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**Nellis Wild Horse Range –
Preliminary Gather Plan
Environmental Assessment
NV-052-2007-362**



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Introduction

The purpose of this environmental assessment (EA) is to analyze the environmental impacts associated with the Bureau of Land Management's (BLM's) proposal to remove approximately 800-820 excess wild horses on the Nevada Wild Horse Range (NWHR) beginning in December 2007. Fertility control would also be applied to mares released back to the range following the gather. Refer to Map 1 (NWHR General Reference Map, page 3).

This EA contains the site-specific analysis of potential impacts that could result with the implementation of the Proposed Action (Alternative 1), Alternative 2, or No Action (Alternative 3). The EA ensures compliance with the National Environmental Policy Act (NEPA). Based on the following analysis of potential environmental consequences, a determination can be made whether to prepare an Environmental Impact Statement (EIS) or issue a "Finding of No Significant Impact" (FONSI). A FONSI documents why implementation of the selected alternative will not result in environmental impacts that significantly affect the quality of the human environment.

Background Information

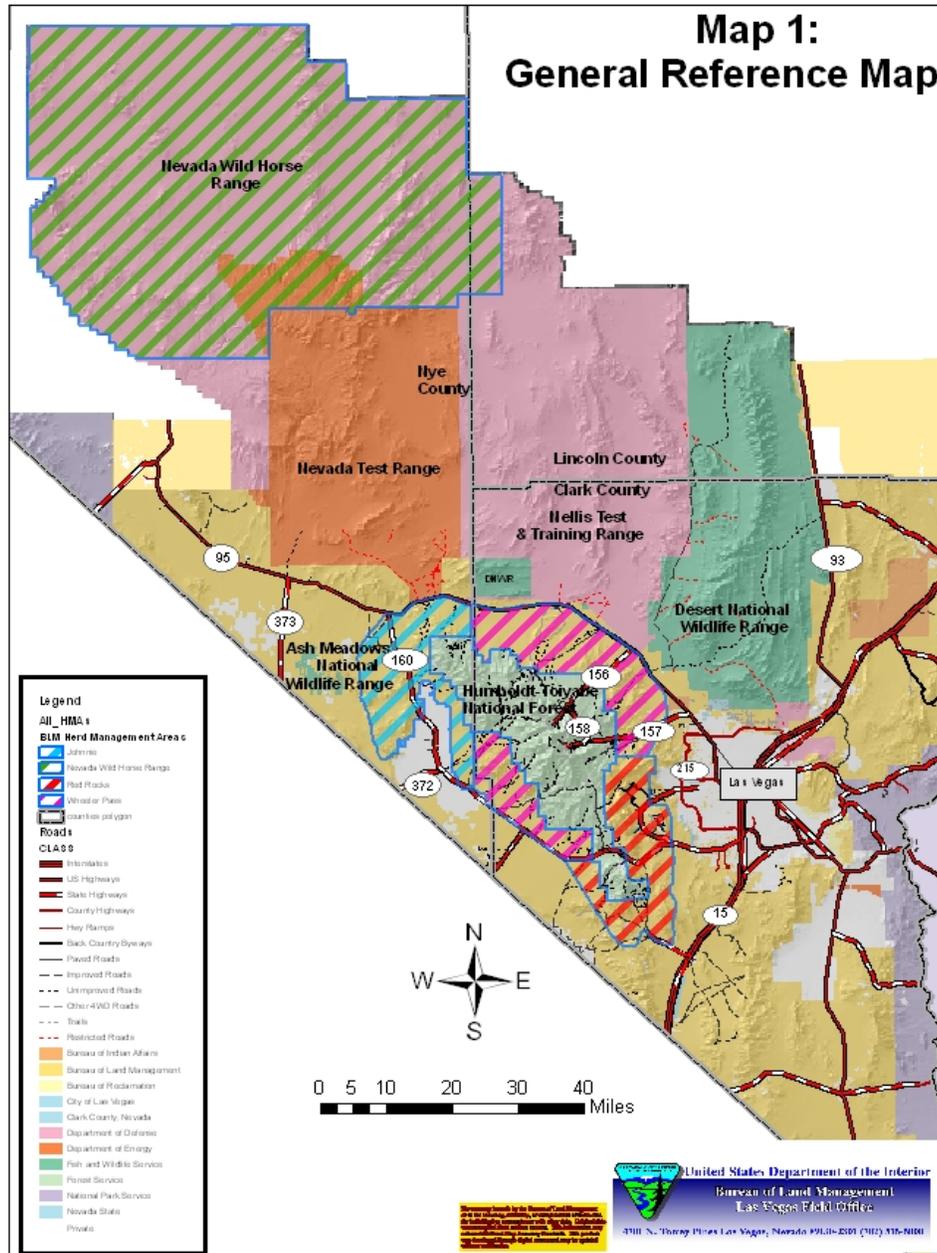
The NWHR is located in the north-central portion of the Nevada Test and Training Range (NTTR). It comprises 1.3 million acres of public land withdrawn for use by the Air Force within Nye County, Nevada.

The appropriate management level (AML) was re-established in July 2004 as a population range of 300-500 wild horses. As discussed in the Record of Decision (ROD) for the Approved Nevada Test and Training Range Resource Management Plan (RMP) and Final Environmental Impact Statement (FEIS - page 14), the AML is the optimum number which can graze based on detailed analysis of the available water, the military's operations mission, and other uses of the water resources. This document, together with the RMP/FEIS, is incorporated by reference.

The last scheduled removal of excess wild horses from the NWHR was completed in December 2003 when 1,651 horses were captured and 1,097 were removed.¹ Following the gather, 358 mares and 192 studs (a total of 550 animals) were released. The un-gathered population was estimated at fifty (50) animals (estimated to be 80% male and 20% female) for a total estimated post-gather population of 600 animals (232 males and 368 females). All release mares were given a fertility control vaccine prior to their release.

In July 2007, continuing drought and extreme high temperatures led to a lack of water available for use by wild horses on the eastern side of the NWHR in Kawich Valley. A total of 178 wild horses were captured and removed as a result of the drought emergency. An additional 71 wild horses died during late July 2007; the probable cause of death was a point source exposure to high levels of nitrates at a pond in the northwest corner of the NWHR. The source of the nitrates is unknown but may be the result of a series of environmental conditions which led natural nitrogen fixing bacteria to multiply and elevate the levels of nitrates and nitrites in the water. Additional environmental testing is ongoing in an effort to better determine the source and extent of the nitrates. No further deaths have occurred since the pond was fenced on July 26, 2007.

¹ At the time of the December 2003 gather, BLM's decision re-establishing the AML for the NWHR as a range of 300-500 animals was under protest by the Nevada Department of Wildlife. As a result, the population was reduced to the low point of the 1997 AML range, or 600 animals. The BLM Director dismissed the protest in full and the proposed AML of 300-500 wild horses became final in July 2004.



The current population of wild horses in the NWHR is estimated at about 1,100-1,120 animals, 3.7 times the low range of the AML². This data suggests the annual population growth has averaged about 22% over the past four years. Prior to the December 2003 gather and associated fertility control treatment, data suggested an annual population growth of up to 24% per year.

Due to lack of winter moisture, wild horses are remaining on the summer range, which consists of about 1/3 of their normal use area. Drought conditions, coupled with older/less functional water developments, have reduced the available forage and depleted the available water. As a result, the Air Force has been supplementing water at several locations since July 2005 to sustain the excess wild horses on the NWHR. This shortage of water has led to wild horses concentrating around the few remaining water sources, many of which are located adjacent to roads critical to military operations.

Utilization of available forage is mostly heavy within a 1-3 mile circumference of the available water. These conditions are causing animals to travel long distances (roughly 2-8 miles) to obtain adequate forage and social space. At the present time, wild horses are mostly in good physical condition, however, the health of the current wild horse population cannot be sustained based on the current available water without continued supplementation.

Analysis of the above information indicates the current AML of 300-500 is appropriate and that excess animals are present and require immediate removal.

Purpose and Need

The purpose of the Proposed Action is to remove about 800-820 excess wild horses within the Nevada Wild Horse Range. Removal of the excess wild horses is needed to protect the range from the deterioration associated with overpopulation of wild horses as authorized under Section 3 (b) (2) of the 1971 WFRHBA and section 302 (b) of the Federal Land Policy and Management Act of 1976.

The Bureau's determination of excess wild horses is based on vegetation and population monitoring in relation to use by wild horses; this data indicates current wild horse population levels are exceeding the NWHR's capacity to sustain wild horse use over the long term. Resource damage is occurring and is likely to continue to occur without immediate action. By removing excess wild horses, a thriving natural ecological balance between wild horse populations, wildlife, vegetation, the available water, and safe, effective military operations would be achieved. Applying fertility control measures as part of the Proposed Action would slow reproduction rates of mares returned to the NWHR following the gather, allowing vegetation resources time to recover. It would also decrease gather frequency and disturbance to individual animals and the herd and provide for a more stable wild horse social structure.

Conformance with Existing Land Use Plans

The proposed removal of excess wild horses as described in the action alternatives discussed below is in conformance with the July 2004 ROD for the Approved Nevada Test and Training Range RMP (page 15) which states: "*Wild horses will be removed when animals permanently reside on lands outside the AML core area (i.e., use is more than seasonal drift), or if the total horse population exceeds the AML for the HMA.*" The proposed removal would also be expected

² This number is derived from the July 2007 population census and includes the population adjustments which occurred in July 2007 as described in this EA, page 2.

to bring actual utilization to 50% or less of the current year's above ground primary production for key grasses and 45% or less for key shrubs and forbs as established in the ROD (page 15).

Consistency with Rangeland Health Standards and Guidelines

The action alternatives are also consistent with Guideline 4.1 of the Mojave/Southern Great Basin Resource Advisory Council (RAC) Standards and Guidelines for Rangeland Health and Healthy Wild Horse and Burro Populations which states: "*Wild horse and burro population levels in HMAs should not exceed AML*" as well as Guideline 4.2 which states: "*... Management levels will not conflict with achieving or maintaining standards for soils, ecological components, or diversity of habitat and biota.*"

Relationship to Statutes, Regulations or Other Plans

The Proposed Action and Alternative 2 are in conformance with all applicable regulations at 43 CFR (Code of Federal Regulations) 4700 and the 1971 Wild Free-Roaming Horses and Burros Act (WFRHBA), as amended. Included are:

- 43 CFR 4710.3-1:** Herd management areas shall be established for the maintenance of wild horse and burro herds. In delineating each herd management area, the authorized officer shall consider the appropriate management level for the herd, the habitat requirements of the animals, the relationships with other uses of the public and adjacent private lands, and the constraints contained in 4710.4. The authorized officer shall prepare a herd management area plan, which may cover one or more herd management areas.
- 43 CFR 4710.3-2:** Herd management areas may also be designated as wild horse or burro ranges to be managed principally, but not exclusively, for wild horse or burro herds.
- 43 CFR 4710.4:** Management of wild horses and burros shall be undertaken with limiting the animals' distribution to herd areas. Management shall be at the minimum feasible level necessary to attain the objectives identified in approved land use plans and herd management area plans.
- 43 CFR 4720.1:** Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately.

