

United States Department of the Interior

BUREAU OF LAND MANAGEMENT Winnemucca Field Office 5100 East Winnemucca Boulevard Winnemucca, Nevada 89445 http://www.ny blm.gov/winnemucca



In Reply Refer To: 4720 (NV022-44)



September 21, 2000

Dear Interested Party,

The Winnemucca Field Office of the Bureau of Land Management proposes to capture wild horses within the Buffalo Hills, Fox & Lake Range, and Granite Range Herd Management Areas.

A copy of the draft environmental analysis is enclosed for you review. All comments to this draft environmental assessment must be received by this office by October 23, 2000. If no or minimal comments are received the draft will become the final and a Decision Record/Finding of No Significant Impact would be prepared. If you have any questions, please contact Tom Seley or Rodger Bryan at 775-623-1500.

Sincerely,

No DARS

Colin P. Christensen Assistant Field Office Manager Renewable Resources

Enclosure:

1. Buffalo Hills Complex Capture Plan Environmental Assessment (25 pp)



United States Department of the Interior

BUREAU OF LAND MANAGEMENT Winnemucca Field Office 5100 East Winnemucca Boulevard Winnemucca, Nevada 89445 (775) 623-1500 http://www.nv.blm.gov/winnemucca



In Reply Refer To: 4720 (NV-022.44)

September 27, 2000

NOTICE OF INTENT TO GATHER

Dear Reader:

This letter is to inform you that the Winnemucca Field Office plans to remove excess wild horses and burros from the Calico Mountains, Warm Springs Canyon, and the Black Rock Range - East & West Herd Management Areas (HIMA's) starting no earlier than October 15, 2000. This removal constitutes no new decision and is not an appealable action. The removal is a continuation of the implementation of the Multiple Use Decisions for the Buffalo Hills, Leadville, Soldier Meadows, and Paiute Meadows Allotments issued Febuary 9, 1993, January 19,1994, January 24, 1994, and July 12, 1995 respectfully.

These multiple use decisions established the Appropriate Management Level (AML) for the Calico Mountains, Warm Springs Canyon, and the Black Rock Range - East & West HMA's. The capture methods are outlined within the Final Calico Complex Capture EA dated September 14, 2000. The removals are in accordance with the Wild and Free Roaming Horse and Burro Act of 1971 (P.L. 92-195) section 3(b)(1) and (2), as amended.

Based on the 2001 strategy, the plan will be to implement the management ranges identified in the Multiple Use Decisions, which is to reduce the population to 40% below AML, then manage at a range where the AML is the maximum number for the HMA.

The following table lists the AML, estimated wild horse and burro populations, and estimated number to be released back into the Calico Mountains, Warm Springs Canyon, and the Black Rock Range - East & West HMA's. The population estimate is based on a July 2000 helicopter census.

НМА	Estimated 2000 Population	Estimated #'s to Remove	AML Range	Estimated #'s to Release
Calico Mtn	1,148	948	200-333	200
Warms Springs Canyon	749/45*	644/30*	105-175 15-24*	105/15*
Black Rock East & West	854	742	112-186	112

* Burros

A fertility control research project is scheduled in conjunction with the removal. The Programmatic Environmental Assessment (PEA) which analyzed the environmental consequences of implementing a proposed fertility control research project within the Winnemucca Field Office was approved November 10, 1999. This PEA serves as an umbrella or district wide analysis of population level fertility control research. The specific proposals for fertility control research for the Calico Mountains, Warm Springs Canyon, and the Black Rock Range - East & West HMA's was tiered to this PEA through an internal Documentation of Land Use Plan Conformance and National Environmental Policy Act (NEPA) Adequacy.

The Final Calico Complex Capture Environmental Assessment, and Wild Horse Fertility Control Research PEA are available for review at the Winnemucca Field Office.

If you have any questions, please contact Bryan Fuell or Rodger Bryan at (775) 623-1500.

Sincerely yours,

Colin P. Christensen Assistant Field Manager Division of Renewable Resources

BUFFALO HILLS COMPLEX CAPTURE PLAN DRAFT ENVIRONMENTAL ASSESSMENT

NV-020-00-50

SEPTEMBER 21, 2000

WINNEMUCCA FIELD OFFICE

Background Information

With passage of the Wild Horse and Burro Act of 1971, Congress found that: "Wild horses are living symbols of the 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 present day, the Bureau of Land Management (BLM) Winnemucca Field Office (WFO) 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 16 to 25% increases in numbers annually, and wild burros increase at a slower rate, 11 to 15%. This can result in a doubling of the wild horse population about every 3 years. At the same time, nationwide awareness, and attention has 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 an 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 Buffalo Hills, Fox & Lake Range, and Granite Range Herd Management Areas (HMA's). Past capture, census, and distribution data collected indicate some inter movement among the horses of these HMA's. For this document the three HMA's will be referred to as the Buffalo Hills Complex.

