0.512	0.419	0.6	0.429	0.486	0.5	0.494	0.503	0.44	0.478	0.498	0.442	0.488	0.481	0.536	0.504	0.494	0.446	0.478	0.464	0.484	0.562	0.467	0.514	0.591	0.47	0.564	0.518	0.6	0.504	0.496	0.419	0.514
15	2009	0.493	0.48	0.505	0.432	0.565	0.432	0.489	0.497	0.477	0.521	0.449	0.489	0.506	0.433	0.525	0.494	0.521	0.489	0.506	0.453	0.469	0.485	0.488	0.542	0.473	0.493	0.55	0.508	0.534	0.512	0.565	0.493	0.473	0.438	0.482
16	2010	0.498	0.487	0.508	0.438	0.577	0.463	0.48	0.491	0.499	0.508	0.438	0.493	0.517	0.469	0.521	0.523	0.498	0.509	0.495	0.462	0.493	0.512	0.499	0.548	0.478	0.508	0.537	0.492	0.524	0.489	0.577	0.484	0.472	0.476	0.474
17	2011	0.503	0.492	0.514	0.419	0.554	0.508	0.481	0.52	0.505	0.486	0.462	0.487	0.485	0.495	0.51	0.547	0.533	0.543	0.463	0.419	0.514	0.525	0.486	0.516	0.5	0.537	0.554	0.508	0.497	0.493	0.533	0.519	0.458	0.494	0.508
18	2012	0.507	0.496	0.517	0.436	0.561	0.515	0.479	0.524	0.514	0.486	0.488	0.48	0.478	0.505	0.515	0.55	0.521	0.549	0.469	0.436	0.534	0.531	0.493	0.561	0.5	0.534	0.529	0.481	0.508	0.468	0.512	0.5	0.519	0.508	0.508
19																																				
20	gather when pop. exceeds:			250																																
21	pop. size after gather:			150																																
22	foals included in AML?			YES																																
23	percent to gather:			85																																
24	continue for fert treat?			YES																																
25	duration fertility control:			0																																
26	% efficacy fert. control:			100																																
27	trials:			30																																
28	years:			10																																
29	initial calendar year:			2002																																
30	coeff. var. foal mortality:			2																																
31	coeff. var. adult mortality:			1.7																																
32	coeff. var. foaling rate:			0.2																																
33	source of age distribution:			computed by program																																
34	prop. male @ birth			0.5																																
35		init. age dist.		surv. prob.		foal. rate	% to take		% to treat																												
36	age	female	male	female	male		female	male																													
37	0	98	99	0.917	0.917	0	100	100	100																											
38	1	75	75	0.969	0.969	0	100	100	100																											
39	2	61	61	0.951	0.951	0.364	100	100	100																											
40	3	48	48	0.951	0.951	0.44	100	100	100																											
41	4	38	38	0.951	0.951	0.841	100	100	100																											
42	5	30	30	0.951	0.951	0.841	100	100	100																											
43	6	24	24	0.951	0.951	0.841	100	100	100																											
44	7	19	19	0.951	0.951	0.841	100	100	100																											
45	8	15	15	0.951	0.951	0.841	100	100	100																											
46	9	12	12	0.951	0.951	0.841	100	100	100																											
47	10	10	10	0.951	0.951	0.841	100	100	100																											
48	11	8	8	0.951	0.951	0.793	100	100	100																											
49	12	6	6	0.951	0.951	0.793	100	100	100																											
50	13	5	5	0.951	0.951	0.793	100	100	100																											
51	14	3	3	0.951	0.951	0.793	100	100	100																											
52	15	2	2	0.951	0.951	0.793	100	100	100																											
53	16	6	7	0.951	0.951	0.793	100	100	100																											
54	17	3	3	0.951	0.951	0.793	100	100	100																											
55	18	2	2	0.951	0.951	0.793	100	100	100																											
56	19	1	1	0.951	0.951	0.793	100	100	100																											
57	20	1	0	0.951	0.951	0.793	100	100	100																											
58	21	0	0	0.951	0.951	0.793	100	100	100																											
59	22	0	0	0.951	0.951	0.793	100	100	100																											
60	23	0	0	0.951	0.951	0.793	100	100	100																											
61	24	0	0	0.951	0.951	0.793	100	100	100																											
62	25	0	0	0	0	0.793	100	100	100																											