Decision to Be Made

The authorized officer will select the population control method(s) to be implemented to achieve and maintain the established AML for the NWHR in order to prevent further deterioration of the range resulting from the current overpopulation of wild horses. The Proposed Action does not establish any precedence for future actions with significant effects and does not represent a decision in principle about future considerations. All wild horse actions would be subject to the same environmental assessment standards as well as an independent decision making process.

Scoping and Issue Identification

A scoping letter was sent to 74 interested individuals, groups, and agencies on July 11, 2007. Letters or e-mails were received from 5 individuals during the 30 day comment period. Written responses from 3 of these individuals urged selection of the No Action alternative; one respondent asked for additional information regarding BLM's population data and the

effectiveness of fertility control applied following the December 2003 gather; another urged humane treatment of the animals. The proposed removal of excess wild horses was also discussed with the Air Force and the Nevada Department of Wildlife. Both agencies support the proposed removal of excess wild horses. Copies of the comment letters, and notes from consultation with NDOW, and the Air Force are included in the administrative record. Refer to the Consultation and Coordination section of this EA (page 21) and Appendix G for a more detailed summary of the comments received and how BLM used these comments in preparing this environmental assessment.

The following issues were identified as a result of internal scoping and agency consultation and were used to analyze the alternatives:

1. Impacts to individual wild horses and the herd from proposed capture, removal and handling procedures. Measurement indicators for this issue include:
 - Projected population size and annual growth rate (WinEquus population modeling)
 - Expected impacts to individual wild horses from handling stress
 - Expected impacts to herd social structure
 - Expected effectiveness of proposed fertility control application
 - Potential effects to genetic diversity
 - Potential impacts to animal health and condition
2. Impacts to potentially affected critical and other elements of the human environment (**Vegetation; Wildlife, Migratory Birds, and Special Status Species**) from proposed capture and removal. Measurement indicators for this issue include:
 - Potential for temporary displacement, trampling or disturbance
 - Potential competition for forage and water over time (expected change in actual forage utilization by wild horses)
 - Expected impacts to range condition over time

Issues Not Addressed in this EA

The scope of this environmental assessment is limited to the removal of excess wild horses from the Nevada Wild Horse Range in order to achieve and maintain the AML and protect the range from the deterioration associated with the current overpopulation. Some comments received from the public in response to public scoping are outside the scope of this environmental analysis and were not considered by BLM in preparing this EA (also refer to page 21 and Appendix G). They include:

- Concerns about BLM staffing or budgetary impacts are outside the scope of this analysis. These are administrative issues internal to BLM. When a determination is made that excess wild horses or burros exists, Section 3(b) (2) of the 1971 WFRHBA requires their immediate removal.
- Concerns that herd management area (HMA) boundaries be extended to the original herd area (HA) boundaries or that the appropriate management level (AML) of 300-500 wild horses is too low are also outside the scope of this analysis. Both AML and the HMA's boundary were analyzed in detail in the May 2003 Proposed Nevada Test and Training Range Resource Management Plan and Final Environmental Impact Statement (refer to pages S-5 and S-6, 2-1 to 2-5, 2-10, 2-11, 3-44 to 3-50, and 4-9).

The relevant decision from the July 2004 Record of Decision for this plan (page 14) states: “*Restrict the active management of wild horses to the Herd Management Area (HMA) identified in Figure 2-1 and adjust the Appropriate Management Level (AML) based on military operations mission, data in Appendix F and other uses of the water resources to 300-500 horses within the HMA*). These decisions remain in effect.

Proposed Action and Alternatives

Alternatives

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

- Alternative 1: Proposed Action** – Manage the Breeding Population for a 60% Male/40% Female Sex Ratio/Gather to the Low Point of the AML Range with Fertility Control.
- Alternative 2:** Manage 25% of the Herd as a Non-Breeding Population of Geldings/Gather to the Low Range of AML with Fertility Control.
- Alternative 3: No Action** – Continue Current Management.

The action alternatives (1-2) were developed to meet the Purpose and Need and respond to the identified issues to varying degrees. All the action alternatives are designed to meet the need to remove excess animals in order to protect the range from deterioration associated with overpopulation. The No Action alternative does not meet the Purpose and Need, nor comply with the WFRHBA (as amended). However, it is included as a basis for comparison with the action alternatives. A summary comparison of the impacts of the alternatives is also provided in Table 1 (page 9).

Actions Common to Alternatives 1-2

The following management actions are common to Alternatives 1-2:

- Gather operations would be conducted in accordance with the Standard Operating Procedures (SOPs) described in the Nevada Wild Horse Gather Contract (see Appendix A).
- The helicopter drive method would be used for the December 2007 gather and will include multiple gather sites. Gather sites (traps) will be located in previously disturbed areas. Post-gather, every effort will be made to return released animals to the same general area from which they were gathered. The Contracting Officer’s Representative (COR) will determine the number of animals to be released at each location based on water, forage, and the military’s mission.
- Immunoconceptive research would be conducted. Breeding age mares selected for release back to the range would be treated with Porcine zona pellucidae (PZP) vaccine which would inhibit reproduction of the treated mares for two breeding seasons (see Appendix B for Standard Operating Procedures for the use of PZP vaccine and post-treatment monitoring).
- An Animal and Plant Inspection Service (APHIS) veterinarian may be on-site, as needed, to examine animals and make recommendations to BLM for care and treatment of wild horses. A veterinarian would be consulted prior to euthanasia in accordance with Washington Office Instruction Memorandum (IM) 2006-023 (Appendix C).
- Animals would be removed using a selective removal strategy (Gather Policy and Selective Removal Criteria for Wild Horses, Washington Office IM 2005-206 (Appendix D). Consistent with Dr. Gus Cothran’s recommendations in his June 2004 genetics report for the

Nellis herd, club-footed horses would have a high priority for removal from the herd before they can breed.

- Data including sex and age distribution, reproduction, survival, condition class information (using the Henneke rating system), color, size and other information may also be recorded, along with the disposition of that animal (removed or released).
- Hair samples will be acquired during the next gather (about 2012 to 2014) and approximately every other gather (every 8-10 years) thereafter, to determine whether or not BLMs management is maintaining acceptable genetic diversity (avoiding inbreeding depression).

Descriptions of Alternatives Considered in Detail

Alternative 1: Proposed Action

Under the Proposed Action, about 90-95% of the 1,100-1,120 wild horses currently present would be captured and 800-820 excess animals would be removed beginning in December 2007. Excess wild horses would be transported to Bureau facilities for adoption or long term holding. The Proposed Action would implement a population management strategy for the NWHR in which wild horses would be managed within the established AML range of 300-500 over the next 5-15 year period, as follows:

- Assuming a 90-95% gather efficiency, approximately 300 wild horses will be released back to the range. Of these, about 120 mares would be treated with PZP immunocontraceptive prior to their release. The balance (180 animals) would be studs.
- A breeding population would be maintained with a sex ratio slightly in favor of males as compared to females (60/40 male/female sex ratio).
- The actual number of horses released will depend on the number left on the range (uncaptured) to achieve a total post-gather population of 300-320 wild horses.

Alternative 2:

Alternative 2 is similar to the Proposed Action, however, under Alternative 2, BLM would implement a population management strategy for the NWHR in which wild horses would be managed within the established AML range of 300 to 500 animals over the next 5-15 year period, as follows:

- 150 males would be released back to the range post-gather. Of these, 75 studs would be transported to the nearest available BLM facility and gelded. The gelded animals would be returned to the range in about 6 weeks and managed as a non-breeding population of geldings.
- The balance of the male herd (about 75 males) would be released back to the range and managed as a breeding population.
- 150 females would be released back to the range post-gather; all released mares would be treated with fertility control vaccine prior to their release.
- Sex ratio of the breeding population would be maintained at about 50:50 males/females.

Alternative 3: No Action Alternative

Under this alternative, the HMA would not be gathered immediately and existing management would continue over the next 3-5 year period. If drought conditions persist, included would be continuing to haul water to several locations at an expected cost of about \$12,000 per month. Additionally, weekly site visits to monitor lameness in foals and general herd health would be required, and lame foals would need to be captured and removed from the range for treatment at an estimated cost of about \$500 per foal.

Table 1. Summary Comparison of Impacts of the Alternatives

Item	Alternative 1 (Proposed Action)	Alternative 2	No Action
Approx. Capture #	1100-1120	Same as Alt. 1	0
Approx. Removal #	800-820	Same as Alt. 1	0
Approx. # Mares Treated with Fertility Control	120	150	0
Approx. # Studs to be Gelded (Managed as a Nonbreeding Population)	0	75	0
Approx. # Wild Horses Remaining Post-Gather	300-320	Same as Alt. 1	1100-1120
Genetic Diversity	No impact to genetic diversity is expected under any of the alternatives.		
Vegetation	Localized disturbance at trap site & temporary holding facility locations from 1 to 20 days. Utilization by wild horses would decrease from heavy currently to moderate or less.	Same as Alt. 1	Utilization by wild horses and trampling/disturbance from trailing to/from water and forage escalate over present levels, leading to degraded range conditions.
Wildlife, Migratory Birds and Special Status Species	Short term displacement due to capture activities from 1 to 20 days. Reduced competition for forage and water leading to healthier plants/ rangelands.	Same as Alt. 1	Competition among wildlife and wild horses for available forage and water would escalate as wild horse population size more than doubles over the next 3-5 years.

Alternatives Considered But Eliminated From Further Analysis

Bait and/or Water Trapping

An option considered was relying primarily on water and/or bait trapping as the primary gather/removal method for the NWHR. Due to the size and complexity of the NWHR and herd, bait and/or water trapping would be expected to capture 50% or fewer of the excess wild horses given a similar operations timeframe (20 days) as compared to helicopter drive trapping which would result in capturing about 90-95% of the excess wild horses. As a result, bait and/or water trapping would not achieve the purpose and need and would be in direct conflict with the military's operations mission. Therefore, this alternative was eliminated from detailed analysis in the environmental assessment.

Provide Supplemental Feed and Water

Providing supplemental feed (hay) or hauling water (other than during a short-term emergency situation) does not meet the definition of minimum feasible management and is inconsistent with current law, regulation and policy. Refer to 43 CFR 4710.4.

