United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Schell Field Office
HC33 Box 33500 (702 N. Industrial Way)
Ely, Nevada 89301-9408
http://www.blm.gov/nv/st/en/fo/ely_field_office.html

In Reply Refer To:
4720 (NVL02000)

Dear Reader:

The Final Environmental Assessment (EA) for the Eagle, Chokecherry, and Mt. Elinore Herd Management Areas (HMAs) Wild Horse and Burro Gather (EA) DOI-BLM-NV- L020-2010-0045-EA, Finding of No Significant Impact, and Decision Record is available on-line at http://www.blm.gov/nv then click on the Ely District. Hard copies can also be obtained, upon request, from the Cedar City and Schell Field Offices.

The Environmental Assessment (EA) analyzes the Bureau of Land Management's (BLM) Schell and Cedar City Field Offices proposal to gather and remove excess wild horses from within and outside the Eagle, Chokecherry, and Mt. Elinore Herd Management Areas (HMAs) beginning around January 1, 2011.

The Finding of No Significant Impact (FONSI) documents BLM's determination that the proposed action will not result in "significant environmental impacts," and the Decision Record approves implementation of the proposed gather.

If you have any questions on this matter, please contact Ben Noyes, BLM Ely District Wild Horse and Burro Specialist, at (775) 289-1800

Sincerely,

/s/Mary D'Aversa

Mary D'Aversa
Field Manager
Schell Field Office

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Schell Field Office
HC33 Box 33500 (702 N. Industrial Way)
Ely, Nevada 89301-9408
http://www.blm.gov/nv/st/en/fo/ely_field_office.html

In Reply Refer To:
4720/4710.4 (NVL02000)

DECISION RECORD (DR)
for
Wild Horse Gather Plan Environmental Assessment (EA)
for the Eagle, Chokecherry, and Mt. ElinoreHerd Management Area Gather Plan
Schell Field Office
Cedar City Field Office
DOI-BLM-NV-L020-2010-0045-EA

INTRODUCTION

The Bureau of Land Management (BLM) Schell and Cedar City Field Offices, have determined that excess wild horses are present within and outside the boundaries of the Eagle, Chokecherry, and Mt. Elinore Herd Management Areas (HMAs) and is proposing to gather and remove approximately 748 excess wild horses. BLM will also gather a sufficient number of additional wild horses so that mares can be treated with PZP-22 (Porcine Zona Pellucida) fertility control vaccine, and studs can be released so as to achieve a 60% ratio relative to 40% mares. If gather efficiencies do not allow for the completion of the Proposed Action in Fall 2010, the Schell and Cedar City FO's would return to the project area in 2012 or 2013 to gather a sufficient number of wild horses to achieve the low range of the appropriate management level (AML) and to implement population control measures for released horses. The gather, removal and fertility control are intended to bring the wild horse population to AML and to slow wild horse population growth in order to extend the time before another gather to remove excess wild horses would be needed.

The Eagle, Chokecherry, and Mt. Elinore HMAs are located approximately 50 miles southeast of Ely, Nevada, and 20 miles northeast of Caliente, Nevada, within Lincoln County. The Eagle HMA is approximately 670,000 acres in size, Chokecherry HMA is approximately 38,995 acres in size, and Mt. Elinore HMA is approximately 34,047 acres in size. The AML range established for the Eagle HMA is 100-210 wild horses, Chokecherry HMA AML is 30 wild horses and Mt. Elinore HMA AML is 15-25 wild horses. An aerial direct count population inventory of the Eagle, Chokecherry and Mt. Elinore HMAs in December of 2009 observed 595 wild horses in the Eagle HMA, 71 wild horses in the Chokecherry HMA, and 66 wild horses in the Mt. Elinore HMA. The current estimated population within the Eagle HMA is 714 wild horses (including the 2010 foal crop). The current population estimate for Chokecherry HMA is 85 and for Mt. Elinore HMA is 79 wild horses (including the 2010 foal crop). The gather area incorporates the three HMAs because all three HMAs are above AML and there is known movement of wild horses between the HMAs. Combining these HMAs into a single gather will allow BLM to achieve AML on all of the HMAs, without merely shifting excess horses from one HMA to another HMA.

BLM has prepared an environmental assessment (EA) to analyze the environmental impacts associated with the proposed gather, removal and fertility control measures. Refer to **DOI-BLM-NV-L020-2010-045EA**.

DECISION

It is my decision to implement the Proposed Action as described in the final Environmental Assessment for the Eagle, Chokecherry, and Mt. Elinore HMAs (**DOI-BLM-NV-L020-2010-045 EA)**. This decision is effective immediately pursuant to 43 CFR 4770.3(c).

RATIONALE

Upon analyzing the impacts of the Proposed Action and following issuance of the EA for public review, I have determined that implementing the Proposed Action will not have a significant impact to the human environment and that an environmental impact statement is not requiredas set forth in the attached Finding of No Significant Impact.

The gather is necessary to remove excess wild horses and to bring the wild horse population back to within the established AML range, in order to maintain a thriving natural ecological balance between wild horses and other multiple uses as required under Section 1333(a) of the 1971 Wild Free-Roaming Horses and Burros Act and Section 302(b) of the Federal Land Policy and Management Act of 1976.

The BLM is required to manage multiple uses to avoid degradation of public rangelands, and the removal of excess wild horses is necessary to protect rangeland resources from further deterioration or impacts associated with the current overpopulation of wild horses within the Eagle, Chokecherry, and Mt. Elinore HMAs.

The Proposed Action will achieve the wild horse management objectives identified in the Record of Decision (ROD) and Approved Ely District Resource Management Plan (August 2008) and is in conformance with the BLM's *Pinyon Management Framework Plan (MFP)* approved June 10, 1983. The application of fertility control and/or adjustment of sex ratios to 60% males and 40% females within the Eagle, Chokecherry, and Mt. Elinore HMAs as described in the Proposed Action would slow population growth, maintain population size within AMLs and extend the time before another gather to remove excess wild horses becomes necessary. Removal of excess wild horses, combined with the implementation of population control measures for wild horses gathered and released back into the HMA would also result in placing fewer excess wild horses in short or long-term holding or in the adoption or sale pipelines over the next 10 year period as compared to the No Action Alternative.

Leaving excess wild horses on the range under the No Action Alternative would not comply with the WFRHBA or applicable regulations and Bureau policy, nor would it comply with the Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (February 12, 1997) for Rangeland Health and Healthy Wild Horse and Burro Populations. The No Action Alternative would allow continued deterioration of rangeland resources, including vegetative, soil and riparian resources, and could potentially result in the irreversible loss of native vegetative communities. Wild horses would continue to relocate in increasing numbers to areas outside the HMAs boundaries due to competition for limited water and forage within the HMAs, adversely impacting public land resources not designated for wild horse management. The No Action Alternative also increases the likelihood of emergency conditions arising, leading to the death or suffering of individual animals and requiring an emergency gather to prevent suffering or death due to insufficient forage or water.

PUBLIC INVOLVEMENT

A preliminary environmental assessment was made available to the public when it was posted on the Ely District website www.nv.blm.gov/ely for a 30 day public review and comment period on August 5, 2010. Written or mailed-in comments were received from 7 individuals and agencies. E-mail comments were received from28 individuals and/or organizations. Many of these comments contained overlapping issues/concerns which were consolidated into 25 distinct topics. Refer to EA, Appendix VI for a detailed summary of the comments received and how BLM used these comments in preparing the final environmental assessment. The final Environmental Assessment / Gather Plan for Eagle, Chokecherry, and Mt. Elinore is available on the BLM's web site at www.nv.blm.gov/ely, or by contacting the Ely District Office.