The numbers, age, and sex of animals proposed for removal are derived from <u>The Wild</u> <u>Horse Population Model Version 3.2</u> Developed by Dr. Steven Jenkins, Associate Professor, University of Nevada Reno. Appendix I establishes the parameters used for these HMA's modeling runs.

AML's for these HMA's have been previously established through the Allotment Evaluation /Multiple Use Decision process based on monitoring data, following a thorough public review. Documents containing this information are available for public review at the WFO.

Purpose and Need for Action

The WFO proposes to implement a program of integrated wild horse management in the Buffalo Hills, Fox & Lake Range, and Granite Range HMA's. The emphasis of this integrated management program will be to achieve and maintain wild horse AML's, collect information on herd characteristics, determine herd health, maintain sustainable rangelands, maintain a healthy and viable wild horse population, and conduct fertility control research. All activities will be conducted according to a specified set of standardized operating procedures (SOP's) (Appendix II).

Conformance with Existing Land Use Plans

The Sonoma-Gerlach Resource Area Management Framework Plan (MFP)/Final Grazing Environmental Impact Statement (EIS) and Record of Decision, which directs the management in the project area, were approved July 9, 1982. The Proposed Action is in conformance with these Plans and are consistent with federal, state, and local laws, regulations, and plans to the maximum extent possible.

Relationship to Statutes, Regulations, Policies, Plans, or Other Environmental Analysis

AML's were established through allotment evaluations and final multiple use decisions (FMUDS) for the Buffalo Hills, Pole Canyon, and Rodeo Creek Allotments which are contained within the HMA's. The following table shows the AML for wild horses by allotment for the Buffalo Hills, Fox & Lake Range, and Granite Range HMA's.

Allotment	Buffalo Hills HMA	Fox & Lake Range HMA	Granite Range HMA
Buffalo Hills	314 Head	-	258 Head
Pole Canyon	-	0	-
Rodeo Creek	-	204	-
Total AML	314 Head	204 Head	258 Head

Table I. AML by Allotment and HMA

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

- 1) Fox & Lake Emergency Gather EA, EA No. NV-020-03-14, January 1993
- 2) Buffalo Hills/Granite Range Horse Gather EA, EA No. NV-020-03-15, January 1993
- Winnemucca District Wild Horse/Burro Removal Programmatic EA, EA No. NV-020-7-24, August 1987
- Fox & Lake Range Wild Horse Gather Plan EA, EA No. NV-020-5-13, March 1985
- 5) Buffalo Hills, Granite Range, and Calico Mountains HUA WH Gathering Plan EA, EA No. NV-020-5-15, March 1985

The WFO is supporting research aimed at controlling the reproduction rate of wild horses through a collaborative effort to develop an immunocontraceptive vaccine. The vaccine is a safe, humane and inexpensive tool, when used with management prescriptions, and may reduce the frequency of gathering excess wild horses. Studies have been conducted on a varied group of HMA's in Nevada and will be used to develop management strategies implementing fertility control treatment. The analysis of the use of this vaccine on wild horses managed by the WFO has been addressed in the Programmatic Environmental Assessment, Wild Horse Fertility Control Research, EA No. NV-020-00-02, November 1999.

These allotment evaluations, FMUD's, and EA's are available in the WFO for public review.

Alternatives Including the Proposed Action

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 based on the BLM's 2001 Wild Horse Strategy where all HMA's will be gathered to reach AML over a 10 year period. The plan outlines a 4 year gather cycle to manage wild horses Bureau wide. The strategy is to implement population management for each HMA where wild horses will be managed in a range from 40% below AML, to AML' (see Table II). AML is the maximum number of wild horses for the HMA.

The proposed action for the Buffalo Hills Complex would be to capture approximately 2,327 wild horses and remove 1,862 wild horses, determine sex, age, and color, acquire blood samples, assess herd health (pregnancy/parasites loading/physical condition/etc.) conduct immunocontraceptive research and monitor results as appropriate, sort individuals as to age, sex, temperament and/or physical condition, and to return selected animals to the range. Excess wild horses would be transported to a BLM adoption preparation/holding facility.

The following table shows the July 2000 population estimate obtained by helicopter census. This data was used to determine the estimated number of wild horses to be removed, and released back into their respective HMA.