APPENDIX II - PROPOSED ACTION - AGE DISTRIBUTION

RESULTS (see below for simulation parameters)

NUMBER OF 0 TO 25 YEAR-OLDS OF BOTH SEXES

95% confidence bounds

year	mean	low limit	high limit	minimum	maximum	trial 1	trial 2	trial 3	trial 4	trial 5	trial 6	trial 7	trial 8	trial 9	trial 10	trial 11	trial 12	trial 13	trial 14	trial 15	trial 16	trial 17	trial 18	trial 19	trial 20	trial 21	trial 22	trial 23	trial 24	trial 25	trial 26	trial 27	trial 28	trial 29	trial 30
2002	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935
2003	295	289	302	253	327	310	281	287	284	318	264	277	312	285	302	327	293	286	314	303	289	285	273	279	285	318	301	315	253	324	304	293	290	296	315
2004	348	334	361	237	406	366	285	348	360	393	237	335	345	382	356	406	352	372	402	352	365	301	324	314	342	366	350	317	307	388	360	337	315	379	373
2005	413	394	433	271	500	447	361	385	417	500	271	394	334	455	447	485	396	447	473	454	447	394	364	392	423	440	448	371	346	439	429	349	370	477	449
2006	492	467	517	332	610	517	388	480	478	574	332	473	405	559	572	599	458	531	522	527	546	487	434	462	423	517	528	425	415	521	550	428	461	610	546
2007	289	280	299	197	314	300	304	305	308	295	299	299	313	267	304	276	308	299	287	276	236	306	312	296	197	307	278	293	289	314	306	266	251	300	290
2008	346	333	358	226	379	375	355	374	379	331	360	370	370	357	350	343	379	334	366	335	270	378	372	366	226	366	293	346	334	367	347	320	323	342	344
2009	398	376	420	218	469	445	441	403	455	407	430	432	218	382	361	375	469	430	425	441	300	439	451	397	261	431	305	411	402	451	428	373	394	361	424
2010	474	446	502	260	568	523	464	498	498	502	497	534	271	476	450	465	568	490	545	533	364	512	543	467	260	520	345	496	419	474	541	462	505	461	531
2011	297	290	303	264	325	290	304	284	310	269	264	322	325	288	298	302	292	266	305	305	295	307	314	312	289	303	287	313	295	277	322	295	301	264	297
2012	345	331	359	243	411	341	348	322	361	337	308	393	411	342	354	243	360	318	353	360	332	301	372	407	344	355	329	386	347	344	357	340	359	248	377

gather when pop. exceeds:	250
pop. size after gather:	250
foals included in AML?	YES
percent to gather:	85
continue for fert treat?	YES
duration fertility control:	0
% efficacy fert. control:	100
trials:	30
years:	10
initial calendar year:	2002
coeff. var. foal mortality:	2
coeff. var. adult mortality:	1.7
coeff. var. foaling rate:	0.2
source of age distribution:	computed by program
prop. male @ birth	0.566