Change the Current Established AMLs

The current AML of 300-500 wild horses was established in the July 2004 ROD for the Approved Nevada Test and Training Range RMP/FEIS (page 14). Because a gather to remove excess wild horses has not occurred since that time, BLM has not had an opportunity to implement the AML

and monitor its effectiveness. By removing wild horse numbers in excess of the AML, the BLM will have an opportunity to complete additional monitoring over the next five to ten year period and to make adjustments in the AML number (either up or down), if needed, based on resource monitoring results.³ Changing the AML prior to completing the necessary monitoring, in-depth analysis, and compliance with NEPA would be premature, and contrary to law, regulation and policy. Therefore, this alternative was not considered in detail.

Description of the Affected Environment and Environmental Impacts

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

Table 2: Critical Elements of the Human Environment

CRITICAL ELEMENTS	Present	Affected	Rationale
ACECs	NO	NO	Resource not present.
Air Quality	YES	NO	The proposed gather area is not within an area of non-attainment or areas where total suspended particulates exceed Nevada air quality standards. Areas of disturbance would be small and temporary.
Cultural	YES	NO	A number of known cultural resources exist within the NWHR that would be avoided during the gather. Trap sites and holding facilities would be located in areas where previous disturbance has occurred to prevent any effects to cultural resources.
Environmental Justice	NO	NO	The proposed action or alternatives would have no effect on minority or low-income populations.
Floodplains	NO	NO	Resource not present.
Waste (Hazardous or Solid)	NO	NO	Resource not present.
Noxious Weeds	YES	NO	Any noxious weeds or non-native invasive weeds would be avoided when establishing and accessing trap sites and holding facilities to prevent the risk of the spread of noxious weeds.
Native American Religious Concerns	YES	NO	There are no known Native American concerns.
Migratory Birds	YES	NO	Discussed below under wildlife.
Prime or Unique Farmlands	NO	NO	Resource not present.

³ This approach is consistent with the Interior Board of Land Appeals ruling (109 IBLA 120) which states: “We note that the Secretary, in his June 1981 letter, indicates that an appropriate determination of the number of wild horses to be permitted on the public range, consistent with Section 3(b) of the Act, requires relying on an intensive monitoring program involving studies of grazing utilization, trend in range condition, actual use and climatic factors...”

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Riparian-Wetland Zones	YES	NO	Riparian-wetland zones would be avoided when establishing trap site locations. No impacts to riparian-wetland zones are expected as a result of the proposed capture, handling and removal operations.
T&E Species	NO	YES	No known threatened and endangered species occur within the boundaries of the NWHR within the NTTR. However, special status species including Burrowing Owl, Sage grouse, and Desert bighorn sheep are present and would be potentially affected by the Proposed Action. Refer to discussion under wildlife below.
Water Quality	YES	NO	Water locations would be avoided when establishing trap site locations. No impacts to water quality are expected as a result of the proposed capture, handling and removal operations.
Wild and Scenic Rivers	NO	NO	Resource not present.
Wilderness and Wilderness Study Area	NO	NO	Resource not present.

Table 3: Other Resources Checklist

OTHER RESOURCES	Present	Affected	Rationale
Fire Management	YES	NO	Resource is not affected by the proposed action or alternatives.
Forestry and Woodland	YES	NO	Resource is not affected by the proposed action or alternatives.
Land Use Authorizations	YES	NO	Resource is not affected by the proposed action or alternatives.
Livestock Management	NO	NO	Resource not present. No livestock use is authorized within the NWHR.
Minerals	YES	NO	Resource is not affected by the proposed action or alternatives.
Paleontology	YES	NO	Resource is not affected by the proposed action or alternatives.
Rangeland Vegetation Resources	YES	YES	Discussed below under vegetation.
Recreation	NO	NO	Resource not present.
Socioeconomics	YES	NO	Resource is not affected by the proposed action or alternatives.
Soils	YES	YES	Trap sites would be located in previously disturbed areas and limited to less than 1 acre in size. Soil disturbance at these locations would be temporary (1-20 days). Except for temporary and localized disturbance at the trap sites, this resource is not affected.
Visual Resources	YES	NO	No visual impacts would occur because this action is temporary.
Wild Horses and Burros	YES	YES	Discussed below under wild horses.
Wildlife	YES	YES	Discussed below under wildlife.

The following critical or other elements of the human environment are present and may have potential to be affected by the Proposed Action or the alternatives: **Wild Horses; Vegetation; Wildlife, Migratory Birds, and Special Status Species.** The existing situation (affected environment) and direct and indirect impacts to these resources which would result with implementation of the Proposed Action and alternatives are discussed in detail below.

Wild Horses

Affected Environment

The last scheduled removal of excess wild horses from the NWHR was completed in December 2003. An estimated 600 animals (232 males and 368 females) remained post-gather. All release mares were given a fertility control vaccine prior to their release. At the present time, aerial census on the NWHR (together with adjustments for the 178 head emergency removal and deaths of 71 wild horses in July 2007) estimates the current population at 1,100-1,120 head (3.7 times the low range of the AML). This data indicates an average annual population increase of 22% over the last four year period. Prior to treatment with fertility control in December 2003, aerial census data suggested an annual population increase of 24%.

Genetic analysis of the Nellis herd was completed in June 2004⁴. This data indicates that while individual variability in the Nellis herd is low, population diversity is very high (genetic variability, $H_o = .344$). Genetic similarity (S) is highest within the Heavy Draft horse breeds, with strong evidence of some Spanish horse background. The Nellis herd has its greatest similarity with the Stone Cabin wild horse herd. Additionally, there is a high incidence of club footed horses within the Nellis population; this condition may be attributable to a recessive gene within the breeding population.

Continuing drought is limiting the amount of water available for wild horse use. Of the five key water sources used by wild horses, Cedar Well and the north gate pond are completely dry; water at Cactus Spring and Silverbow is very low. As a result, the Air Force has been supplementing water at several locations since July 2005. This has resulted in heavy-severe use within ½ mile of the available water sources and heavy use in a ½-3 mile circumference of the available water. Due to the lack of winter moisture, utilization by wild horses has continued to concentrate on about 1/3 of their summer range with minimal use of their winter range during the last three year period. Presently wild horses are traveling 2-8 miles to obtain forage and water, which is leading to observations of increasing lameness, particularly in foals.

Environmental Impacts

Impacts Common to All Alternatives

Population modeling using the WinEquus program, developed by Dr. Steven Jenkins at the University of Nevada at Reno, was completed to analyze possible differences that could occur to the wild horse populations between the Proposed Action, Alternative 2, and No Action (no removal). One objective of the modeling was to identify if any of the alternatives “crash” the population or cause extremely low population numbers or growth rates. Minimum population levels and growth rates were found to be within reasonable levels and adverse impacts to the

⁴ Genetic Analysis of the feral horse herd from the Nevada Test and Training Range (Nellis), E. Gus Cothran, June 23, 2004, Department of Veterinary Science, University of Kentucky, Lexington, KY 40546-0076 (copy on file in the Las Vegas Field Office).

population are not likely. Table 4 summarizes the average population size, average growth rate, next projected gather year and estimated number to remove for the median trials for each alternative based on population modeling (refer to Appendix E for additional information).

Table 4. Average Population Size, Growth Rates, Next Projected Gather Year

Alternative	Average Population Size (6 years)	Average Growth Rate Next 5 Years (%)	Next Projected Gather (Year)	Estimated Number to Remove (Next Gather)
Alternative 1 - Proposed Action (Gather to Low AML/Apply Fertility Control)	552	8.7%	2014	252
Alternative 2 (Gather to Low AML/Apply Fertility Control/ Manage 25% of the Population as Geldings)	588 ⁵	10.7%	2013	288
Alternative 3 – No Action (No Removal)	1,855	19.9%	2011	1,555

Impacts Common to Alternatives 1 and 2

Direct impacts to individual wild horses as a result of the proposed gather and removal operation includes the handling stress associated with these activities. Traumatic injuries that may occur typically involve biting and/or kicking that may result 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 intensity of these impacts varies by individual, and is indicated by behaviors ranging from nervous agitation to physical distress. Mortality of individuals from these impacts is infrequent but may occur in one half to one percent of horses gathered in a given removal operation (national BLM statistics). Implementation of SOPs would help minimize direct impacts to animals.

Direct impacts to the wild horse herd’s social structure as a result of the proposed gather, handling and removal operation include the temporary separation of foals from their mothers, and mixing and separation of individual bands. These impacts would be short-term (from a few hours to a few weeks) and would disappear within a few weeks following the gather as bands reform.

The indirect effect of removing 800-820 excess wild horses before range conditions deteriorate further would be decreased competition among the remaining animals for the available water and forage. This should result in improved wild horse health and body condition, especially mares and foals. Prioritizing removal of club footed horses (which may be related to a recessive gene in these animals) would be expected to limit the spread of this condition.

Alternatives 1 and 2 would treat approximately 120-150 mares released back to the range with two-year immunocontraceptive (PZP) vaccine. This vaccine has shown effectiveness of 94% in year one, 82% in year two and 68% in year 3. Refer to Table 4 above for projected results based on population modeling (effect on population size and annual growth rates). Reduced reproduction rates would be expected to extend the time interval between gathers and reduce disturbance to individual animals as well as herd social structure over the foreseeable future.

⁵ Number includes 70-75 geldings.

Anecdotal information (field observations) suggests one potential indirect impact of applying fertility control may be compensatory reproduction in year two or three which could offset the benefits of fertility control application in year one; as a result, population monitoring in years 2-4 following the December 2007 gather would be completed to provide additional data as part of BLM's ongoing fertility control research program.

No impact to genetic diversity would be expected as a result of the action alternatives. The post-gather breeding population of about 225-300 wild horses would be large enough to avoid the risk of inbreeding over the long-term (i.e. research in domestic horse populations indicates inbreeding potential may increase at very low population levels). However, even in small wild horse populations, Dr. Francis J. Singer indicates there is little imminent risk of inbreeding (loss of genetic diversity) since most wild horse herds which have been evaluated to date are genetically diverse and genetic resources are lost slowly over periods of many generations.⁶ Moreover, Dr. Singer recommends introducing "only one to two breeding animals per generation...would maintain the genetic resources in small populations...obviating the need for larger populations in all cases."

Direct and indirect impacts specific to the NWHR herd as a result of these actions are discussed below.

Alternative 1: Proposed Action

The direct impacts of the Proposed Action would include capturing about 1,100-1,120 animals, removing 800-820 head, and releasing 300 back to the range following the gather. Under the Proposed Action, managing for a 60% male/40% female sex ratio would encourage more harems to form (i.e. increase the number of breeding animals in the population), which would further minimize the potential risk for inbreeding over the next 4-5 year period.