AUTHORITY

The authority for this Decision is contained in Section 1333(a) of the 1971 Free-Roaming Wild Horses and Burros Act, Section 302(b) of the Federal Land Policy and Management Act (FLPMA) of 1976, and Code of Federal Regulations (CFR) at 43 CFR §4700.

§4700.0-6 Policy

> (a) Wild horses and burros shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat;
> (b) Wild horses and burros shall be considered comparably with other resource values in the formulation of land use plans;
> (c) Management activities affecting wild horses and burros shall be undertaken with the goal of maintaining free-roaming behavior;
> (d) In administering these regulations, the authorized officer shall consult with Federal and State wildlife agencies and all other affected interests, to involve them in planning for and management of wild horses and burros on the public lands.

§4710.4 Constraints on Management

> Management of wild horses and burros shall be undertaken with the objective of limiting the animals' distribution to herd areas. Management shall be at the minimum level necessary to attain the objectives identified in approved land use plans and herd management area plans.

§4720.1 Removal of excess animals from public lands

> 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 …

§4740.1 Use of Motor Vehicles or Air-Craft

> (a) Motor vehicles and aircraft may be used by the authorized officer in all phases of the administration of the Act, except that no motor vehicle or aircraft, other than helicopters, shall be used for the purpose of herding or chasing wild horses or burros for capture or destruction. All such use shall be conducted in a humane manner.
> (b) Before using helicopters or motor vehicles in the management of wild horses or burros, the authorized officer shall conduct a public hearing in the area where such use is to be made.

§4770.3 Administrative Remedies

(a) Any person who is adversely affected by a decision of the authorized officer in the administration of these regulations may file an appeal. Appeals and petitions for stay of a decision of the authorized officer must be filed within 30 days of receipt of the decision in accordance with 43 CFR part 4.

(c) Notwithstanding the provisions of paragraph (a) of §4.21 of this title, the authorized officer may provide that decisions to remove wild horses or burros from public or private lands in situations where removal is required by applicable law or is necessary to preserve or maintain a thriving natural ecological balance and multiple use relationship shall be effective upon issuance or on a date established in the decision.

APPROVAL

The Eagle, Chokecherry, and Mt. Elinore HMA wild horse gather is approved to begin on or around January 1, 2011. This decision is effective upon issuance in accordance with 43 C.F.R. § 4770.3 (c) because removal of excess wild horses is necessary to protect animal health and prevent further deterioration of rangeland resources. This decision may be appealed to the Interior Board of Land Appeals, Office of Hearings and Appeals, in accordance with provisions found at 43 CFR Part 4 (see attachment).

____/s/Mary D'Aversa_____ _____10-21-2010_____
Mary D'Aversa Date
Field Manager
Schell Field Office

____/s/Dan T. Fletcher acting for_____ ____10-21-2010_____
Randy M. Trujillo Date
Acting Field Manager
Cedar City Field Office

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
for
Wild Horse Gather Plan Environmental Assessment (EA)
For the Eagle, Chokecherry, and Mt. ElinoreHerd Management Area
Schell Field Office
Cedar City Field Office
DOI-BLM-NV-L020-2010-0039-EA

Based on the analysis of potential environmental impacts in the Environmental Assessment for the Eagle, Chokecherry, and Mt. ElinoreWild Horse Gather (DOI-BLM-NV-L020-2010-0045), I have determined that the Proposed Action will not have a significant effect on the human environment. Therefore, the preparation of an environmental impact statement (EIS) is not required for compliance with the National Environmental Policy Act of 1969.

Reasons for this finding are based on my consideration of the Council on Environmental Quality (CEQ) criteria for significance (40 CFR 1508.27) with regard to the context and intensity of impacts.

Context: The affected region is limited to portions of Lincoln County (Nevada), Beaver and Iron Counties (Utah), where the project area is located. The gather has been planned with input from interested public and users of public lands.

Intensity: Based on my review of the EA against CEQ's factors for intensity, there is no evidence that the severity of impacts is significant**:**

1. *Impacts that may be both beneficial and adverse.* The proposed gather would be consistent with the Ely District Approved Resource Management Plan (August 2008) and the Pinyon Management Framework Plan (MFP, 1983), and the standards for rangeland health, and would maintain a thriving natural ecological balance and multiple use relationship consistent with other resource needs as required under the WFRHBA. Although the gather and removal of excess wild horses is expected to have short-term impacts on individual animals, over the long-term, it is expected to benefit wild horse health by improving forage and habitat conditions in the herd management areas and would be beneficial for rangeland resources such as vegetative communities, riparian resources, and wildlife habitat.

2. *The degree to which the proposed action affects public health or safety.* The Standard Gather Operating Procedures (EA, Appendix IV) would be used to conduct the gather and are designed to protect human health and safety, as well as the health and safety of the wild horses and burros. The proposed action has no effect on public health or safety.

3. *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.* The proposed action has no potential to affect unique characteristics such as historic or cultural resources or properties of concern to Native Americans. There are no wild and scenic rivers, or ecologically critical areas present in the areas. Maintenance of appropriate numbers of wild horses is expected to help make progress in meeting resource objectives for improved riparian, wetland, aquatic and terrestrial habitat.

4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.* Effects of the gather are well known and understood. No unresolved issues were raised through consultation or public comments.

5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.* Possible effects on the human environment are not highly uncertain and do not involve unique or unknown risks. The Proposed Action has no known effects on the human environment

which are considered highly uncertain or involve unique or unknown risks. This is demonstrated through the effects analysis in the EA.

6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.* The action is compatible with future consideration of actions required to improve wild horse management in conjunction with meeting objectives for wildlife habitat within the herd management area. The Proposed Action does not set a precedent for future actions. Future actions would be subject to evaluation through the appropriate level of NEPA documentation

7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.* The proposed action is not related to other actions with individually insignificant but cumulatively significant impacts.

8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.* The proposed gather has no potential to adversely affect significant scientific, cultural, or historical resources.

9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.* The proposed action is not likely to adversely affect any listed species, and the action area does not include any habitat determined to be critical under the Endangered Species Act.

10. *Whether the action threatens a violation of Federal, State, local or tribal law or requirements imposed for the protection of the environment.* The Proposed Action is in compliance with the 2008 Ely District Record of Decision and the Approved Resource Management Plan dated August 2008, and the Pinyon Management Framework Plan (MFP, 1983), and is consistent with other Federal, State, local and tribal requirements for protection of the environment to the maximum extent possible.

__/s/Mary D'Aversa____ _____10-21-2010_____
Mary D'Aversa Date
Field Manager
Schell Field Office

_/s/Dan T. Fletcher acting for_____ _____10-21-2010_____
Randy M. Trujillo Date
Acting Field Manager
Cedar City Field Office

<u>Attachment</u>
Wild Horse Gather Plan Environmental Assessment (EA)
For the Eagle, Chokecherry, and Mt. ElinoreHerd Management Area Gather Plan
Decision Record

Appeal Procedures
If you wish to appeal this decision, it may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with 43 CFR part 4. If you appeal, your appeal must **also** be filed with the Bureau of Land Management at the following address:

Mary D'Aversa, Schell Field Manager
BLM, Ely Field Office
HC 33 Box 33500
702 N. Industrial Way
Ely, NV 89301

Your appeal must be filed within thirty (30) days from receipt or issuance of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR 4.21 (58 FR 4942, January 19, 1993) for a stay (suspension) of the decision during the time that your appeal is being reviewed by the Board, the petition for stay must accompany your notice of appeal. Copies of the notice of appeal and petition for a stay must also be submitted to:

Board of Land Appeals
Dockets Attorney
801 N. Quincy Street, Suite 300
Arlington, VA 22203

A copy must also be sent to the appropriate office of the Solicitor at the same time the original documents are filed with the above office.