	init. age dist.		surv. prob.			% to take		% to treat
age	female	male	female	male	foal. rate	female	male	
0	79	102	0.917	0.917	0	100	100	100
1	61	80	0.969	0.969	0	100	100	100
2	51	66	0.951	0.951	0.364	100	100	100
3	41	54	0.951	0.951	0.44	100	100	100
4	33	43	0.951	0.951	0.841	100	100	100
5	27	35	0.951	0.951	0.841	100	100	100
6	22	29	0.951	0.951	0.841	100	100	100
7	18	23	0.951	0.951	0.841	100	100	100
8	14	19	0.951	0.951	0.841	100	100	100
9	12	15	0.951	0.951	0.841	100	100	100
10	9	12	0.951	0.951	0.841	100	100	100
11	8	10	0.951	0.951	0.793	100	100	100
12	6	8	0.951	0.951	0.793	100	100	100
13	5	7	0.951	0.951	0.793	100	100	100
14	4	5	0.951	0.951	0.793	100	100	100
15	3	4	0.951	0.951	0.793	100	100	100
16	3	4	0.951	0.951	0.793	100	100	100
17	2	3	0.951	0.951	0.793	100	100	100
18	2	2	0.951	0.951	0.793	100	100	100
19	1	2	0.951	0.951	0.793	100	100	100
20	1	2	0.951	0.951	0.793	100	100	100
21	1	1	0.951	0.951	0.793	100	100	100
22	1	1	0.951	0.951	0.793	100	100	100
23	1	1	0.951	0.951	0.793	100	100	100
24	1	1	0.951	0.951	0.793	100	100	100
25	0	0	0	0	0.793	100	100	100

APPENDIX II -ALTERNATIVE I - AGE DISTRIBUTION

RESULTS (see below for simulation parameters)

NUMBER OF 0 TO 25 YEAR-OLDS OF BOTH SEXES

year	mean	95% confidence bounds low limit	high limit	minimum	maximum	trial 1	trial 2	trial 3	trial 4	trial 5	trial 6	trial 7	trial 8	trial 9	trial 10	trial 11	trial 12	trial 13	trial 14	trial 15	trial 16	trial 17	trial 18	trial 19	trial 20	trial 21	trial 22	trial 23	trial 24	trial 25	trial 26	trial 27	trial 28	trial 29	trial 30
2002	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935
2003	169	154	185	6	208	189	186	105	181	196	180	172	173	186	182	164	178	201	154	182	178	184	179	178	163	186	184	175	193	183	6	197	56	182	208
2004	202	182	222	7	278	226	212	121	205	214	230	186	216	244	217	211	209	196	184	213	228	155	218	225	215	222	246	194	247	231	7	233	60	223	278
2005	245	221	270	10	299	272	263	145	257	264	275	192	285	269	285	267	270	256	237	269	299	186	279	284	260	265	295	253	290	288	10	218	72	253	297
2006	294	264	324	12	378	352	306	188	342	324	328	223	338	314	363	324	336	293	290	322	295	250	305	324	321	335	378	279	321	356	12	274	74	323	332
2007	173	158	189	14	284	179	172	204	192	147	186	284	171	183	186	169	175	186	197	177	169	180	187	187	175	175	191	171	176	148	14	189	97	173	162
2008	206	189	223	20	259	224	208	252	249	181	232	180	203	199	242	206	222	244	243	184	203	220	221	249	184	220	259	200	218	191	20	230	127	186	177
2009	248	227	270	23	323	257	266	157	302	215	292	229	249	210	276	253	261	278	310	232	254	270	281	323	237	268	322	256	296	213	23	296	167	235	226
2010	296	268	324	26	423	296	325	173	361	250	297	268	288	241	326	287	331	334	388	277	280	346	343	418	297	325	423	313	347	237	26	345	212	252	274
2011	194	176	211	30	304	187	185	229	186	173	173	304	194	287	196	192	167	197	190	186	183	158	183	182	174	203	195	189	191	274	30	181	253	174	191
2012	207	189	224	43	294	233	215	294	214	214	205	125	230	182	231	222	217	233	224	227	232	207	213	198	186	232	259	183	238	156	43	230	129	193	236