Alternative 2:

The direct impacts of Alternative 2 would be similar to Alternative 1 (Proposed Action). However, 150 mares would be released post-gather as compared to 120 mares under the Proposed Action. As a result, projected annual growth rates are higher for this alternative than for the Proposed Action (10.7% as compared to 8.7%). One additional difference is that of the 150 males released back to the range following the gather, 75 studs would first be transported to a BLM facility and gelded, then returned to the range in about 6 weeks. This would result in managing a nonbreeding population of 75 animals (geldings) within the NWHR over the next five to fifteen years which should result in placing fewer animals in BLM holding facilities; this could result in potential savings to the program of about \$25,000 per year over the next 5-15 year period.

The balance of the herd (225-425 animals) would be managed as a breeding population. However, the number of harems formed (i.e. the number of breeding animals) would be fewer; therefore, it would have fewer benefits than the Proposed Action in terms of promoting genetic interchange over the next 5-15 year period. A potential indirect impact of gelding would be increased risk for these animals to pick up an infectious disease at the BLM facility and transmit it to the on-the-range population. This potential effect would be minimized by isolating the animals and having a veterinarian observe them for disease prior to their release back to the range.

⁶ Resource Note 29 at <http://www.blm.gov/nstc/resourcenotes/resnotes.html>

Alternative 3: No Action Alternative

The direct impact of this alternative is that no wild horses would be removed at this time, nor would fertility control treatment be implemented. As a result, wild horses would not be subject to any individual direct or indirect impacts described in the Proposed Action as a result of a gather operation. In the absence of a gather over the next 3-6 years, population size would be expected to more than double to a projected 2,780 wild horses. This would lead to range degradation to the extent that both rangeland and wild horse herd health would be threatened. Competition for the available forage and water resources would escalate, and individual wild horses (particularly mares with foals) would be at risk of death from thirst or starvation. Social stress would also escalate as animals fight to protect their position at scarce water sources. Potential for injuries to all age classes of animals would increase. The need for a number of emergency removals to prevent individual animals from death or suffering would be expected as a result.

Vegetation

Affected Environment

Vegetation varies from salt desert shrub communities at lower elevations, to low and big sagebrush/grass communities at higher elevations. The lower elevations are comprised of salt tolerant plants such as bud sagebrush (*Picrothamnus desertorum*), shadscale (*Atriplex confertifolia*) and baileys and black greasewood (*Sarcobatus spp.*). Mid-elevations and alluvial fans consist of Wyoming big sagebrush (*Artemisia tridentate wyomingensis*) or black sagebrush (*Artemisia nova*), with an understory of Indian ricegrass (*Achnatherum hymenoides*), Sandberg's bluegrass (*Poa secunda*), and bottlebrush squirreltail (*Elymus elmiodes*). Within the mid and higher elevations, there is an occurrence of Utah juniper (*Juniperus osteosperma*) and pinyon (*Pinus edulis*). The higher elevation sites are comprised of mountain big sagebrush (*Artemisia tridentate vaseyana*) and bluebunch wheatgrass (*Pseudoroegneria spicata*).

At the present time, utilization by wild horses of the available forage is mostly heavy within a 1-3 mile circumference of the available water. Trailing to/from water (vegetation trampling/disturbance) is increasing as wild horses travel greater distance from water to find food.

Environmental Impacts

Impacts Common to Alternatives 1 and 2

Under the action alternatives (Alternatives 1 and 2), the direct impacts to vegetation would include short-term (1 to 20 days) disturbance of native vegetation immediately in and around temporary trap sites, and holding and processing facilities. Impacts could be by vehicle traffic and the hoof action of penned wild horses, and could be locally severe in the immediate vicinity of the corrals or holding facilities. Generally, these activity sites would be small (less than one half acre) in size. Since most trap sites and holding facilities would be re-used during recurring wild horse gather operations (every 4-6 years), any impacts would remain site-specific and isolated in nature. In addition, most trap sites or holding facilities are selected to enable easy access by transportation vehicles and logistical support equipment and would generally be adjacent to or on roads, pullouts, water haul sites, or other flat spots that were previously disturbed.

Indirect impacts from gathering to the low point of the AML range include reduced trailing by wild horses (less vegetation trampling/disturbance) as they travel to/from water and forage. Actual forage utilization by wild horses would also be reduced from heavy (61+% of annual

year's growth) at the present time to moderate or less (<40-60%) within a 1-3 mile circumference of the available water. Reduced forage utilization would promote vegetation re-growth and provide for natural recovery of overgrazed plants. Decreased competition between wild horses and wildlife for the available forage and water would also be expected. Over the longer term (5-15 years), managing the wild horse population within the AML range of 300-500 horses would result in healthier plants better able to withstand grazing pressure from wild horses and wildlife, especially during periods of drought.

Alternative 3: No Action Alternative

Under the No Action alternative, wild horse populations would remain above AML; increased trailing (vegetation trampling/disturbance) and heavy to excessive utilization of forage and water resources would result. Over the longer term (next 1-5 years), areas of heavy to excessive utilization would expand, resulting in loss of vigor and productivity of key forage plants. Over time, overpopulation of wild horses would lead to elimination of many of the key forage and browse species from the range. Eventually, long-term rangeland health would be jeopardized.

Wildlife, Migratory Birds, and Special Status Species

Affected Environment

The mosaic of plant communities and topographic features found on the NWHR supports a wide variety of wildlife species that use the habitats within the NWHR for resting, courtship, foraging, travel, supplies of food and water, thermal protection, escape cover and reproduction. For a detailed list of species found within the Nevada Wild Horse Range, please refer to the Proposed Nevada Test & Training Range RMP/FEIS dated May 2003. Numerous avian fauna, bats, reptilian, amphibian, invertebrates and other wildlife species are present within the NWHR.

There are no known Threatened and Endangered Species within the NWHR. However, special status species (BLM sensitive wildlife species) are present. These include: western burrowing owl (*Athene cunicularia*), Greater Sage-grouse (*Centrocercus urophasianus*) and Desert bighorn sheep (*Ovis canadensis nelsoni*). Burrowing owl is a migrant and resident species in open, dry, grassland and Mojave desert-scrub, sagebrush/perennial grassland, and open scrub stages of pinyon-juniper and mixed conifer habitats. Past surveys conducted by the Nevada Department of Wildlife (NDOW) and BLM yield observations of sage grouse in the northern part of the NWHR in northeast Cactus Flat and between Silverbox and Cedar Pass Road. Desert bighorn sheep are found year-round and occupy Stonewall Mountain, the Cactus Range, Mount Helen and the rim county (Clivet Cat and Packrat Canyon) areas between Stonewall Mountain and the Cactus Range, as well as the western rim of Pahute Mesa between Stonewall Mountain and Tolicha Peak and the area bounded by Tolicha Peak, Black Mountain and Thirsty Canyon. They use a variety of habitat types, including sagebrush, black sagebrush, low desert shrubs, open pinyon-juniper woodlands and blackbrush.

Most birds are protected by the Migratory Bird Treaty Act of 1918 and subsequent amendments (16 U.S.C. 703-711), that makes it unlawful to take, kill, or possess migratory birds. A list of those protected birds can be found in 50 CFR 10.13. Raptors (birds of prey) occur and breed throughout the area and are not protected under the ESA and are not species of concern. These raptors, however, are protected by the federal government under the Migratory Bird Treaty Act and by the State of Nevada. Raptors include all vultures, hawks, kites, eagles, ospreys, falcons, and owls. Since these birds occupy high trophic levels of the food chain, they are regarded as sensitive indicators of ecosystem stability and health.

Environmental Impacts

Impacts Common to Alternatives 1 and 2

Direct impacts to wildlife would include temporary displacement (from 1-20 days) during capture operations as a result of the increased activity associated with trap setup, and helicopter and vehicle traffic. The indirect impact of reducing wild horse numbers to within the established AML range of 300-500 animals would be decreased disturbance associated with wild horses and reduced competition between wild horses and wildlife for available forage and water resources as soon as the gather is completed. Over the next 5-15 years, decreased forage utilization by wild horses should lead to healthier plants and improved range condition, especially for Desert bighorn sheep.

Alternative 2:

The portion of the population managed as geldings would be expected to form small bands similar to bachelor bands but without the individual and social behavior exhibited by young bachelors. This should result in less displacement or disturbance to wildlife over the next 1-15 years.

Alternative 3: No Action Alternative

Wildlife would not be temporarily displaced or disturbed under the No Action alternative. However, there would be continued competition with wild horses for limited water and forage resources. This competition would increase as wild horse numbers continued to increase annually. Wild horses are aggressive around water sources, and some wildlife species may not be able to compete successfully. The competition for resources may lead to increased stress or dislocation of native wildlife species. Additionally, increased competition between wild horses and wildlife species for the new growth important for plants to make and store carbohydrates and for promoting long-term vegetation recovery could negatively impact vegetation recovery and encourage non-native or invasive plants to become established. This could result in deteriorated habitat conditions for native wildlife over the longer term.

Cumulative Impacts

The National Environmental Policy Act (NEPA) regulations define cumulative impacts as impacts on the environment that result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The **area of potential effect** for the purposes of evaluating cumulative impacts is the 1.3 million acre Nevada Wild Horse Range (Map 1).

According to the 1994 BLM *Guidelines for Assessing and Documenting Cumulative Impacts*, the cumulative analysis should be focused on those issues and resource values identified during scoping that are of major importance. Accordingly, the issues of major importance to be analyzed are: **Wild Horses** and **Vegetation**. Wildlife will not be analyzed as an issue because potential cumulative impacts to wildlife are a function of the wild horse population size and their direct, indirect and cumulative impact on vegetation quantity and quality.

Wild Horses

Past

The Nevada Wild Horse Range was established in 1962 by a Cooperative Agreement with the Commander, Nellis Air Force Base and the State Director, Nevada Bureau of Land Management. Through land use planning, the entire 1.3 million acre NWHR was designated as a herd management area (HMA) suitable for the long-term management of wild horses. In 1991, the appropriate management level of wild horses was established as 1,000 wild horses through BLM decision; this decision was later modified in 1997 to provide for a population range of 600-1,000 wild horses.

Thousands of wild horses grazed the NWHR over the past two decades. Supplementing water for wild horses has also been common in the past in order to support numbers of wild horses in excess of the current established AML. A number of emergency removals (due to lack of forage and water) have also occurred in order to prevent the death of individual animals from thirst or starvation. Past gathers have led to the representation of age and sex classes and the degree of genetic diversity evident in the Nellis herd today.

Present

Today, management of the NWHR is guided by the July 2004 Approved Nevada Test & Training Range RMP/EIS and ROD. AML was adjusted through this decision to a population range of 300-500 wild horses based on detailed analysis of available water, the military's operations mission, and other uses of the water resources. At present, the NWHR has an estimated population of 1,100-1,120 wild horses. The current sex ratio of males/females is within the expected range (40-60% in favor of either males or females) with young, middle and older age class animals well represented.