US Department of the Interior
Office of the Regional Solicitor
Pacific Southwest Region
2800 Cottage Way, Room E-1712
Sacramento, California 95825

If you request a stay, you have the burden of proof to demonstrate that a stay should be granted. A petition for a stay is required to show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied.
2. The likelihood of the appellants success on the merits.
3. The likelihood of immediate and irreparable harm if the stay is not granted.
4. Whether the public interest favors granting the stay.

The Office of Hearings and Appeals regulations do not provide for electronic filing of appeals, therefore they will not be accepted.

U.S. Department of the Interior
Bureau of Land Management

Final Environmental Assessment
DOI-BLM-NV-L020-2010-0045-EA
October 21, 2010

EAGLE, CHOKECHERRY, and MT. ELINORE
HERD MANAGEMENT AREAS
WILD HORSE GATHER

Location: Lincoln County, Nevada
Beaver and Iron Counties, Utah

U.S. Department of the Interior
Bureau of Land Management
Ely District Office
Phone: (775) 289-1800
Fax: (775) 289-1910

1.0 INTRODUCTION 3
1.1 Background 3
1.2 Purpose and Need 7
1.3 Conformance with BLM Land Use Plan(s) 7
1.4 Relationship to Statutes, Regulations, or other Plans 7
2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION 9
2.1 Introduction: 9
2.3 Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control 10
2.4 No Action Alternative – Continuation of Existing Management 10
2.5 Alternatives Considered But Eliminated From Detailed Analysis 10
3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL EFFECTS 14
4.0 Environmental Consequences 16
4.1. Wild Horses 16
Affected Environment 16
Environmental Impacts 18
4.2 Riparian/Wetland Areas and Surface Water Quality 26
Affected Environment 26
Environmental Impacts 26
4.3 Wildlife, including Migratory Birds 27
Affected Environment 27
Environmental Impacts 27
4.4 Special Status Plant and Animal Species 28
Affected Environment 28
Environmental Impacts 29
4.5 Livestock 29
Affected Environment 29
Environmental Impacts 31
4.6 Wilderness 31
Affected Environment 31
Environmental Impacts 31
4.7 Noxious Weeds and Invasive Non-Native Species 32
Affected Environment 32
Environmental Impacts 33
4.8 VEGETATIVE RESOURCES 33
Affected Environment 33
Environmental Impacts 34
4.9 Soils/Watershed 34
Affected Environment 34
Environmental Impacts 34
4.10 Public Health and Safety 35
Affected Environment 35
Environmental Impacts 35
5.0 CUMULATIVE IMPACTS 36
6.0 MITIGATION MEASURES AND SUGGESTED MONITORING 40
7.0 CONSULTATION AND COORDINATION 40
8.0 REFERENCES, GLOSSARY AND ACRONYMS 42

1.0 INTRODUCTION

This Environmental Assessment (EA) has been prepared to analyze the Bureau of Land Management's (BLM) Schell Field Office (SFO) and Cedar City Field Office (CCFO) proposal to gather and remove excess wild horses from within and outside the Eagle, Chokecherry, and Mt. Elinore Herd Management Areas (HMAs).

This EA is a site-specific analysis of the potential impacts that could result with the implementation of the Proposed Action or alternatives to the Proposed Action. The EA assists the BLM Schell and Cedar City Field Offices in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI).

This document is tiered to the *Ely Proposed Resource Management Plan/Final Environmental Impact Statement* (RMP/EIS, 2007) released in November 2007 and the Pinyon Management Framework Plan (MFP, 1983). If BLM determines that implementation of the Proposed Action or alternatives will not result in "significant environmental impacts" or "significant environmental impacts beyond those already addressed in the RMP/EIS and MFP", a FONSI will be prepared to document that determination, and a Decision Record issued providing the rationale for approving the chosen alternative.

1.1 Background

With passage of the Wild Free-Roaming Horses and Burros Act of 1971 ("WFRHBA"), Congress stated that, "Wild horses are living symbols of the pioneer spirit of the West." In addition, the Secretary is required to, "…manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands." From the passage of the Act, through the present day, the Schell and Cedar City Field Offices have endeavored to meet the requirements of this portion of the Act. The procedures and policies implemented to accomplish this mandate have been constantly evolving over the years.

Since the passage of the Wild Horse and Burro Act, management knowledge regarding wild horse population levels has increased. For example, wild horses are capable of increasing their numbers by 18% to 25% annually, resulting in the doubling of wild horse populations about every 4 years. This has resulted in the BLM shifting program emphasis beyond establishing the population levels at which it can ensure a "thriving natural ecological balance" through decisions setting appropriate management level (AML) for individual herds, to include management actions that allow for achieving and maintaining viable, and stable populations. For example, increased fertility control, adjusted sex ratio and collecting genetic baseline data to support genetic health assessments.

During past gather and removal operations in these HMAs where Utah or Nevada attempted

separate gathers on the HMAs at different times, wild horses would avoid capture by moving back and forth across the Utah/Nevada border. The lack of physical boundaries between the HMAs allows regular interchange and movement of horses. This movement of wild horses both during and after the gather operations made achieving AML difficult.

The Wilson Creek HMA (approximately 687,932 acres of public and private land) and Deer Lodge Canyon HMA (approximately 109,717 of public and private land) were combined in the 2008 Ely District Record of Decision and Approved Resource Management Plan into the Eagle HMA (approximately 670,000 acres of public land). Any proposed wild horse gather would be conducted in coordination and in conjunction with the Cedar City Utah Field Office, due to historic movement and continuing interchange of wild horses between the Eagle, Chokecherry (approximately 38,995 acres public land) and Mt. Elinore (approximately 34,047 acres public land) HMA's. The action should prevent deterioration of the range, as well as restore a thriving natural ecological balance and multiple use relationship on public lands in the area. In 2007 the gather of these HMAs occurred in conjunction with each other. Due to weather conditions at the time, the BLM did not gather enough excess wild horses to achieve AMLs, but was more effective and efficient than previous gathers.

The Eagle, Chokecherry, and Mt. Elinore HMAs are located approximately 50 miles southeast of Ely, Nevada, and 20 miles northeast of Caliente, Nevada, within Lincoln County (Figure 1). Table 1 shows the acres and Appropriate Management Levels (AML) within the HMAs.

Table 1 Herd Management Area, Acres, AML, Estimated Population

Herd	Total Acres Public land	Appropriate Management Level	Estimated Population Including 2010 Foal Crop	Excess Wild Horses to be Removed	% of AML
Eagle HMA	670,000	100-210	714	614	714-340%
Mt. Elinore HMA	34,047	15-25	85	70	566-340%
Chokecherry HMA	38,995	30	79	49	263%
Outside HMA	0	0	15	15	-

The Appropriate Management Level (AML) is defined as the number of wild horses that can be sustained within a designated HMA so as to achieve and maintain a thriving natural ecological balance[1] (TNEB) in keeping with the multiple-use management concept for the area. The range of AML for the Eagle HMA is 100-210 wild horses. This population range was established at a level that would maintain healthy wild horses and rangelands over the long-term based on monitoring data collected over time as well as an in-depth analysis of habitat suitability. The AML range was established through prior decision-making processes and re-affirmed through the Record of Decision (ROD) and Approved Ely District Resource Management Plan.

1 The Interior Board of Land Appeals (IBLA) defined the goal for managing wild horse (or burro) populations in a thriving natural ecological balance as follows: "As the court stated in Dahl v. Clark, supra at 594, the 'benchmark test' for determining the suitable number of wild horses on the public range is 'thriving ecological balance.' In the words of the conference committee which adopted this standard: 'The goal of WH&B management ***should be to maintain a thriving ecological balance between WH&B populations, wildlife, livestock and vegetation, and to protect the range from the deterioration associated with overpopulation of wild horses and burros.' " (Animal Protection Institute of America v. Nevada BLM, 109 IBLA 115.