HMA	Estimated 2000 Population	Estimated #'s to Remove	AML Range	Estimated #'s to Release
Buffalo Hills	651	463	188-314	188
Fox & Lake Range	648	526	122-204	122
Granite Range	1028	873	155-258	155

Table II

Multiple capture sites (traps) may be used to capture wild horses from the HMA's. Whenever possible, capture sites would be located in previously disturbed areas. All capture and handling activities (including capture site selections) will be conducted in accordance with the Standard Operating Procedures (SOP's) described in Appendix II. Selection of capture techniques would be based on several factors such as the season of removal, condition of animals, herd health, 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.

The Proposed Action includes the treatment of released mares with a revised immunocontraceptive vaccine, Porcine Zona Pellucida (PZP). The Programmatic Environmental Assessment Wild Horse Fertility Control Research (NV-020-00-02) provides a district wide analysis of population level fertility control research within the Winnemucca District.

The immunocontraceptive vaccine would inhibit reproduction for two breeding seasons. All treated mares would be freeze marked on the left hip or shoulder to enable the researchers to positively identify animals in the research project during the data collection phase.

In an attempt to predict population dynamics, a computer simulation was ran using the wild horse population model developed by Dr. Stephen Jenkins of the University of Nevada, Reno (Jenkins 1996) (Appendix I).

The proposed action would be implemented in the fall-winter of 2000 & 2001.

Alternative 1 (Proposed Action without the use of Immunocontraceptives)

Wild horse management under this alternative would utilize the various capture techniques and processing protocols identified in the Proposed Action. Selection of capture techniques would be based on several factors such as the season of removal, condition of animals, herd health, and environmental considerations. This alternative differs from the proposed action by not incorporating the use of fertility control measures for research, to regulate reproductive capacity of the herd. This alternative would allow for achievement of the program objectives but at a higher ultimate cost through increased gather intervals and increased numbers of excess wild horses. In an attempt to predict population dynamics, a computer simulation was ran using the wild horse population model developed by Dr. Stephen Jenkins of the University of Nevada, Reno (Jenkins 1996) (Appendix I).

Alternative 2 (Continue Selective Removal with the use of Immunocontraceptives)

Wild horse management under this alternative would be to remove all animals utilizing a Selective Removal Strategy based on previously established "age selective removal" criteria (i.e. 0-5 year olds or 0-9 year olds), using the various capture techniques and processing protocols identified in the Proposed Action. Selective removal objectives target removal efforts for excess animals, based on specific segments of a given wild horse population. 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 the 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.

Table III shows two examples of selective removal using July 2000 census data to determine current population levels and estimated removal and release numbers for 0-5 and 0-9 age classes:

Table III

HMA	Estimated 2000 Population	AML Range	Estimated 0-5 's to Remove	Estimated #'s 0-5 to Release	Estimated 0-9's to Remove	Estimated #'s 0-9 to Release
Buffalo Hills	651	188-314	391	260	456	195
Fox & Lake Range	648	122-204	389	259	518	130
Granite Range	1028	155-258	617	411	720	308

Alternative 2 includes the treatment of released mares with a revised immunocontraceptive vaccine, PZP. The immunocontraceptive vaccine would inhibit reproduction for two breeding seasons. All treated mares would be freeze branded on the left hip or shoulder to enable the researchers to positively identify animals in the research project during the data collection phase.

In an attempt to predict population dynamics, a computer simulation was ran using the wild horse population model developed by Dr. Stephen Jenkins of the University of Nevada, Reno (Jenkins 1996)(Appendix I).

Alternative 3 (Selective Removal without the use of Immunocontraceptives)

Wild horse management under this alternative would still involve the various capture techniques and processing protocols identified in the Proposed Action. Selection of capture techniques would be based on several factors such as the season of removal, condition of animals, herd health, and environmental considerations. This alternative differs from Alternative 2 by not incorporating the use of fertility control measures for research, to regulate reproductive capacity of the herd. This alternative would allow for achievement of the program objectives but at a higher ultimate cost through increased gather intervals and increased numbers of excess horses. In an attempt to predict population model developed by Dr. Stephen Jenkins of the University of Nevada, Reno (Jenkins 1996) (Appendix I).

Alternative 4 (No Action)

This alternative consists of no direct management of wild horse numbers. Wild horses would be allowed to regulate their numbers naturally through predation, disease, and forage, water and space availability. Gather operations would continue at their current irregular interval.

This alternative was eliminated from further consideration due to the inability to achieve the stated objectives, and because of the requirements of the Wild Free-Roaming Horse and Burro Act of 1971 which mandated the Bureau to "protect the range from the deterioration associated with overpopulation", and "to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area".