Under the law, BLM is required to remove excess animals immediately once a determination has been made that excess animals are present. Program goals have expanded beyond establishing a "*thriving natural ecological balance*" (i.e. establishing AML for individual herds), to achieving/maintaining population size within the established AML as well as managing for healthy, self sustaining wild horse (or burro) populations. The destruction of healthy excess animals is prohibited; adoptions or sales⁷ or placement of excess wild horses and burros in long term holding are the primary means for caring for the animals removed from the range. The focus of wild horse and burro management has also expanded to place emphasis on achieving rangeland health as measured through the standards and guidelines for rangeland health and healthy wild horse and burro populations developed by the Mojave Southern Great Basin Resource Advisory Council (RAC).

Implementation of the Proposed Action and Alternative 2 would slow wild horse population growth through the application of fertility control; this would have the effect of extending the time until another wild horse gather would be needed. The Proposed Action would encourage greater genetic interchange than Alternative 2 by managing for a sex ratio of 60/40 males/females. Both alternatives would manage toward a relatively even distribution of age classes over a 4-5 year gather cycle.

⁷ Under authority provided by the Congress of the United States in December 2003, sales of excess animals to individuals who can provide the animals with a good home are limited to animals over age 10 or that have been offered unsuccessfully for adoption three times.

AML for wild horses would not be achieved over the next 3-6 years with implementation of the No Action Alternative (Alternative 3). An opportunity to implement fertility control to slow annual wild horse population growth would be foregone.

Reasonably Foreseeable Future Actions

A reasonably foreseeable future action is additional environmental testing in an effort to better determine the source and extent of nitrates which are the probable cause of death of 71 wild horses at a pond in the northwest corner of the NWHR in late July 2007. Other related future actions could include continued water hauling to provide off site water to wild horses in this location, removal of the temporary fencing currently installed around the pond and possible replacement with permanent fencing, or other mitigation measures, as indicated by the results of the further testing.

Future wild horse gathers would be conducted about every 4-6 years over the next 5-15 year period in order to continue to manage the NWHR within the AML range of 300-500 wild horses. Under the Proposed Action (Alternative 1), the population would reach the high limit of AML in about 2014, while under Alternative 2 the high limit of AML would be reached in about 2013. Approximately 200-250 excess wild horses would be removed at that time. Fertility control would also be applied in an effort to continue to slow population growth. Cumulatively over the next 5-15 years, these actions should result in fewer gathers and beneficial effects to individual wild horses and the herd's social structure due to less frequent disturbance.

Under the No Action alternative, wild horse population size would more than double over the next 4-6 years to as many as 2,780 animals. A number of emergency removals could be expected in order to prevent individual animals from suffering or death due to lack of forage and water. Increased stress and disturbance to the herd's social structure would be expected and the military's operations mission would be negatively impacted.

Any future proposed projects within the NWHR would be analyzed in an appropriate environmental document following site specific planning. Future project planning would also include public involvement.

Vegetation

Past

Forage utilization during the 1980's and 1990's when thousands of wild horses grazed the NWHR was severe (80+% of current year's growth); as a result of severe forage utilization, upland habitats exhibited large areas of bare ground; key forage species were absent or so heavily utilized they were unnoticeable; riparian habitats were denuded.

Present

As a result of reduced wild horse numbers over the past decade, upland vegetation and riparian conditions have improved to the extent that areas of bare ground are mostly absent and areas of heavy forage utilization are limited to a 1-3 mile circumference of the available water. Water continues to be a limiting factor on the NWHR; of the five key water sources used by wild horses, Cedar Well and the north gate pond are completely dry; water at Cactus Spring and Silverbow is very low. As a result, the Air Force has been supplementing water at several locations since July 2005.

Implementation of both the Proposed Action and Alternative 2 would reduce wild horse population size to within the established AML range; as a result, actual forage utilization by wild horses should decrease from heavy (61+%) presently to moderate (<60%) over the next 1-4 years. Competition between wild horses and other users of vegetation and water resources would be reduced over the current level. The need to provide supplemental water (water hauling) for wild horses should be eliminated as the wild horse population would be in balance with the available water.

Under the No Action alternative, population numbers would continue to exceed AML and competition between wild horses and other users for vegetation and water resources would increase. Vegetation conditions would continue to deteriorate.

Reasonably Foreseeable Future Actions

Cumulatively over the next 5-15 year period, continuing to manage wild horses within the established AML range would result in improved vegetation condition (i.e. forage availability and quantity), which in turn would positively impact wildlife and the wild horse population.

Under the No Action Alternative, the wild horse population would be expected to more than double in size, to as many as 2,780 animals over the next 4-6 years, with negative impacts to vegetation resources.

Summary of Past, Present, and Reasonably Foreseeable Future Actions (Cumulative Impacts)

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

Direct cumulative impacts of the No Action alternative coupled with impacts from past, present, and reasonably foreseeable future actions would result in foregoing an opportunity to improve rangeland health and to properly manage wild horses in balance with the available water and forage. As a result, the No Action Alternative, in conjunction with many of the past, present and reasonably foreseeable future actions would result in non-attainment of RMP objectives and Standards for Rangeland Health and Wild Horse and Burro Populations.

This combination of the past, present and reasonably foreseeable future actions, along with implementation of the Proposed Action, should result in more stable wild horse populations, healthier rangelands, healthier wild horses, and fewer multiple use conflicts within the NWHR over the short and long-term.

Mitigation Measures and Suggested Monitoring

BLM would continue to monitor the NWHR post-gather. Included would be conducting the necessary monitoring to periodically evaluate the effects of grazing use by wild horses and wildlife, and determine if progress is being made toward the attainment of Standards for Rangeland Health. Monitoring would be in accordance with BLM policy as outlined in the *Nevada Rangeland Monitoring Handbook* and other BLM technical references. Data would be collected which would assist BLM in determining whether the existing AML is appropriate or needs future adjustment (either up or down). Other data collected would include observations of

animal health and condition, climate (precipitation), grazing utilization and animal distribution, population census, range condition and trend, among other items.

Population monitoring in Year 2-4 following the December 2007 would be completed as described in Appendix B to evaluate the effectiveness of fertility control application.

Hair samples would be collected during the next Nellis gather (about 2012 to 2014) and every 8-10 years thereafter to determine if there is a change in the baseline genetic variability (Ho). Should future genetics testing indicate there is a reduction in genetic variability (Ho is less than .344), 1 to 4 mares (ages 1-3) from the Stone Cabin wild horse herd would be introduced into the Nellis herd during the next gather and every generation (8-10 years) thereafter in order to maintain/improve genetic diversity.

Proven mitigation and monitoring are incorporated into the Proposed Action through standard operating procedures (SOPs) which have been developed over time. These SOPs (Appendix A and B) represent the "best methods" for reducing impacts associated with gathering, handling, transporting and collecting herd data, and application of fertility control.

Consultation and Coordination

Public hearings are held annually on a state-wide basis regarding the use of helicopters and motorized vehicles to capture wild horses (or burros). During these meetings, the public is given the opportunity to present new information and to voice any concerns regarding the use of these methods to capture wild horses (or burros). The Nevada BLM State Office held a meeting on May 16, 2007; 2 oral comments, 8 written comments and approximately 120 e-mail comments were entered into the record for this hearing. Specific concerns included: (1) the use of helicopters and motorized vehicles is inhumane and results in injury or death to significant numbers of wild horses and burros; (2) bait and/or water trapping or removal by horseback are more humane methods of removal; (3) misconduct by gather contractors or others must be immediately corrected. One commenter commended BLM for the safe, effective, and humane use of helicopters and motorized vehicles to capture and transport wild horses and burros.

Based on the number of concerns expressed with respect to the use of helicopters and motorized vehicles, BLM thoroughly reviewed the Standard Operating Procedures to assure that all necessary measures are in place to humanely capture, handle and transport Nevada's wild horses and burros during the upcoming gather season. No changes to the SOPs were indicated based on this review.

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

Appendix F includes a list of the individuals, groups and agencies who were notified of the proposed action by letter dated July 11, 2007, requesting any concerns, data or information BLM should consider in preparing the preliminary EA. In response to public scoping, a total of 5 letters or e-mails were received. Many of these comments contained overlapping issues/concerns which have been consolidated into 14 areas of comment. Refer to Appendix G which summarizes

these comments and describes how BLM used these comments in preparing this environmental assessment.

List of Preparers

Jerrie Bertola	Wild Horse Specialist, LVFO
Susie Stokke	Wild Horse Specialist, Nevada State BLM Office
Christina Lund	Vegetation, LVFO
Marc Maynard	Wildlife/T&E/Special Status Species, LVFO
Mark Slaughter	Wildlife/T&E/Special Status Species, LVFO
Susanne Rowe	Archaeology and Cultural Resources, LVFO
Michael N. Johnson	Planning and Environmental Coordination, LVFO
Jeff Steinmetz	Planning and Environmental Coordination, LVFO
Patrick Putnam	Assistant Field Manager, Recreation and Renewable Resources, LVFO

Appendices

Appendix A - Standard Operating Procedures (Gather Operation)

Appendix B - Standard Operating Procedures (Fertility Control Treatment)

Appendix C - Euthanasia Policy

Appendix D - Selective Removal Criteria

Appendix E - Population Modeling

Appendix F - List of Interested Individuals, Groups and Agencies Contacted

Appendix G – Detailed Summary of Public Scoping

Appendix A

Standard Operating Procedures (Gather Operation)

Gathers would be conducted by utilizing contractors from the Wild Horse and Burro Gathers-Western States Contract, or BLM personnel. The following procedures for gathering and handling wild horses and burros would apply whether a contractor or BLM personnel conduct a gather. For helicopter gathers conducted by BLM personnel, gather operations will be conducted in conformance with the *Wild Horse and Burro Aviation Management Handbook* (March 2000).

Prior to any gathering operation, the BLM will provide for a pre-capture evaluation of existing conditions in the gather area(s). The evaluation will include animal conditions, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with wilderness boundaries, the location of fences, other physical barriers, and acceptable trap locations in relation to animal distribution. The evaluation will determine whether the proposed activities will necessitate the presence of a veterinarian during operations. If it is determined that capture operations necessitate the services of a veterinarian, one would be obtained before the capture would proceed. The contractor will be apprised of all conditions and will be given instructions regarding the capture and handling of animals to ensure their health and welfare is protected.

Trap sites and temporary holding sites will be located to reduce the likelihood of undue injury and stress to the animals, and to minimize potential damage to the natural resources of the area. These sites would be located on or near existing roads.

The primary capture methods used in the performance of gather operations include:

1. Helicopter Drive Trapping. This capture method involves utilizing a helicopter to herd wild horses and burros into a temporary trap.
2. Helicopter Assisted Roping. This capture method involves utilizing a helicopter to herd wild horses or burros to ropers.
3. Bait Trapping. This capture method involves utilizing bait (water or feed) to lure wild horses and burros into a temporary trap.