The Appropriate Management Levels (AMLs) for the Mt. Elinore and Chokecherry set in the Pinyon MFP were established at the population levels that existed between 1971 and 1982. The AMLs within the Chokecherry and Mt. Elinore HMAs remain as set in the Pinyon MFP Wild Horse Amendment (1983). The wild horses from these HMAs travel back and forth across the Nevada/Utah border, mixing with wild horses from Nevada's Eagle HMA. Populations in the Utah HMAs can fluctuate weekly from at or near the AML (30 and 25 wild horses, respectively) to more than double the AML because of movement between HMAs.

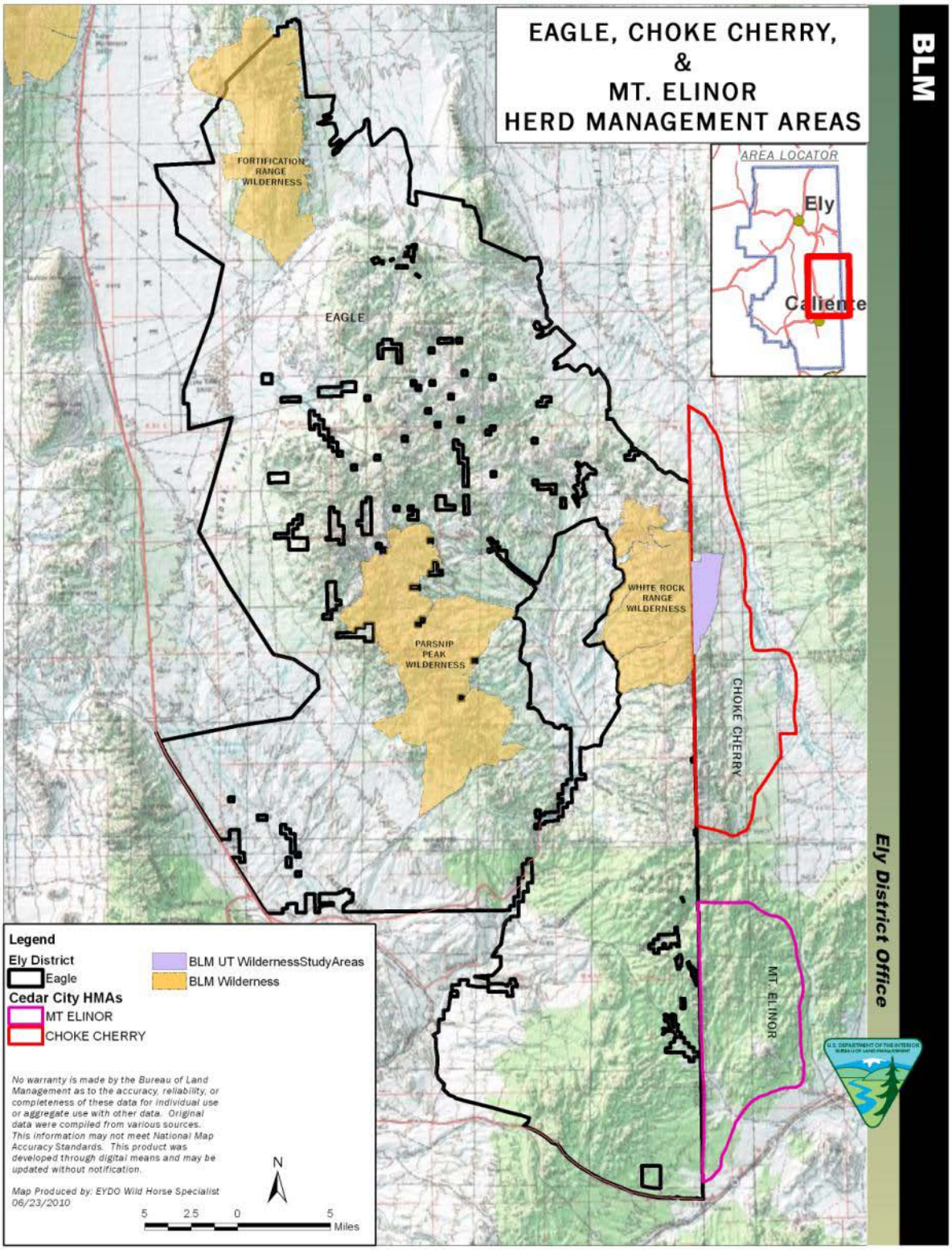
An aerial direct count population inventory of the Eagle, Chokecherry and Mt. Elinore HMAs in December of 2009 observed 595 within and outside of the Eagle HMA, 71 in Chokecherry HMA, and 66 wild horses in Mt. Elinore HMA. The current estimated population within the Eagle HMA is 714 wild horses (which includes the addition of the 2010 foal crop). The Current Population estimate for Chokecherry HMA is 85 and for Mt. Elinore HMA is 79 wild horses (including 2010 foal crop).

Wild horse numbers have increased an average of 20-25% annually since the HMAs were last gathered and are currently about 6 times over the low range of AML. This use also occurs year-round. By comparison, livestock use has remained at or below permitted use levels. Livestock use has also been in compliance with the grazing systems outlined in Final Multiple Use Decisions, Agreements, and Term Permit conditions which provide for periodic rest and deferment of key range sites.

Based upon all information available at this time, the BLM has determined that 748 excess wild horses reside within these HMAs and need to be removed in order to achieve the established AMLs, restore a thriving natural ecological balance (TNEB) and prevent further degradation of rangeland resources resulting from the current overpopulation of wild horses. This assessment is based on factors including, but not limited to the following rationale:

- Eagle, Chokecherry and Mt. Elinore HMA estimated populations exceed the AML (table 1).
- Use by wild horses is exceeding the forage allocated to their use by 6 times.
- Heavy to severe utilization is evident on key forage species within the HMAs and is attributable to the existing over-population of wild horses.

Map 1


EAGLE, CHOKE CHERRY,
&
MT. ELINOR
HERD MANAGEMENT AREAS
BLM
AREA LOCATOR
Ely
Caliente
FORTIFICATION RANGE WILDERNESS
EAGLE
WHITE ROCK RANGE WILDERNESS
PARSNIP PEAK WILDERNESS
CHOKE CHERRY
MT. ELINOR
Ely District Office
Legend
Ely District
Eagle
Cedar City HMAs
MT ELINOR
CHOKE CHERRY
BLM UT WildernessStudyAreas
BLM Wilderness
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.
Map Produced by: EYDO Wild Horse Specialist 06/23/2010
N
5 2.5 0 5
Miles

1.2 Purpose and Need

The purpose of the Proposed Action is to remove excess wild horses from the HMAs to maintain AML ranges for the HMAs, protect rangeland resources from further deterioration associated with excess wild horses within the HMAs, and to restore a thriving natural ecological balance and multiple use relationship on the public lands consistent with the provisions of Section 1333 (a) of the *Wild Free-Roaming Horses and Burros Act of 1971*.

The need for the proposed action is to prevent undue or unnecessary degradation of the public lands and to protect rangeland resources associated with excess populations of wild horses within the HMAs and use of rangeland resources by wild horses outside of HMA boundaries. ***1.3 Conformance with BLM Land Use Plan(s)***

The Proposed Action is in conformance with the 2008 Ely District ROD and Approved RMP (August 2008) as required by regulation (43 CFR 1610.5-3(a)) as follows:

- **Goal:** "Maintain and manage healthy, self-sustaining wild horse herds inside herd management areas within appropriate management levels to ensure a thriving natural ecological balance while preserving a multiple-use relationship with other uses and resources."
- **Objective:** "To maintain wild horse herds at appropriate management levels within herd management areas where sufficient habitat resources exist to sustain healthy populations at those levels."