gather when pop. exceeds:	250
pop. size after gather:	150
foals included in AML?	YES
percent to gather:	85
continue for fert treat?	YES
duration fertility control:	0
% efficacy fert. control:	100
trials:	30
years:	10
initial calendar year:	2002
coeff. var. foal mortality:	2
coeff. var. adult mortality:	1.7
coeff. var. foaling rate:	0.2
source of age distribution:	computed by program
prop. male @ birth	0.5

age	init. age dist. female	init. age dist. male	surv. prob. female	surv. prob. male	foal. rate	% to take female	% to take male	% to treat
0	98	99	0.917	0.917	0	100	100	100
1	75	75	0.969	0.969	0	100	100	100
2	61	61	0.951	0.951	0.364	100	100	100
3	48	48	0.951	0.951	0.44	100	100	100
4	38	38	0.951	0.951	0.841	100	100	100
5	30	30	0.951	0.951	0.841	100	100	100
6	24	24	0.951	0.951	0.841	100	100	100
7	19	19	0.951	0.951	0.841	100	100	100
8	15	15	0.951	0.951	0.841	100	100	100
9	12	12	0.951	0.951	0.841	100	100	100
10	10	10	0.951	0.951	0.841	100	100	100
11	8	8	0.951	0.951	0.793	100	100	100
12	6	6	0.951	0.951	0.793	100	100	100
13	5	5	0.951	0.951	0.793	100	100	100
14	3	3	0.951	0.951	0.793	100	100	100
15	2	2	0.951	0.951	0.793	100	100	100
16	6	7	0.951	0.951	0.793	100	100	100
17	3	3	0.951	0.951	0.793	100	100	100
18	2	2	0.951	0.951	0.793	100	100	100
19	1	1	0.951	0.951	0.793	100	100	100
20	1	0	0.951	0.951	0.793	100	100	100
21	0	0	0.951	0.951	0.793	100	100	100
22	0	0	0.951	0.951	0.793	100	100	100
23	0	0	0.951	0.951	0.793	100	100	100
24	0	0	0.951	0.951	0.793	100	100	100
25	0	0	0	0	0.793	100	100	100

1-8-02

Gene Kolkman, Field Manager
BLM-Ely Field Office
HC 33, Box 33500
Ely, NV 89301-9408

Dear Gene,

Thank you for the opportunity to review and comment on the Wilson Complex EA and Capture Plan. We are please to see a more extensive gather and selection plan for these herds. Caliente is riddled with small and adjacent HMAs. It is reasonable to define a complex.

Below are my comments by page and reference:

Page 2, Background

BLM makes the assumption that herd recruitment is 18% to 25% per year. There is no footnote or data to support this assumption. Please reference the supporting data in the final for planning.

AML's were determined by a land use plan amendment or Multiple Use Decisions. I assume that it is the later. We are unsure if all affected allotments have FMUDs. Please reference that in the final.

Page 4, Planning

We are unsure of how the "Lincoln County Policy Plan for Public Lands" determined wild horse numbers at "reasonable" numbers. Please reference and explain. We are unsure what Allotment Agreements are in respect to determining AML. We support the use of FMUDs to determine AMLs.

Page 5, Proposed Action

We can support the stages of animal removals by age class. By retaining the age classes from 6 years to 9 years, the surviving herd will have a better distribution of animals than past gathers.

With the objective to gather all wild horses, the Bureau should collect comprehensive sex, longevity, production and color data. A selection criteria for a natural and thriving herd can be determined prior to the gather. We support the objective to return the same composition of the herd to the HMA.

Page 10, Vegetation, Soil and Water

It would benefit the reader to list all objectives used to determine the AML.

Summary

We are encouraged that BLM is about to modify its adoption policy of younger animals. The collection of all biological data and the commitment to return the natural composition of animals to the AML is one of our appeal points in the past. Good job Allen and Jared.

If you have any questions regarding my comments, please don't hesitate to call. We look forward to reviewing the requested information.

Sincerely,

CATHERINE BARCOMB
Administrator