Affected Environment

Herd Management Areas

Buffalo Hills HMA (NV-220)

The Buffalo Hills HMA is located within the Buffalo Hills Allotment (MAP 1). Elevations range from 3,823 feet at the valley floor to 6,958 feet at Poodle Mountain. Vegetative types found within the HMA's vary from black greasewood- shadscale-grass at lower elevations to sagebrush- bunch grass and juniper at higher elevations.

Past capture data was used to determine the color and approximate percentage of each color within the herd. The majority of horses exhibit a bay (54%) color pattern; however there are sorrel (17%), brown (16%), black (11%), and chestnut (2%).

Post gather data was used to determine the sex ratio (%) and age structure within the herd. The sex ratio was 46% mares and 54% studs. Approximately 55% of the herd is 0-5 years old, 15% are 6-9 years old, and 30% are 10 years and older.

The area is comprised of approximately 132,410 acres; 123,498 acres (93%) of public land and 8,912 acres (7%) of private land.

The Buffalo Hills HMA is contained within the Poodle Mountain Wilderness Study Area (WSA) as shown on Map 2.

Fox & Lake Range HMA (NV-228)

The Fox & Lake Range HMA is located within the Pole Canyon and Rodeo Creek Allotments (Map 1) The southern boundary of the HMA abuts the Pyramid Lake Indian Reservation. Elevations range from 3,897 feet at the valley floor to 7,608 feet at Pah Rum Peak. Vegetative types found within the HMA vary from shadscale/budsage-grass, Wyoming sagebrush-grass at lower elevations to mountain sagebrush-bunch grass, low sagebrush-bunch grass and juniper at higher elevations.

Past capture data was used to determine the color and approximate percentage of each color within the herd. The majority of horses exhibit bay (53%) or sorrel (15%) color pattern; however there are red roan (10%), brown (8%), buckskin (7%), black (3%), pinto (1%), grulla (1%), palomino (1%), and others (1%).

Post gather data was used to determine the sex ratio (%) and age structure within the herd. The sex ratio was 55% mares and 45% studs. Approximately 47% of the herd is 0-5 years old, 30% are 6-9 years old, and 23% are 10 years and older.

The area is comprised of approximately 177,274 acres; 171,967 acres (97%) public land and 5,307 acres (3%) private land.

The Fox & Lake Range HMA contains the Pole Creek and Fox Range WSA's, as shown on Map 2.

Granite Range HMA (NV-221)

The Granite Range HMA is located within the Buffalo Hills Allotment (Map 1). Elevations range from 3,920 at the valley floor to 9,056 feet at Granite Peak. Vegetative types found within the HMA vary from greasewood-shadscale-grass at lower elevations to mountain sagebrush-bunch grass, low sagebrush-bunch grass, mountain mahogany, and aspen at higher elevations.

Past capture data was used to determine the color and approximate percentage of each color within the herd. The majority of horses exhibit bay (19%), sorrel (15%), buckskin (14%) and pinto (13%) color patterns; however there are brown (7%), appaloosa (6%), black (5%), strawberry roan (5%), chestnut (4%), palomino (4%), red roan (3%), grulla (2%), gray (1%), white (1%), and others(1%).

Post gather data was used to determine the sex ratio (%) and age structure within the herd. The sex ratio was 54% mares and 46% studs. Approximately 53% of the herd is 0-5 years old, 14% are 6-9 years old, and 33% are 10 years and older.

The area is comprised of approximately 101,506 acres; 88,506 acres (87%) public land and 13,144 acres (13%) private land.

There are no WSA's located within the Granite Range HMA (Map 2).

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 BLM. 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. In the Buffalo Hills Complex, wild horse population growth rates have been verified as high as **20%**. The estimated wild horse population for the HMA's in the Buffalo Hills Complex shown below are from a helicopter census conducted in July 2000.

stimated Fall 2000 Population
651
648
1028

The Buffalo Hills Complex has undergone several removals since passage of the act. These removals have incorporated all of the removal strategies identified in the proposed action, with the exception of fertility control.

Sex ratios for wild horse within the Buffalo Hills Complex are representative of other HMA's in the WFO 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.

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, cultural resources, environmental justice, prime or unique farm land, flood plains, native American religious concerns, threatened and endangered species, water quality, or wild and scenic rivers.

Environmental Consequences (Proposed Action & Alternatives)

Vegetation, Soil, and Water

Implementation of the proposed action would reduce the wild horse population to 40% below AML in the Buffalo Hills Complex which would help to promote the achievement and maintenance of 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.