The Pinyon Management Framework Plan (PMFP) (1983) identifies the Chokecherry and Mt. Elinore HMAs as suitable for wild horses, and allows for, "the removal of horses as required to maintain horse numbers at or below 1982 inventory levels, but not less than 1971 levels." (Pinyon MFP Wild Horse Amendment)(1983).

1.4 Relationship to Statutes, Regulations, or other Plans

The Proposed Action is consistent with the following Federal, State, and local plans to the maximum extent possible.

- Lincoln County Portion (Lincoln/White Pine Planning Area) Sage Grouse Conservation Plan (2004)
- Fortification Range, Parsnip Peak, White Rock Range Final Wilderness Management Plan and EA of January 5, 2009
- State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada Historic Preservation Office (1999)
- Mojave/Southern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (February 12, 1997)
- Lincoln County Elk Management Plan (2006 revision)
- Endangered Species Act – 1973
- Wilderness Act – 1964
- Migratory Bird Treaty Act (1918 as amended) and Executive Order 13186 (1/11/01
- Lincoln County Public Land and Natural Resource Management Plan as adopted by the

Board of County Commissioners of Lincoln County (December 5, 1997).

The Proposed Action is consistent with all applicable regulations at 43 CFR (Code of Federal Regulations) 4700 and policies. The proposed action is also consistent with, and required by, the Wild Free-Roaming Horses and Burros Act of 1971, which mandates the Bureau to "*prevent the range from deterioration associated with overpopulation*", and "*remove excess horses in order to preserve and maintain a thriving natural ecological balance and multiple use relationships in that area"*. Additionally, Promulgated Federal Regulations at Title 43 CFR 4700.0-6 (a) state "*Wild horses shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat*."

The Interior Board of Land Appeals (IBLA) in Animal Protection Institute et. al., (118 IBLA 75 (1991))found that under the Wild Free-Roaming Horses And Burros Act of 1971 (Public Law 92-195) "excess animals" must be removed from an area in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area. Regulations at 43 CFR 4700.0-6(a) also direct that wild horses be managed in balance with other uses and the productive capacity of their habitat. The proposed action is in conformance with federal statute, regulations and case law.

The proposed action is also consistent with the BLM Utah Riparian Management Policy (Instruction Memorandum UT-93-93, March 1993 which states that riparian areas will be maintained in or improved to "Proper Functioning Condition." In addition, the Proposed Action and No Action Alternative would comply with the following laws and/or agency regulations, other plans and are consistent with Federal, state and local laws, regulations, and plans to the maximum extent possible.

- Taylor Grazing Act (TGA) of 1934
- Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1701 et seq.)
- Public Rangelands Improvement Act (PRIA) of 1978
- Endangered Species Act (ESA) of 1973 as amended
- Title 43 CFR 4100 Grazing Administration-Exclusive of Alaska
- Standards of Quality for Waters of the State, R317-2-6, Utah Administrative Code, December, 1997
- BLM, Utah, Riparian Management Policy (IM UT-93-93) of 1993
- Section 106 of the National Historic Preservation Act of 1966 (as amended).
- National Environmental Policy Act of 1969 (as amended)
- American Indian Religious Freedom Act of 1979
- Archaeological Resource Protection Act of 1979
- National Historic Preservation Act of 1966, as amended
- Appropriations Act, 2001 (114 Stat. 1009) (66 Fed. Reg. 753, January 4, 2001)
- United States Department of the Interior Manual (910 DM 1.3).
- Standards and Guidelines for Healthy Rangelands, 1997 (BLM-UT-GI-98-007-1020)
- Fundamentals of Rangeland Health (43 CFR 4180)

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Introduction:

2.2 Alternative A: Proposed Action – Selective Removal of Excess Animals (Low Point AML); Apply Two-Year Fertility Control, & 60% Male Sex Ratio

The Proposed Action would gather and remove approximately 748 excess wild horses within and outside of the Eagle, Chokecherry, and Mt. Elinore HMAs. The Proposed Action would also gather a sufficient number of wild horses beyond the excess wild horses to be removed, so as to allow for the application of fertility control (PZP-22to 22-35% of the mares that will remain in the HMAs and to allow for a remaining population of 60% studs. Fertility control would be applied to all the released mares to decrease the future annual population growth. The procedures to be followed for the implementation of fertility control are detailed in Appendix II. If gather efficiencies do not allow for the attainment of the Proposed Action in Winter 2010/2011, the Schell and Cedar City FO's will return to the Project Area in 2012 or 2013 to gather a sufficient number of wild horses to achieve the low range of AML as well as to allow BLM to implement the population control component of the proposed action (fertility control treatments (PZP-22) and sex ratio adjustments for wild horses remaining in the HMA. Any follow-up gather activities in either Fall/Winter 2012 or 2013 would be conducted in a manner consistent with those described for the Winter 2010 gather. If a follow-up gather is necessary to complete the proposed action, it could be implemented up to two years after the Winter 2010 gather since the remaining and released wild horses would have a heightened response to human presence and would therefore be more difficult to gather in the year immediately following the 2010 gather. Funding limitations and competing priorities might also require pushing out the follow-up gather and population control component of the Proposed Action to Fall 2013.

Excess wild horses would be selected for removal from the range based on the following priority: age class 4 and younger would be removed first, animals age 5-10 are the lowest priority for removal and would only be removed if needed to achieve AML, animals 11-19 years old would only be removed if needed to achieve AML, and animals 20 and older should not be removed from the HMA unless specific exceptions prevent them from being turned back and left on the range. Animals displaying characteristics associated with Spanish Barb descent, regardless of age, would be selected for release back to the range, unless the lower limit of AML could not be achieved without their removal.

Due to the mountainous terrain, vegetative cover, and potential winter storm conditions, gather efficiency may be less than optimal. Population gather projections show that at 80% gather efficiency (i.e, 80% of the current population of 893 or 714 horses gathered) an insufficient number of wild horses may be gathered to implement fertility control, to allow release of horses back onto the range, or to achieve the low range of AML. Because wild horses will remain skittish for a period following a gather, BLM would return in Fall/Winter 2012 or 2013 to complete the proposed action of bringing the wild horse population to low range AML and of applying population controls to slow the rate of population growth in the HMAs.

The primary gather technique would be the helicopter-drive trapping method. The use of roping from horseback could also be used when necessary. Multiple gather sites (traps) would be used

to gather wild horses both from within or outside the HMAs. No trap sites would be set up in sage grouse leks, riparian areas, cultural resource sites, or Congressionally designated wilderness areas. Gather sites would be located in previously disturbed areas. All trap sites, holding facilities, and camping areas on public lands would be recorded with Global Positioning System equipment, given to the weed coordinator, and then assigned for monitoring during the next several years for noxious weeds. All gather and handling activities (including gather site selections) will be conducted in accordance with Standard Operating Procedures (SOPs) as described in Appendix I.

Other data, including sex and age distribution, reproduction, condition class information (using the Henneke rating system), color, size and other information may also be recorded for all gathered wild horses.

2.3 Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Alternative B would be similar to Alternative A, however once 748 wild horses are gathered and removed, the gather would conclude. No wild horses would be treated with PZP-22 fertility control and sex ratios would not be adjusted. All wild horses residing outside the HMAs would be gathered and removed. Gathered wild horses would be transported to BLM holding facilities where they will be prepared for adoption and/or sale to qualified individuals who can provide them with a good home or to long term holding (grassland pastures).