The following procedures and stipulations will be followed to ensure the welfare, safety and humane treatment of wild horses and burros in accordance with the provisions of 43 CFR 4700.

A. Capture Methods used in the Performance of Gather Contract Operations

1. The primary concern of the contractor is the safe and humane handling of all animals captured. All capture attempts shall incorporate the following:

All trap and holding facilities locations must be approved by the Contracting Officer's Representative (COR) and/or the Project Inspector (PI) prior to construction. The Contractor may also be required to change or move trap locations as determined by the COR/PI. All traps and holding facilities not located on public land must have prior written approval of the landowner.

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

and other factors.

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, plywood, metal without holes.
 - 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 fly chute to restrain, age, or provide additional care for the animals shall be placed in the runway in a manner as instructed by or in concurrence with the COR/PI.
 - 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, plastic snow fence, 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
 - e. All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking gates.
4. No modification of existing fences will be made without authorization from the COR/PI. The Contractor 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 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, sex, or other necessary procedures. In these instances, a portable restraining chute may be necessary and will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering requires that 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 COR.

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. An animal that is held at a temporary holding facility after 5:00 p.m. and on through the night, is defined as a horse/burro feed day. An animal that is held for only a portion of a day and is shipped or released does not constitute a feed day.
8. It is the responsibility of the Contractor to provide security to prevent loss, injury or death of captured animals until delivery to final destination.
9. The Contractor shall restrain sick or injured animals if treatment is necessary. The COR/PI will determine if injured animals must be destroyed and provide for destruction of such animals. The Contractor may be required to humanely euthanize animals in the field and to dispose of the carcasses as directed by the COR/PI.
10. Animals shall be transported to final destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the COR/PI for unusual circumstances. Animals to be released back into the HMA following gather operations may be held up to 21 days or as directed by the COR/PI. Animals shall not be held in traps and/or temporary holding facilities on days when there is no work being conducted except as specified by the COR/PI. 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 COR. 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 COR.

B. CAPTURE METHODS THAT MAY BE USED IN THE PERFORMANCE OF A GATHER

1. Capture attempts may be accomplished by utilizing bait (feed or water) to lure animals into a temporary trap. If the contractor selects this method 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 COR/PI prior to capture of animals.
 - c. Traps shall be checked a minimum of once every 10 hours.
2. Capture attempts may be accomplished by utilizing a helicopter to drive animals into a temporary trap. If the contractor selects this method 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

COR/PI. Under no circumstances shall animals be tied down for more than one hour.

- b. The contractor shall assure that foals shall not be left behind, and orphaned.
3. Capture attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If the contractor with the approval of the COR/PI selects this method the following applies:
 - a. Under no circumstances shall animals be tied down for more than one hour.
 - b. The contractor shall assure that foals shall not be left behind, or orphaned.
 - c. The rate of movement and distance the animals travel shall not exceed limitations set by the COR/PI who will consider terrain, physical barriers, weather, condition of the animals and other factors.

C. USE OF 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 COR/PI 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 COR/PI.
5. Floors of tractor-trailers, stock trailers and loading chutes 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 COR/PI 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 square feet per adult horse (1.4 linear foot in an 8 foot wide trailer);
- 8 square feet per adult burro (1.0 linear foot in an 8 foot wide trailer);
- 6 square feet per horse foal (.75 linear foot in an 8 foot wide trailer);
- 4 square feet per burro foal (.50 linear feet in an 8 foot wide trailer).

7. The COR/PI shall consider the condition and size of the animals, weather conditions, distance to be transported, or other factors when planning for the movement of captured animals. The COR/PI shall provide for any brand and/or inspection services required for the captured animals.
8. If the COR/PI determines that dust conditions are such that the animals could be endangered during transportation, the Contractor will be instructed to adjust speed.

D. SAFETY AND COMMUNICATIONS

1. The Contractor shall have the means to communicate with the COR/PI 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 contracting officer or COR/PI 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 Contracting Officer or his/her representative.
 - b. The Contractor shall obtain the necessary FCC licenses for the radio system
 - c. All accidents occurring during the performance of any task order shall be immediately reported to the COR/PI.
2. Should the contractor choose to utilize a helicopter 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 animals.

G. SITE CLEARANCES

Personnel working at gather sites will be advised of the illegality of collecting artifacts.

Prior to setting up a trap or temporary holding facility, BLM will conduct all necessary clearances (archaeological, T&E, etc). All proposed site(s) must be inspected by a government archaeologist. Once archaeological clearance has been obtained, the trap or temporary holding facility may be set up. Said clearance shall be arranged for by the COR, PI, or other BLM employees.

Gather sites and temporary holding facilities would not be constructed on wetlands or riparian zones.

H. 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.

I. PUBLIC PARTICIPATION

Opportunities for public viewing (i.e. media, interested public) of gather operations will be made available to the extent possible, however, the primary consideration will be to protect the health and welfare of the animals being gathered. The public must adhere to guidance from the on site BLM representative. 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 authorized 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.

J. RESPONSIBILITY AND LINES OF COMMUNICATION

Las Vegas Field Office - Contracting Officer's Representative/Project Inspector

Jerrie Bertola

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 Las Vegas Assistant Field Manager for Recreation and Renewable and the Las Vegas 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, PVC Corral and Ridgecrest 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 BLM 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.

Appendix B

Standard Operating Procedures (Fertility Control Treatment)

The following management and monitoring requirements are part of the Proposed Action:

- PZP vaccine would be administered by trained BLM personnel.
- The fertility control drug is administered with two separate injections: (1) a liquid dose of PZP is administered using an 18 gauge needle primarily by hand injection; (2) the pellets are preloaded into a 14 gauge needle. These are loaded on the end of a trocar (dry syringe with a metal rod) which is loaded into the jabstick which then pushes the pellets into the breeding mares being returned to the range. The pellets and liquid are designed to release the PZP over time similar to a time release cold capsule.
- Delivery of the vaccine would be as an intramuscular injection while the mares are restrained in a working chute. 0.5 cubic centimeters (cc) of the PZP vaccine would be emulsified with 0.5 cc of adjuvant (a compound that stimulates antibody production) and loaded into the delivery system. The pellets would be loaded into the jabstick for the second injection. With each injection, the liquid and pellets would be propelled into the left hind quarters of the mare, just below the imaginary line that connects the point of the hip and the point of the buttocks.
- All treated mares would be freeze-marked on the hip to enable researchers to positively identify the animals during the research project as part of the data collection phase.
- At a minimum, monitoring of reproductive rates using helicopter flyovers will be conducted in years 2 through 4 by checking for presence/absence of foals. The flight scheduled for year 4 will also assist in determining the percentage of mares that have returned to fertility. In addition, field monitoring will be routinely conducted as part of other regular ground-based monitoring activities.
- A field data sheet will be used by the field applicators to record all the pertinent data relating to identification of the mare (including a photograph when possible), date of treatment, type of treatment (1 or 2 year vaccine, adjuvant used) and HMA, etc. The original form with the data sheets will be forwarded to the authorized officer at NPO (Reno, Nevada). A copy of the form and data sheets and any photos taken will be maintained at the field office.
- A tracking system will be maintained by NPO detailing the quantity of PZP issued, the quantity used, disposition of any unused PZP, the number of treated mares by HMA, field office, and state along with the freeze-mark applied by HMA.
- The field office will assure that treated mares do not enter the adoption market for three years following treatment. In the rare instance, due to unforeseen circumstance, treated mare(s) are removed from an HMA before three years has lapsed, they will be maintained in either a BLM facility or a BLM-contracted long term holding facility until expiration of the three year holding period. In the event it is necessary to remove treated mares, their removal and disposition will be coordinated through NPO. After expiration of the three year holding period, the animal may be placed in the adoption program or sent to a long-term holding facility.

**Appendix C
Euthanasia Policy**

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

October 20, 2005

In Reply Refer To:
4730/4700 (WO-260) P

EMS TRANSMISSION 11/03/2005
Instruction Memorandum No. 2006-023
Expires: 09/30/2007

To: All Field Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Euthanasia of Wild Horses and Burros

Program Area: Wild Horses and Burros

Purpose: This policy identifies requirements for euthanasia of wild horses and burros.

Policy/Action: A Bureau of Land Management (BLM) authorized officer may authorize the euthanasia of a wild horse or burro in field situations (includes free-roaming horses and burros encountered during gather operations) as well as short- and long-term wild horse and burro holding facilities with any of the following conditions:

- (1) Displays a hopeless prognosis for life;
- (2) suffers from a chronic or incurable disease, injury or serious physical defect; (includes severe tooth loss or wear, severe club feet, and other severe acquired or congenital abnormalities)
- (3) would require continuous treatment for the relief of pain and suffering in a domestic setting;
- (4) is incapable of maintaining a Henneke body condition score greater than two, in its present environment;
- (5) has an acute or chronic injury, physical defect or lameness that would not allow the animal to live and interact with other horses, keep up with its peers or exhibit behaviors which may be considered essential for an acceptable quality of life constantly or for the foreseeable future;
- (6) suffers from an acute or chronic infectious disease where State or Federal animal health officials order the humane destruction of the animal as a disease control measure.

Euthanasia in field situations (includes on-the-range and during gathers):

There are three circumstances where the authority for euthanasia would be applied in a field situation:

(A) If an animal suffers from a condition as described in 1-6 above that causes acute pain or suffering and immediate euthanasia would be an act of mercy, the authorized officer has the authority and the obligation to promptly euthanize the animal. If the animal is euthanized during a gather operation, the authorized officer will describe the animal's condition and report the action using the gather report in the comment section that summarizes gather operations (See attachment 1). If the euthanasia is performed during routine monitoring, the Field Manager will be notified of the incident as soon as practical after returning from the field.

(B) Older wild horses and burros encountered during gather operations should be released if, in the opinion of the authorized officer, the criteria described in 1-6 above for euthanasia do not apply, but the animals would not tolerate the stress of transportation, adoption preparation, or holding and may survive if returned to the range. This may include older animals with significant tooth wear or tooth loss that have a Henneke body condition score greater than two. However, if the authorized officer has inspected the animal's teeth and feels the animal's quality of life will suffer and include health problems due to dental abnormalities, significant tooth wear or tooth loss; the animal should be euthanized as an act of mercy.

(C) If an animal suffers from any of the conditions listed in 1-6 above, but is not in acute pain, the authorized officer has the authority to euthanize the animal in a humane manner. The authorized officer will prepare a written statement documenting the action taken and notify the Field Manager and State Office Wild Horse and Burro (WH&B) Program Lead. If available, consultation and advice from a veterinarian is recommended, especially where significant numbers of wild horses or burros are involved.

If, for humane or other reasons, the need for euthanasia of an unusually large number of animals during a gather operation is anticipated, the euthanasia procedures should be identified in the pre-gather planning process. When pre-gather planning identifies an increased likelihood that animals may need to be euthanized, plans should be made for an APHIS veterinarian to visit the gather site and consult with the authorized officer on euthanasia decisions.