Implementation of the alternatives would reduce the current wild horse population and help to promote progression toward achieving a thriving natural ecological balance. This would result in an increase in forage availability, vegetation density, vigor, reproduction, and productivity. However, the progression toward and maintenance of a thriving natural ecological balance would occur slower than the proposed action. Selective removal of all wild horses aged 0 to 5 would result in reducing the wild horse population in the Buffalo Hills HMA to 17% below AML, while the Fox & Lake Range HMA would be 27% above AML and the Granite Range HMA would be 59% above AML. Selective removal of all wild horses aged 0 to 9 would result in reducing the wild horse population in the Buffalo Hills HMA to 38% below AML, the Fox & Lake Range HMA to 36% below AML, while the Granite Range HMA would be 19% above AML.

The proposed action or alternatives 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.

Impacts to vegetation with implementation of the proposed action or alternatives could include disturbance of native vegetation immediately in and around temporary trap sites, and holding and processing facilities. Impacts are created by vehicle traffic, and hoof action of penned horses, and 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.

Wildlife and Livestock

The proposed action or alternatives would result in reduced competition with wildlife and livestock which would increase the quantity and quality of available forage. There would be less disturbance associated with wild horses along stream bank riparian habitat and adjacent upland habitat. This should result in improved habitat conditions on existing and potential re-introduction Lahontan Cutthroat Trout streams. Impacts to wildlife and livestock would be potential disturbance from the helicopter and increased traffic. These disturbances would be during the capture period only.

Wilderness

Wilderness values would be positively affected by implementation of the proposed action or alternatives 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.

Noxious Weeds and Invasive Non-Native Species

Noxious weed and invasive non-native species introduction and proliferation is a growing concern among local and regional interests. Noxious weed surveys including invasive and non-native species in the WSA's of the Buffalo Hills Complex have been completed. These surveys indicate that the following state listed noxious weeds occur:

Scientific Name	Common Name	Plant Symbol
Cardaria draba	Whitetop	CADR
Centaurea repens	Russian Knapweed	CERE3
Cirsium vulgare	Bull Thistle	CIVU
Lepidium latifolium	Perennial Pepperweed	LELA2
Tamarix ramosissima	Salt Ceder	TARA

These weeds occur in a variety of habitats including road side areas, rights-ofway, wetland meadows, as well as undisturbed upland rangelands. Noxious weed impacts associated with the proposed action or alternatives include potential importation or transportation of new species of weeds to the Buffalo Hills Complex area, spread of existing noxious weed seeds and plant parts to new areas in the complex, and increases in the size of existing weed infestation sites. These impacts would potentially be accomplished by contractor vehicles and livestock entering the complex area and through feeding of contaminated hay to captured horses which are released before seeds pass through their system.

Cultural

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. The WFO archeologist will review all proposed and previously used trap site and facility locations to determine if these have had a cultural resources inventory, and/or if a new inventory is required. If cultural resources are encountered at proposed trap site or holding facility locations, those locations would not be utilized unless it could be modified to avoid impacts to cultural resources.

Wild Horses

Impacts to wild horses under the proposed action or alternatives may occur to either individual animals or the population as a whole. These impacts include handling stress associated with the herding, capture, processing, and transportation of animals from temporary trap sites to temporary holding facilities, and from the temporary holding facilities to an adoption preparation facility. Following administration of the immunocontraceptive fertility control vaccines, minor swelling may occur at the injection site and/or an injection site injury may occur, however this is rare. The intensity of these impacts vary by individual, and are indicated by behaviors ranging from nervous agitation to physical distress. Mortality of wild horses captured during a gather does occur, however it is infrequent and typically is no more than one half to one percent of the animals captured.

Impacts which can occur after the initial stress may include spontaneous abortion in mares, and increased social displacement and conflict in studs. Spontaneous abortion following capture is very rare. Traumatic injuries that may occur typically involve biting and/or kicking that results in bruises and minor swelling which normally does not break the skin. These impacts are known to occur intermittently during wild horse gather operations. The frequency of occurrence of these impacts among a population varies with the individual.

Population wide impacts can occur during or immediately following implementation of the proposed action or alternatives. 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 over the last 20 years have proven 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.

The effect of removing wild 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 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 SOP's) 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.

Population wide indirect impacts would not appear immediately as a tangible effect and are more difficult to quantify. Population wide indirect impacts are associated primarily with the use of fertility control drugs and involve reductions in short term fecundity of initially a large percentage of mares in a population, increasing herd health as AML's are achieved, and potential genetic issues regarding the control of contributions of mares to the gene pool, especially in small populations. Again, with implementation of the proposed action, these impacts would be expected to be mitigated by an overall lessening of the need to impose fertility control treatments on a high proportion of the mare population, and all mares would be expected to successfully recruit some percentage of their offspring into the population.