2.4 No Action Alternative – Continuation of Existing Management

Under the No Action Alternative, a gather to remove excess wild horses would not occur during Winter 2010/2011. There would be no active management to control the size of the wild horse population at this time. The current wild horse population would continue to increase at a rate of 20-25% per year. Within two years, the wild horse population would exceed 1250 head and wild horses residing outside the HMAs would remain in areas not designated for management of wild horses, and their numbers outside the HMA boundaries would also likely increase.

The No Action Alternative would not be in conformance with existing law and regulation which requires the authorized officer to remove the animals immediately upon determination that excess wild horses are present. However, the No Action Alternative is required by National Environmental Policy Act (NEPA) analysis to provide a baseline for impact analysis.

2.5 Alternatives Considered But Eliminated From Detailed Analysis

Use of Bait and/or Water Trapping

An alternative considered but dismissed from detailed analysis was use of bait and/or water trapping as the primary gather method. This alternative was dismissed from detailed study for the following reasons: (1) the size of the area to be gathered is too large to effectively use this gather method; (2) road access to the gather area is limited, particularly during the winter; and (3) the presence of water sources on both private and public lands inside and outside the HMAs would make it almost impossible to restrict wild horse access to the extent necessary to effectively gather and remove the excess animals through water trapping.

Gather and Remove Only Excess Wild Horses Ages 0-4 years and Apply Two-Year PZP to Released Mares

This alternative would be to gather the HMAs, apply two-year PZP (PZP-22) to breeding age mares, and to only remove excess horses aged 0 to 4 years old. This alternative was modeled using a three year gather/treatment interval over a 10 year period. Based on this modeling, this alternative would not result in attainment of the AML ranges for the HMAs and the wild horse populations would continue to have an average population growth rate of 7.6% to 19.5%, adding to the current wild horse overpopulation, albeit at a slower rate of growth. Although this alternative would decrease the population growth rate of the wild horses, resource concerns would continue and implementation would result in significantly increased gather and fertility control costs. This alternative would not meet the purpose and need to manage wild horses to achieve a thriving natural ecological balance and therefore did not receive further consideration.

Gather Every Two Years, Remove Excess Wild Horses to Low AML and Apply Two-Year PZP to Released Mares.

Another alternative would be to gather the HMAs every two years and apply two-year PZP (PZP-22) to breeding age mares. This alternative would gather 748 excess animals for removal, and gather a sufficient number of wild horses beyond the excess wild horses to be removed, so as to allow for the application of fertility control (PZP-22_to 22-35% of the mares that will remain in the HMAs. There would be no sex ratio adjustment with this alternative. However, during the initial gather, it may be difficult to gather a large enough portion of the wild horse population to administer fertility control to enough mares to impact the population growth rate. With each subsequent gather, the percentage of mares treated would increase due to the lower population size within the HMAs, which in turn should lower the population growth rate. Though repeated treatments would be required in order to maintain AMLs, the number of wild horses to be removed over time would be lower. This alternative would decrease the existing overpopulation of wild horses and their impacts to rangeland resources would be reduced; however, implementation of this alternative would result in significantly increased gather and fertility control costs. The time needed to complete a gather would increase over time because when an area is frequently gathered, the wild horses become much more difficult to trap. They become very evasive, and learn to evade the helicopter by taking cover in treed areas and canyons. Wild horses would also move out of the area when they hear a helicopter, thereby further reducing the overall gather efficiency. Frequent gathers would also increase stress to wild horses both as individuals and as entire herds. It would become increasingly more difficult over time to repeat gathers every two years to successfully treat a large portion of the population. Therefore, due to the size of the area, the terrain involved, stress to the wild horses, and the difficulty involved in repeatedly gathering the wild horses, and given that other reasonable management options exist, this alternative was dropped from detailed study.

Remove or Reduce Livestock within the HMAs

This alternative would involve no removal of wild horses and instead address the excess wild horse numbers through the removal or reduction of livestock within the HMAs. This alternative was not brought forward for detailed analysis because it is inconsistent with the 2008 Ely District ROD Approved RMP (August 2008), Pinyon Management Framework Plan (PMFP) (1983) and the WFRHBA which directs the Secretary to immediately remove excess wild horses if

necessary to achieve a thriving natural ecological balance, and is inconsistent with statutory directives to manage the public lands for multiple use. Additionally, livestock grazing can only be reduced or eliminated following the regulatory process set forth at 43 CFR Part 4100 and 4700. Such changes to livestock grazing cannot be made through a wild horse gather decision.

Final Multiple Use Decisions (FMUDs) were issued for allotments within the Eagle HMA. These decisions established stocking rates for wild horses and livestock, seasons of use, areas of use, kind and class of livestock and management actions to improve livestock distribution and to implement grazing systems, including allowable forage utilization levels, salting and herding practices. Livestock reductions through the Multiple Use Decision process have been implemented on allotments within the Eagle HMA, and continue to be evaluated for allotments and use areas within the HMA as additional data becomes available. Monitoring and evaluation of livestock grazing is in accordance with the Ely District Record of Decision and Approved Resource Management Plan dated August 20, 2008. This action is specifically provided for in Management Decisions LG-4 and LG-5.

The goals and objectives for livestock grazing found in the Ely District Record of Decision and Approved Resource Management Plan signed August 20, 2008, states, "Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health." In addition, "To allow livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health (p 85-86)."

Management Action LG-4 states, "Continue to monitor and evaluate allotments to determine if they are continuing to meet or are making significant progress toward meeting the standards for rangeland heath. Table E-1 in Appendix E shows the current grazing preference, season-of-use, and kind of livestock for those allotments that currently are evaluated for meeting standards, are making progress toward achieving the standards, or are in conformance with the policies as determined either through the allotment evaluation process or associated with fully processed term permit renewals. Changes, such as improved livestock management, new range improvement projects, and changes in the amount and kinds of forage permanently available for livestock use, can lead to changes in preference, authorized season-of-use, kind of livestock. Such changes will continue to meet the RMP goals and objectives, including the standards for rangeland health."

Management Action LG-5 states, "Maintain the current grazing preference, season-of-use, and kind of livestock until the allotments that have not been evaluated for meeting or making progress toward meeting the standards or are in conformance with the policies are evaluated. Depending on the results of the standards assessment, maintain or modify grazing preference, seasons-of-use, kind of livestock and grazing management practices to achieve the standards for rangeland health. Changes, such as improved livestock management, new range improvement projects, and changes in the amount and kinds of forage permanently available for livestock use, can lead to changes in preference, authorized season-of-use, or kind of livestock. Ensure changes continue to meet the RMP goals and objectives, including the standards for rangeland health."

Decision Records authorizing livestock grazing permits within the Chokecherry and Mt. Elinore HMAs have all been issued in the last five years. These decisions established stocking rates for

livestock. The decisions also established seasons of use, areas of use, kind and class of livestock and management actions to improve livestock distribution, these management actions included, the establishment of grazing systems, allowable use levels, salting and herding practices. Livestock reductions through this process were implemented on allotments within the Chokecherry and Mt. Elinore HMAs. Livestock grazing systems have therefore been modified to better control livestock movements and the total level of livestock grazing has been reduced over the years. Wild horses, however, are present year-round, and their impacts to rangeland resources cannot be controlled through establishment of a grazing system, such as for livestock. Thus, impacts from wild horses can only be addressed by limiting their numbers to a level that does not adversely impact rangeland resources and other multiple uses.

While the BLM is authorized to remove livestock from HMAs "*if necessary to provide habitat for wild horses or burros, to implement herd management actions, or to protect wild horses or burros from disease, harassment or injury*" (43 CFR § 4710.5), this authority is usually applied in cases of specific emergency conditions and not for the general management of wild horses under the WFRHBA, as wild horse management is based on the land-use planning process, multiple use decisions, and establishment of AML. For these reasons, this alternative was eliminated from further consideration.