In all cases, the final responsibility and decision regarding euthanasia of a wild horse or burro rests solely with the authorized officer (43 CFR 4730). Euthanasia will be carried out following the procedures described in the 4730 manual.

Euthanasia at short-term holding facilities:

Under ideal circumstances horses would not arrive at preparation or other facilities that hold horses for any length of time with conditions that require euthanasia. However, problems can develop during or be exacerbated by handling, transportation or captivity. In these situations the authority for euthanasia would be applied:

(A) If an animal suffers from a traumatic injury or other condition as described in 1-6 above that causes acute pain or suffering and immediate euthanasia would be an act of mercy, the authorized officer has the authority and the obligation to promptly euthanize the animal. A veterinarian should be consulted if possible.

(B) If in the opinion of the authorized officer and a veterinarian, older wild horses and burros in short-term holding facilities cannot tolerate the stress of transportation, adoption preparation, or long-term holding they should be euthanized. However, if the authorized officer has inspected the animal and feels the animal's quality of life will not suffer, and the animal could live a healthy life in long-term holding, the animal should be shipped to a long-term holding facility.

(C) It is recommended that consultation with a veterinarian is obtained prior to euthanasia. If an animal suffers from any of the conditions listed in 1-6 above, but is not in acute pain, the authorized officer has the authority to euthanize the animal in a humane manner. Situations where acute suffering of the animal is not involved could include a physical defect or deformity that would adversely impact the quality of life of the animal if placed in the adoption program or on long-term holding. The authorized officer will ensure that there is a report from a veterinarian describing the condition of the animal that was euthanized. These records will be maintained by the holding facility.

If, for humane reasons, the need for the euthanasia of a large number of animals is anticipated, the euthanasia procedures should be identified to the WH&B State Lead or the National Program Office (NPO) when appropriate. A report that summarizes the condition, circumstances and number of animals involved must be obtained from a veterinarian who has examined the animals and sent to the WH&B State Lead and the NPO.

In all cases, final decisions regarding euthanasia of a wild horse or burro rest solely with the authorized officer (43 CFR 4730). Euthanasia will be carried out following the procedures described in the 4750-1 Handbook.

Euthanasia at long-term holding facilities:

This portion of the policy covers additional euthanasia conditions that are related to long-term holding facilities and includes existing facilities and any that may be added in the future.

At long-term holding facilities the authority for euthanasia would be applied:

(A) If an animal suffers from a traumatic injury or other condition as described in 1-6 above that causes acute pain or suffering and immediate euthanasia would be an act of mercy, the authorized officer has the authority and the obligation to promptly euthanize the animal.

(B) If an animal suffers from any of the conditions listed in 1-6 above, but is not in acute pain, the authorized officer has the authority and obligation to euthanize the animal in a humane and timely manner. In situations where acute suffering of the animal is not involved, it is recommended that a consultation with a veterinarian is obtained prior to euthanasia. The authorized officer will ensure that there is a report from a veterinarian describing the condition of the animal that was euthanized. These records will be maintained by the authorized officer.

The following action plan will be followed for animals at long-term holding facilities:

The WH&B Specialist who is the Project Inspector and the contractor will evaluate all horses and their body condition throughout the year. Once a year a formal evaluation as well as a formal

count of all horses at long-term holding facilities will be conducted. The action plan for the formal evaluation is as follows:

1. All animals will be inspected by field observation to evaluate body condition and identify animals that may need to be euthanized to prevent a slow death due to deterioration of condition as a result of aging. This evaluation will be based on the Henneke body condition scoring system. The evaluation team will consist of a BLM WH&B Specialist and a veterinarian not involved with regular clinical work or contract work at the long-term holding facilities. The evaluations will be conducted in the fall (September through November) to identify horses with body condition scores of 3 or less. Each member of the team will complete an individual rating sheet for animals that rate a category 3 or less. In the event that there is not agreement between the ratings, an average of the 2 scores will be used and final decisions will be up to the BLM authorized officer.
2. Animals that are rated less than a body condition score of 3 will be euthanized in the field soon after the evaluation by the authorized officer or their designated representative. The horses that rate a score 3 will remain in the field and should be re-evaluated by the contractor and WH&B Specialist that is the Project Inspector, for that contract, in 60 days to see if their condition is improving, staying the same or declining. Those that are declining in condition should be euthanized soon after the second evaluation.
3. The euthanasia process that will be used is a firearm. The authorized officer or their designated representative will carry out the process. Field euthanasia does not require the gathering of the animals which would result in increased stress and may cause unnecessary injury to other horses on the facility.
4. Documentation for each animal euthanized will include sex, color, and freeze/hip brand (if readable). Copies of all documentation will be given to the contractor and retained by BLM.
5. Arrangements for carcass disposal for euthanized animal(s) will be in accordance with applicable state and county regulations.

In all cases, the final decisions regarding euthanasia of a wild horse or burro for humane reasons rests solely with the authorized officer (43 CFR 4730). Euthanasia will be carried out following the procedures described in the 4750-1 Handbook.

Timeframe: This action is effective from the date of approval through September 30, 2007.

Budget Impact: Implementation of these actions would not result in additional expenditures over present policies.

Manual/Handbook Sections Affected: No manual or handbook sections are affected.

Background: The authority for euthanasia 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 and BLM Manual 4730- Destruction of Wild Horses and Burros and Disposal of their Remains.

Decisions to euthanize require an evaluation of individual horses that suffer due to injury, physical defect, chronic or incurable disease, severe tooth loss or old age. The animal's ability to survive the stress of removal and/or their probability of surviving on the range if released, transportation to a BLM facility and to adoption or long-term holding should be determined. The long term care of these animals requires periodic evaluation of their condition to prevent long term suffering. These evaluations will, at times, result in decisions that will require the euthanasia of horses or burros if this is the most humane course of action.

Coordination: This document was coordinated with the Wild Horse and Burro Specialists in each affected state, the National Program Office and Wild Horse and Burro Advisory Board.

Contact: Questions regarding this memorandum should be directed to Lili Thomas, Wild Horse and Burro Specialist, Wild Horse and Burro National Program Office, at (775) 861-6457.

Signed by:
Thomas H. Dyer
Deputy Assistant Director

Authenticated by:
Robert M. Williams
Policy and Records Group, WO-560

Appendix D
Selective Removal Criteria

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

August 10, 2005

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

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

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

Program Area: Wild Horse and Burro Program

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

A. Gather Requirements

1. Appropriate Management Level Achievement (AML)

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

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

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

- a. Results of population modeling that forecast impacts to the Herd Management Area's (HMA's) population resulting from removals and fertility control treatments.

- b. The desired post-gather on-the-range population number, age structure and sex ratio for the managed population.
 - c. Fertility control will be considered in all Gather Plan/NEPA documents (IM No. 2004-138) and will be addressed in the population model analysis. A “do not apply” decision will be justified in the rationale.
 - d. The collection of blood samples for development of genetic baseline data.
3. Where removals are necessary to achieve or maintain thriving natural ecological balance, all decisions shall be issued full force and effect under the authority of 43 CFR § 4770.3(c).
 4. All gathers that have been approved by Washington Office (WO) through the annual work plan process and that are listed on the National Gather Schedule may proceed without further approval. Changes to the gather schedule involving increased removal numbers for listed gathers, adding new gathers, or substituting gathers require approval by WO-260. Requests for such gathers will be submitted using Attachment 1 to WO-260, Reno National Program Office (NPO), for review and approval by the WO-260 Group Manager.

No WO approval is required for the removal of up to 10 nuisance animals per instance unless a national contractor conducts the removal.

5. A gather and removal report (Attachment 2) is required for each wild horse and burro gather. Partial completion reports shall be filed periodically (every 2 to 5 days) during large lengthy gathers. A final report for all gathers will be submitted to the State WH&B Lead and WO-260, NPO, within ten days of gather completion.

B. Selective Removal Requirements

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

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

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

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

- a). Age Class -Five Years and Younger

Wild horses five years of age and younger should be the first priority for removal and placement into the national adoption program.

b). Age Class - Six to Fifteen Years Old

Wild horses six to fifteen years of age should be removed last and only if management goals and objectives for the herd can't be achieved through the removal of younger animals.

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

c). Age Class Sixteen Years and Older

Wild horses aged sixteen years and older should not be removed from the range unless specific exceptions prevent them from being turned back and left on the range.

C. Potential Exceptions to Selective Removal Requirements

1. Nuisance animals
2. Animals outside of an HMA
3. Land use plan or activity plan identifies certain characteristics that are to be selectively managed for in a particular HMA (Examples: Spanish characteristics, Bashkir "Curly" or others).
4. Total removals required by law or land use plan decisions
5. Court ordered gathers
6. Emergency gathers (see IM 2004-151)
7. Removal of wild horses treated with fertility control PZP. Specific instructions are outlined in IM 2004-138 in regards to removal of these animals.

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

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

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

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

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

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

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

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

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

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

2 Attachments

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

Appendix E Population Modeling

Objectives of Population Modeling

Some of the questions answered through the modeling include:

- Does either action alternative “crash” the horse population residing in the HMA?
- What effects do the different alternatives have on the average population size and annual growth rate in the NWHR?

Population Modeling Results

Alternative 1 (Proposed Action): Gather with Fertility Control. Release 120 mares, 180 studs.

The parameters for the population modeling were:

1. Management by removals and fertility control
2. Starting year is 2008
3. Gathering occurs at minimum interval of 3 years
4. Initial gather year is 2008
5. Gathers for fertility treatment only occur if population exceeds threshold.
6. Gathers continue after removals to treat additional females to be released.
7. Threshold population size for gathers is 500.
8. Target population size following removals is 300.
9. Foals are included in AML.
10. Percent of population that can be gathered = 90%.
11. Percent effectiveness of fertility control: year 1 is 94%, year 2 is 82%, year 3 is 68%, year 4 is 0%, year 5 is 0%.

Population Sizes in 6 Years*

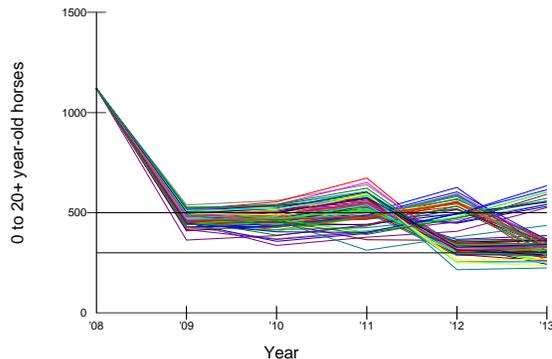
	Minimum	Average	Maximum
Lowest Trial	216	515	1120
10th Percentile	270	531	1120
25th Percentile	296	540	1120
Median Trial	320	552	1120
75th Percentile	345	570	1120
90th Percentile	368	579	1120
Highest Trial	451	592	1120

Average Growth Rate in 5 Years

Lowest Trial	-0.7
10th Percentile	4.4
25th Percentile	7.1
Median Trial	8.7
75th Percentile	10.4
90th Percentile	11.6
Highest Trial	14.0

- 0 to 20+ year-old horses

Summary Graph of Trials



Alternative 2: Gather and fertility control. Release 150 mares, 75 studs and 75 geldings.