Cumulative Impacts (Proposed Action & Alternatives)

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 or alternatives would reduce the wild horse population to AML in the Buffalo Complex HMA's which would help to promote a thriving natural ecological balance. This would result in an increase in vegetation density, vigor, reproduction, productivity, and forage availability.

Adverse impacts to vegetation with implementation of the proposed action or alternatives 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 selective removal gathers which may have altered the age structure, composition, and 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 Buffalo Hills Complex wild horses.

These impacts would be expected to be marked by changes occurring slowly over time. The WFO 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). 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.

Consultation and Coordination

List of Preparers

Tom Seley	Wild Horse and Burro Specialist
Rodger Bryan	Supervisory Fish and Wildlife Biologist
Bryan Fuell	Wild Horse and Burro Specialist
Jeff Johnson	Environmental Coordinator
Dave Stockdale	Wild Horse and Burro Specialist/GIS
Nadine Edwards	Wildlife Biologist (Wild Horse)
Peggy McGuckian	Cultural
Lynn Clemons	Wilderness

Persons, Groups, and Agencies Consulted

American Horse Protection Assoc.	American Humane Assoc.
American Mustang & Burro Assoc.	American Mustang Assoc.
American Protection Institute	HERDS
Humane Society of the US	International Society for the Protection of
	Mustangs & Burros
LIFE Foundation	National Wild Horse Assoc.
National Mustang Assoc.	Nevada Commission for the Preservation of
	Wild Horses
Whole Horse Institute	Wild Horse Organized Assistance
Wild Horse Spirit	Craig Downer
American Horse Council Inc.	The Fund for Animals, Inc
CO Wild Horse and Burro Coalition	Nevada State Clearing House
Washoe County Department of	Jackson Family
Community Development	
Stan Ceresola	Cecil and Lena Courtney
John and Vella Torvick	Pyramid Lake Paiute Tribe

Mitigation Measures

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

APPENDIX I. POPULATION MODELING

Number of horses by year for each HMA

Proposed Action

Year	Buffalo Hills	Fox & Lake Range	Granite Range
2000	651	648	1028
2001	235	164	204
2002	237	171	230
2003	258	186	260
2004	320	230	315
2005	389	287	372

Alternative 2. Selective Removal, with use of Fertility Control

Year	Buffalo Hills	Fox & Lake Range	Granite Range
2000	651	648	1028
2001	240	221	195
2002	244	229	216
2003	259	249	247
2004	318	310	299
2005	387	378	357

Alternative 1. Proposed Action, no Fertility Control

Year	Buffalo Hills	Fox & Lake Range	Granite Range
2000	651	648	1028
2001	235	162	200
2002	284	198	245
2003	338	238	296
2004	402	283	353
2005	474	334	423

Alternative 3. Selective Removal, no Fertility Control

Year	Buffalo Hills	Fox & Lake Range	Granite Range
2000	651	648	1028
2001	245	219	195
2002	296	260	236
2003	354	308	278
2004	417	362	330
2005	489	434	396

APPENDIX II. 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 a pilot (or "Judas") horse to lead the wild horses into the trap site. Individual ground hazers may also be used to assist in the gather.
- 2. Helicopter Roping

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

- a. Under 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..

3. Bait Trapping

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

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

B. BLM conducted Helicopter - Non-Contract Operations

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

C. Safety and Communications

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

- 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

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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 condition rating 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 trailer shall be as directed by the BLM and may include limitations on numbers according to age, size, sex, temperament, and animal condition. The following minimum square feet per animal shall be allowed in all trailers:

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

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

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

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

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

F. Animal Characteristics and Behavior

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

G. Public Participation

It is BLM policy that the public will not be allowed to come into direct contact with WH&B 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.