Gathering the HMAs to upper range of AML

This alternative would only remove excess wild horses to achieve the upper range of AML (rather than the low range of AML). If the wild horses are gathered to achieve a post-gather population that is at the upper level of the AML, this would result in AMLs being exceeded following the next foaling season (spring 2011). This would be problematic for several reasons.

The upper level of the AMLs established for the HMAs represent the maximum population at which a thriving natural ecological balance can be maintained. The lower level represents the number of animals that should remain in the HMAs following a wild horse gather in order to allow for a periodic gather cycle of approximately every 4 years and to prevent the population from exceeding the established AML between gathers. The need to gather below the upper range of AML has been recognized by the IBLA, which has held that AML means, "that 'optimum' number of wild horses which results in a thriving natural ecological balance and avoids a deterioration of the range" (109 IBLA 119) and where "Proper range management dictates removal of horses before the herd size causes damage to the range land. Thus, the optimum number of horses is somewhere below the number that would cause resource damage" (118 IBLA 75).

Additionally, gathering to the upper range of AMLs, would result in the need to follow up with another gather within one year and could result in overutilization of vegetation resources and further damage to the rangeland. For these reasons, this alternative was eliminated from further analysis.

Control of Wild Horse Numbers by Natural Means

This alternative would use natural means, such as natural predation, to control the wild horse population. This alternative was eliminated from further consideration, however, because it is contrary to the WFRHBA which requires the BLM to prevent the range from deterioration associated with an overpopulation of wild horses. It is also inconsistent with the 2007 Ely RMP,

2003 Wild Horse Amendment and the Pinyon MFP which directs that Ely and Color Country Districts BLM conduct gathers as necessary to achieve and maintain AMLs. The alternative of using natural controls to achieve a desirable AML has not been shown to be feasible in the past. Wild horse populations in the Eagle, Chokecherry and Mt. Elinore HMAs are not substantially regulated by predators, as evidenced by the 20-25% annual increase in the wild horse populations within these HMAs. In addition, wild horses are a long-lived species with documented foal survival rates exceeding 95% and they are not a self-regulating species. This alternative would result in a steady increase in the wild horse populations which would continue to exceed the carrying capacity of the range until severe or unusual conditions that occur periodically-- such as blizzards or extreme drought-- cause a catastrophic mortality of wild horses in the HMAs.

3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL EFFECTS

General Setting

The Eagle HMA is located in northeastern Lincoln County approximately 30 air miles southeast Ely, Nevada, and 20 miles northeast of Caliente, Nevada. The Chokecherry and Mt. Elinore HMAs are located in the western Iron and Beaver Counties approximately 50 air miles northwest of Cedar City, Utah. The area is within the Great Basin physiographic regions, characterized by a high, rolling plateau underlain by basalt flows covered with a thin loess and alluvial mantle. On many of the low hills and ridges that are scattered throughout the area, the soils are underlain by bedrock. Elevations within the HMAs range from approximately 5,000 feet to 9,500 feet. Annual precipitation ranges from approximately 7 inches on some of the valley bottoms to 20 inches on the mountain peaks. Most of this precipitation comes during the winter and spring months in the form of snow, supplemented by localized thunderstorms during the summer months. Temperatures range from greater than 90 degrees Fahrenheit in the summer months to minus 20 degrees in the winter. The area is also utilized by domestic livestock and numerous wildlife species.

Table 3 summarizes which of the critical elements of the human environment and other resources of concern within the project area are present, not present or not affected by the proposed action.

Table 3. Summary of Critical and Other Elements of the Human Environment

Resource/Concern	Issue(s) Analyzed? (Y/N)	Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis
Air Quality	N	The affected area is not within an area of non-attainment or areas where total suspended particulates or other criteria pollutants exceed Nevada air quality standards. Any increased particulate matter (dust) resulting from the proposed action would be short term (temporary) and minimal.
Areas of Critical Environmental Concern (ACEC)	N	Not present in the designated HA boundaries.

Cultural Resources	N	Cultural sites would be avoided by setting temporary holding facilities on previously disturbed areas and by relocating gather sites to avoid cultural resources. Cultural resources around springs would also be better protected with wild horse removal.
Forest Health	N	Project has a negligible impact on forest health.
Migratory Birds	N	Proposed action would occur outside of the migratory bird nesting season.
Native American Religious and other Concerns	N	No potential traditional religious or cultural sites of importance have been identified in the project according to the Ely District RMP Ethnographic report (2003).
Wastes, Hazardous or Solid	N	The proposed action will not use or introduce any hazardous or solid wastes.
Water Quality, Drinking/Ground	N	No effects to water quality are expected. The proposed action will avoid spring riparian, and stream locations.
Environmental Justice	N	No environmental justice issues are present at or near the gather area.
Floodplains	N	No floodplains have been identified by HUD or FEMA within the project area. Floodplains as defined in Executive Order 11988 may exist in the area, but would not be affected by the proposed action.
Farmlands, Prime and Unique	N	There are soils within the HMA that have been designated by the Natural Resource Conservation Service as meeting the requirements to be considered prime farmlands. Localized trampling of these soils may occur at the trap sites. The proposed action will not contribute to the loss of these potential farmlands.
Threatened and Endangered Species	N	Not present.
Wetlands/Riparian Zones	Y	Analysis in EA
Non-native Invasive and Noxious Species	Y	Analysis in EA
Wilderness/WSA	Y	Analysis in EA
Human Health and Safety	Y	Analysis in EA
Wild and Scenic Rivers	N	Not Present
Special Status Animal Species, other than those listed or proposed by the FWS as threatened or Endangered.	Y	Analysis in EA
Special Status Plant Species, other than those listed or proposed by the FWS as Threatened or Endangered. Also, ACECs designated to protect special status plant species.	Y	Analysis in EA

Fish and Wildlife	Y	Analysis in EA
Wild Horses	Y	Analysis in EA
Soils/Watershed	Y	Analysis in EA
Livestock Grazing	Y	Analysis in EA
Water Resources (Water Rights)	N	No adverse effects to water resources or water rights are expected as the proposed action will avoid spring, riparian, and stream locations.
Mineral Resources	N	There would be no modifications to mineral resources through the proposed action.
Vegetative Resources	Y	Analysis in EA

Identification of Issues:

Internal scoping was conducted by an interdisciplinary (ID) team on Aug 10, 2009, that analyzed the potential consequences of the Proposed Action. Potential impacts to the following resources/concerns were evaluated in accordance with criteria listed in the H-1790-1 NEPA Handbook (2008) page 41, to determine if detailed analysis was required. Consideration of some of these items is to ensure compliance with laws, statutes or Executive Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general, and to the Ely and Color Country Districts BLM in particular.

4.0 Environmental Consequences

The following critical or other elements of the human environment are present and may be affected by the proposed action or the alternatives. The affected environment is described for the reader to be able to understand the impact analysis.

4.1. Wild Horses

Affected Environment

Wild horses are an introduced species within North America and have few natural predators. Few natural controls act upon wild horse herds making them very competitive with native wildlife and other living resources managed by the BLM.

Eagle HMA

The Schell (1983) and Caliente (1982) MFPs (Ely District) designated the Deer Lodge Canyon and Wilson Creek (Fortification and Patterson-Eagle Herd Areas) HMAs for the long-term management of wild horses. These HMAs were later combined into the Eagle HMA in the Ely District Record of Decision (ROD) and Approved Resource Management Plan (RMP) in August 2008 due to the interchange between the two HMAs. The HMA is nearly identical in size and shape to the original Herd Areas representing where wild horses were located in 1971. Currently, management of HMAs and wild horse population is guided by the Ely District ROD and RMP. The AML range for the HMA is 100-210 wild horses.