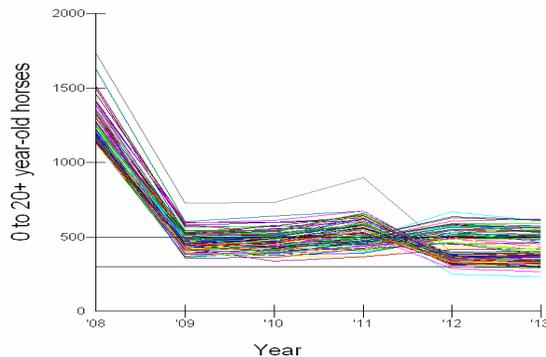
The parameters for the population modeling were:

1. Management by removals and fertility control
2. Starting year is 2008
3. Gathering occurs at minimum interval of 3 years
4. Initial gather year is 2008
5. Threshold population size for gathers is 500.
6. Target population size following removals is 300.
7. Foals are included in AML.
8. Percent of population that can be gathered = 90%.

Population Sizes in 6 Years*			Average Growth Rate in 5 Years		
	Minimum	Average	Maximum		
Lowest Trial	232	522	1128	Lowest Trial	1.3
10th Percentile	312	548	1142	10th Percentile	5.1
25th Percentile	338	562	1174	25th Percentile	8.0
Median Trial	364	588	1212	Median Trial	10.7
75th Percentile	402	621	1273	75th Percentile	13.1
90th Percentile	437	648	1390	90th Percentile	14.4
Highest Trial	499	815	1735	Highest Trial	16.6

* 0 to 20+ year-old horses

Summary Graph of Trials



Alternative 3 (No Action): No Gather.

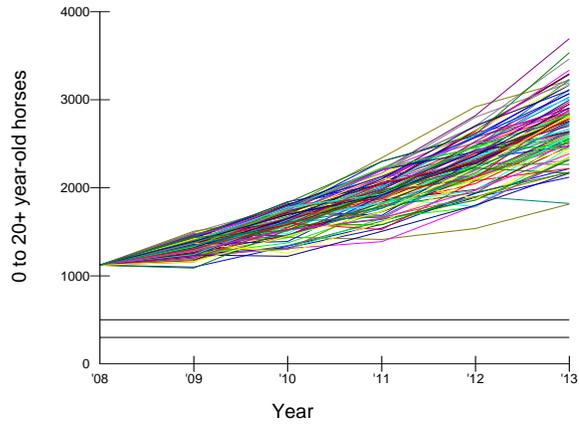
The parameters for the population modeling were:

1. No management
2. Starting year is 2008

Population Sizes in 6 Years*			Average Growth Rate in 5 Years		
	Minimum	Average	Maximum		
Lowest Trial	1088	1446	1813	Lowest Trial	10.1
10th Percentile	1120	1653	2294	10th Percentile	15.4
25th Percentile	1120	1737	2514	25th Percentile	17.5
Median Trial	1120	1855	2780	Median Trial	19.9
75th Percentile	1120	1937	2905	75th Percentile	21.0
90th Percentile	1120	2032	3184	90th Percentile	23.2
Highest Trial	1120	2153	3693	Highest Trial	26.9

• 0 to 20+ year-old horses

Summary Graph of Trials



Appendix F
List of Interested Individuals, Groups and Agencies Contacted

Those Contacted During Public Scoping

Conni Canaday	Bob & Janet Byer	Tedi Gable
Robert Wiemer	Marty Teller	Keith Rogers
Trudy Lawrence	John Morgan	Debbie Hines
Phyllis Laferriere	Robert Fleck	Lori Owens
Cindy MacDonald	Paula Callahan	Barbara Warner
Billie Young	Connie Brady	Elnoma Reeves
Shari Warren	Martin Lapid	Christine Brehm
Flora Woratschek	John Hiatt	Mikki J. Bailey
Ted Oom	Santa Gagliariardo	Joy Smith
Red Rock Country Club	Trevor Dolby	Cindy Bell
Kimberly Burton	Ned & Edna Clem	A.J. Dodd
Mark Waite	Mary Floyd	Linda Mickelson
Tara Kilpatrick	Bhavani Johnson	Alice Rossing & Ron Beebe
Jim Petell	Jewel Glavey	Mary Anderson
Ben Lynch	Laurie Howard	Rick Ruud
Anna & Steve Wholey	Roberta Jones	Patricia Little
Torey Rudd	Wendy Kalinowski	Tamra Vannucci
Larryne Lologo	Kim McCradle	Hal & Suzanne Gray
Ryan Ross	MaryBeth McCradle	Shanna Little
Polly McClendon	Terry B. Myers	Tracy Epsicope Nelson
George Knapp	Mindy Vannucci	Craig Downer
Chris Rose	Kathy Valente	Frank Jaffe
Shelby Little		
National Wild Horse Association		
Wild Horse Organized Assistance		
Fraternity of the Desert Bighorn		
Nevada Department of Wildlife		
State of Nevada Commission for the Preservation of Wild Horses		
State of Nevada Department of Administration		
America's Wild Horse Advocates		

Those Requesting to Remain on the Mailing List and Provided with a Copy of the Preliminary EA for 30 Day Review and Comment

Craig Downer	National Wild Horse Association	Kathy Valente
Tara Kilpatrick	Karen Deckert	Debbie Hines
Barbara Warner	Jim Petell	Lori Owens
Tedi Gable	Ned and Edna Clem	Ms. Claire Toomey
Cindy MacDonald	Nevada Department of Wildlife	
Fraternity of the Desert Bighorn		
America's Wild Horse Advocates		
State Of Nevada Department of Administration		
Wild Horse Organized Assistance		
State of Nevada Commission for the Preservation of Wild Horses		

Appendix G

Summary of Comments Received During Public Scoping and How BLM Used These Comments in Preparing the Environmental Assessment

No.	Commenter Name	Comment	BLM Response
1	Lori Owens	The size of the area and its resources are more than adequate to support the number of wild horses currently on the land.	This issue is previously decided and is therefore outside the scope of this environmental analysis. Refer to the EA (page 2, and page 6-7).
2	Lori Owens	BLM is removing wild horses from areas (i.e. Fish Lake Valley and Cold Creek) that have ample water and food.	Both the Fish Lake Valley and Cold Creek areas are outside the NWHR (project area), therefore, this comment is outside the scope of this environmental analysis.
3	Lori Owens	If there isn't sufficient water for wild horses, how are other species finding adequate sources of water? I don't see any of those species being gathered and relocated?	Refer to BLM's response to Comment 1 above. Also, wild horses and wildlife do not necessarily use the same water sources (wild horses generally avoid areas of 30% or greater slope). Additionally, BLM is not the responsible agency (wildlife species are managed by the Nevada Department of Wildlife).
4	Lori Owens	BLM spends about \$200-250,000 for helicopter gathering – wouldn't it make more sense to spend the money on installing water tanks and monitoring natural sources of water instead?	This comment is outside the scope of this environmental analysis which is limited to the need to remove excess wild horses in order to achieve and maintain the AML and prevent further range deterioration resulting from the current overpopulation. Refer to EA, page 6.
5	Lori Owens	I'd rather see horses take a chance on survival in the wild that stand day after day in overcrowded corral facilities.	The No Action (No Gather) alternative is analyzed in detail in this EA. Refer to page 8 and page 12-17.
6	Lori Owens	Anyone with any common sense would know that an adoption held during the cooler time of the year would be easier on the animals than one held in June.	An adoption is not part of the Proposed Action analyzed in detail in this EA (refer to page 8), therefore, this comment is outside the scope of the environmental analysis.
7	Lori Owens	The LVFO WH&B Specialist knows little about horses in general and wild horses and burros in particular.	This comment is outside the scope of this environmental analysis. Refer to the EA, page 6.
8	Lori Owens Craig Downer Barbara Warner	Your proposal of leaving 300 wild horses on the range will not allow for adequate genetic diversity.	This comment is incorporated in Issue 1. Refer to the EA, page 6.
9	Cindy MacDonald	How many mares were treated with fertility control during the last gather, if any? Also, please explain BLM's population estimates over the past four year period, which indicate reproduction rates of over 40%.	The requested data is summarized in the EA, page 2, 4 and 12.
11	Craig Downer	I am requesting a breakdown of the total legal acreage of the NWHR and surrounding legal herd areas. I am	Refer to BLM's response to Comment 1 above.

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		also requesting a breakdown and description of: (1) the water sources to which the wild horses are entitled and how this compares with all existing water sources in and around the NWHR, (2) the fences presently existing within the refuge and how these might disrupt the seasonal wild horse migratory patterns and impede their access to water, and (3) other grazers and browsers present in the NWHR, including livestock and big game animals that would allow a fair appraisal of the relative proportions of resources which the wild horses are actually receiving vis-a-vis livestock, big game, and other uses going on within this our nation's greatest wild horse sanctuary!	Additional information about the NWHR is also available in the May 2003 Proposed Nevada Test and Training Range RMP/EIS and July 2004 Record of Decision. These documents are on file in the Las Vegas Field Office as well as the Nevada State Office in Reno.
12	Craig Downer	In regard to the proposed use of PZP on remaining mares allowed to remain in the NWHR, I am very much opposed to this as it will reduce the natural herd vitality and resilience, further contributing to the herd's decline.	The No Action (No Gather/No Fertility Control) alternative is analyzed in detail in this EA. Refer to EA, page 8 and page 12-17.
13	Craig Downer	I am a strong advocate of alternative approaches to wild horse management that respect the wild horse-containing ecosystem and allow the natural cycles to operate, including that most natural cycle involving birth and death and the contribution that the wild horse makes as a prey or scavenged species. What more fitting end than to contribute one's mortal remains to the ecosystem that has supported one since birth?! Once they have spaced out their available habitat, then they stabilize their population numbers as a member of the climax ecological sere.	Managing wild horses in the manner suggested is contrary to law and regulation. Also, refer to BLM's response to Comment 1 above.
14	Kathy Valente	Proper procedures and humane treatment of all wild horses and burros must be implemented. No horse or burro should ever be slaughtered or sent to other countries for that purpose.	The Standard Operating Procedures (SOPs) outlined in the EA, Appendix A and B provide for the proper and humane capture, handling and transportation of wild horses. Also refer to the EA, page 6-8, 12-14 and page 20-21.