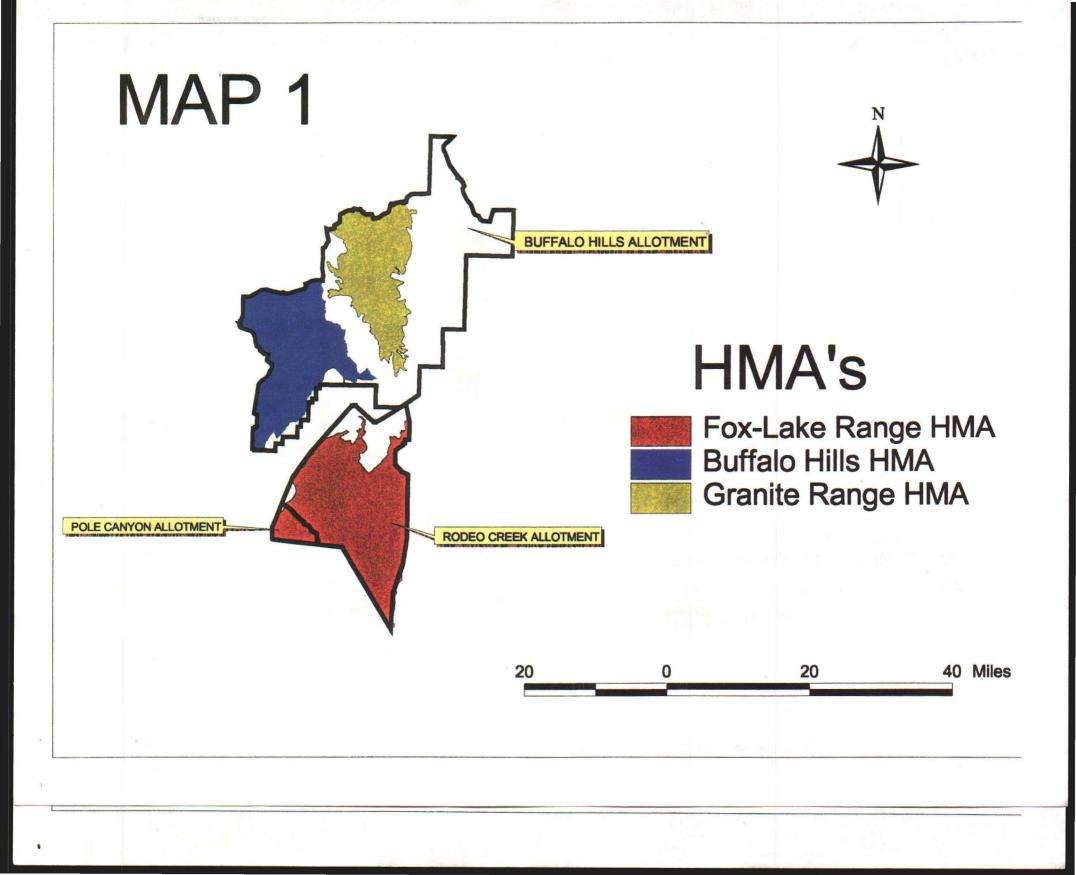
H. Responsibility and Lines of Communication

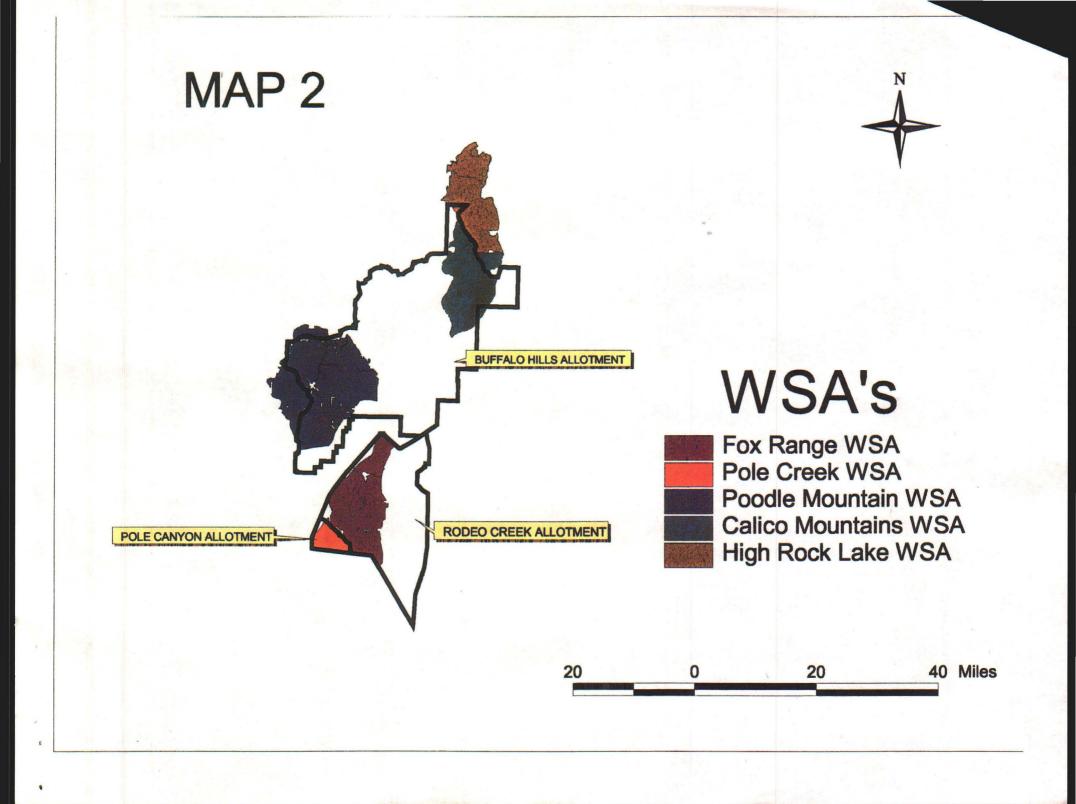
The Contracting Officer's Representative, Tom Seley, and Project Inspectors, Rodger Bryan, Bryan Fuell, Nadine Edwards, and David Stockdale from the Winnemucca Field Office, have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. The Assistant Field Office Manager for Renewable Resources and the Winnemucca Field Office Manager will take an active role to ensure that appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, and the Palomino Valley Wild Horse and Burro Center. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.

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

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

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





12-4-01

In Reply To:

(NV022-42)

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT Winnemucca Field Office 5100 East Winnemucca Boulevard

Winnemucca, Nevada 89445

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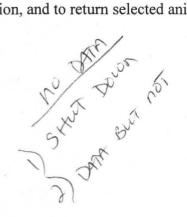
December 4, 2001

Dear Reader:

This letter is to inform you that the Winnemucca Field Office plans to remove excess wild horses from the Buffalo Hills and south half of the Granite Range Herd Management Area's (HMA) starting no earlier than January 20, 2002. The removal is a continuation of the implementation of the Buffalo Hills Complex Capture Plan Environmental Assessment (EA NO. NV-020-00-50), and Finding of No Significant Impact and Decision Record approved November 22, 2000. The Buffalo Hills Complex is made up of the Buffalo Hills, Fox & Lake Range, and Granite Range HMA's.

The Buffalo Hills Complex Capture Plan Environmental Assessment was initiated in January 2001, however the action was not completed due to a lack of holding space at adoption preparation facilities. There were 455 wild horses removed from the Fox & Lake Range HMA, and 590 wild horses removed from the north half of the Granite Range HMA. Full implementation of the action will be achieved subsequent to the removal of excess wild horses from the Buffalo Hills and south half of the Granite Range HMA's.

The gather will be conducted in accordance with the Finding of No Significant Impact and Decision Record for the Buffalo Hills Complex Capture Plan Environmental Assessment. The action for the Buffalo Hills and south half of the Granite Range HMA's is to capture approximately 1,115 wild horses and remove 881 wild horses, determine sex, age, and color, acquire blood samples for genetic analysis, assess herd health (pregnancy/parasite loading/physical condition/etc.) conduct immunocontraceptive research and monitor results as appropriate, sort individuals as to age, sex, temperament and/or physical condition, and to return selected animals to the range.



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The following table lists the Appropriate Management Level (AML) range, estimated wild horse population, estimated number to remove, and the estimated number to be released for the Buffalo Hills and south half of the Granite Range HMA's. The estimated population is based on a helicopter census conducted in July 2000.

НМА	AML Range	Estimated 2001 Population	Estimated #'s to Remove	Estimated #'s to be Released
Buffalo Hills	188 to 314	749	561	188
Granite Range - south half	46 to 76	366	320	46

In the Buffalo Hills HMA, it is highly probable that one trap site (constructed of portable panels) within the Poodle Mountain Wilderness Study Area (WSA) will be required to implement population management. The proposed site would be no more than ¼ acre in size, located at T. 34 N., R. 20 E., section 32 NWSESW. Access is from an existing road approximately 1200 feet north of the proposed site. If animal locations within the Buffalo Hills HMA require using the proposed trap site in the Poodle Mountain WSA, the action can be implemented in conformance with BLM Manual H-8550-1 - INTERIM MANAGEMENT POLICY AND GUIDELINES FOR LANDS UNDER WILDERNESS REVIEW.

The following mitigating measures identified in the Buffalo Hills Complex Capture Plan Environmental Assessment, and Finding of No Significant Impact and Decision Record approved November 22, 2000 would be adhered to:

- 1. Access would be by existing roads and across rocky surfaces only.
- 2. At completion of the capture of wild horses at this site all portable panels, posts, and other material (i.e. jute, plastic snow fence) used to capture wild horses would be removed.

Copies of the Buffalo Hills Complex Capture Plan Environmental Assessment (EA NO. NV-020-00-50), and Finding of No Significant Impact and Decision Record for the Buffalo Hills Complex Capture Plan Environmental Assessment are available from the Winnemucca Field Office.

If you have any questions, please contact Tom Seley, or Rodger Bryan at (775) 623-1500.

Sincerely yours,

Colin P. Christensen Assistant Field Manager Renewable Resources