Four gathers have been completed in the past on portions of the HMA. Approximately 1252

wild horses have been removed from the Eagle HMA in the last 20 years; populations are thriving and have not been negatively impacted. An Appropriate Management Level determination for the Eagle HMA was re-affirmed through Ely *Proposed Resource Management Plan/Final Environmental Impact Statement* (RMP/EIS, 2007) released in November 2007.

Mt. Elinore and Chokecherry HMAs

The Appropriate Management Levels (AMLs) set in the Pinyon MFP were established at the population levels that existed between 1971 and 1982. The AMLs within the Chokecherry and Mt. Elinore HMAs remain as set in the MFP. The wild horses from these HMAs travel back and forth across the Nevada/Utah border, mixing with wild horses from Nevada's Eagle HMA. Populations in the Utah HMAs have fluctuated from at or near the upper range of the AMLs (Mt. Elinore 15-25 head, and Chokecherry 30 head) to more than double the AMLs because of movement from Nevada's HMA.

Two gathers have been completed in the past on these HMAs one gather was conducted in 2007 where 25 horses were gathered from each HMA. Another gather took place in 1989 where 20 horses were removed from Chokecherry HMA. Approximately 70 wild horses have been directly removed from the Mt. Elinore and Chokecherry HMAs in the last 20 years; populations are thriving and have not been negatively impacted. Some wild horses from the Chokecherry and Mt. Elinore HMAs crossed over the HMA boundary and were removed from the area during past gathers on the Eagle HMA (Wilson Creek and Deer Lodge Canyon HMAs).

Population inventory flights have been conducted in the Eagle, Chokecherry, and Mt. Elinore HMAs every two to three years. These population inventory flights have provided information pertaining to population numbers, foaling rates, distribution, and herd health. Population inventories were last conducted December 2009 on the HMAs. An aerial direct count population inventory of the Eagle Chokecherry and Mt. Elinore HMAs in December of 2009 observed 595 wild horses within and outside of the Eagle HMA, 71 wild horses in Chokecherry HMA and 66 wild horses in Mt. Elinore HMA. The current estimated population within (and outside of) the Eagle HMA is 714 wild horses (which includes the addition of the 2010 foal crop). The current population estimate (including the 2010 foal crop) for Chokecherry HMA is 85 wild horses and for Mt. Elinore HMA is 79 wild horses. The wild horse body condition score (BCS) for wild horses within the HMAs range from a score of 3-4. Some wild horses within the HMAs were found to be at a BCS of 4, whereas some of the older horses were found to be at a 3 BCS based on the Henneke Body Condition Chart. Genetic baseline data will be collected to establish the genetic diversity of the wild horses within the Eagle, Chokecherry, and Mt. Elinore HMAs. Last winter, wild horse use of forage species on many key areas of the HMAs was heavy to severe.

Rangeland resources and wild horse health have been and are currently being affected within the Chokecherry and Mt. Elinore Herd Management Areas (HMAs) due to the over-population of wild horses. Utilization data was collected from the Gold Springs Seeding pasture in 2007. Without any livestock use the utilization on key forage species in 2007 the use was severe as a result of excess wild horse use. Multiple rangeland health evaluation and riparian write-ups identify wild horses as one of the factors affecting non-achievement of management objectives. These evaluations and write-up are available at the CCFO.

Within the Eagle HMA monitoring data collected using Range Utilization Key Forage Plant Method (KFPM) over the last three years has indicated moderate (41-60%) and heavy (61-80%) utilization by wild horses, whereas use by all foragers (livestock, wild horses and wildlife) should not exceed moderate use levels for healthy rangelands. Monitoring of wild horse use throughout the HMA in March 2009 measured 21% of the HMA at moderate (41-60%), 35% at heavy (61-80%) , and 35% being at severe (81-100%) use. This use occurred at key areas including along the Fortification Range, South Spring Valley, Lake Valley, White Rock Mountains, Eagle Fire, Reed Cabin, Chokecherry and Deer Lodge (See appendix IV Eagle HMA Utilization). Kind of use when monitoring is determined by signs of feces and trailing in the area.

Photograph showing a Winterfat site in the Fortification Range 3-29-2009 (heavy/severe horse use).

Population modeling was completed for the Eagle, Chokecherry, and Mt. Elinore Herd Management Areas as a complex to project potential impacts that could occur to the wild horse populations under the different alternatives. 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 population are not likely. Graphic and tabular results are displayed in detail in Appendix V.

Environmental Impacts

Proposed Action – The Proposed Action would remove excess wild horses within the HMAs and outside the Eagle, Chokecherry and Mt. Elinore HMA boundaries. Under this alternative, excess wild horses would be removed to the lower limit of the AMLs. The sex ratio of animals released back to the range following the gather would be slightly adjusted in favor of males, and fertility control would be applied to all breeding age mares that are released. Successful implementation of this alternative would be dependent on gathering 90-95% of the current population in order to have enough animals available for release post-gather. Historically, gather efficiencies have

averaged only about 75-80% on these HMAs; at this level of efficiency, all the wild horses gathered would need to be removed in order to restore population size to within the established AMLs. Due to historical low gather efficiencies, a follow up gather may be needed in the winter of 2012 or 2013 to achieve AML and complete the proposed action.

Assuming enough animals could be gathered to allow for at least some animals to be released post gather, all mares selected for release would be treated with a two-year Porcine Zona Pellucida (PZP-22) or similar vaccine and released back to the range. Immuno-contraceptive treatments would be conducted in accordance with the approved standard operating and post-treatment monitoring procedures (SOPs, Appendix II). Mares would be selected to maintain a diverse age structure, herd characteristics and conformation (body type).

Each released mare would receive a single dose of the two-year PZP contraceptive vaccine. When injected, PZP (antigen) causes the mare's immune system to produce antibodies and these antibodies bind to the mare's eggs, and effectively block sperm binding and fertilization (Zoo, Montana, 2000). PZP is relatively inexpensive, meets BLM requirements for safety to mares and the environment, and can easily be administered in the field. In addition, among mares, PZP contraception appears to be completely reversible. One-time application at the capture site would not affect normal development of the fetus, hormone health of the mare or behavioral responses to stallions, should the mare already be pregnant when vaccinated (Kirkpatrick, 1995). The vaccine has also proven to have no apparent effect on pregnancies in progress, the health of offspring, or the behavior of treated mares (Turner, 1997).

The highest success for fertility control has been obtained when applied during the timeframe of November through February. The efficacy for the application of the two-year PZP vaccine based on winter applications follows:

Year 1	Year 2	Year 3	Year 4
Normal	94%	82%	68%

The treatment would be controlled, handled, and administered by a trained BLM employee. Mares receiving the vaccine would experience slightly increased stress levels associated with handling while being vaccinated and freeze-marked. Serious injection site reactions associated with fertility control treatments are rare in treated mares. Any direct impacts associated with fertility control, such as swelling or local reactions at the injection site, would be minor in nature and of short duration. Most mares recover quickly once released back to the HMA, and none are expected to have long term impact from the fertility control injections. Mares treated and released during the previous gathers were freeze-marked on the left hip with two 4 inch letters for future identification. These identifiers would be recorded along with age and health of the mare for future analysis. Additional letters could be added for future tracking purposes. Newly captured mares that are not marked would be marked with new freeze-mark letters. This information would also be used to determine the number of mares captured that were not previously treated and provide additional insight to gather efficiency.

Ransom et al. (2010) found no differences in how PZP-treated and control mares allocated their time between feeding, resting, travel, maintenance, and social behaviors in 3 populations of wild horses, which is consistent with Powell's (1999) findings in another population. Likewise, body condition of PZP-treated and control mares did not differ between treatment groups in Ransom et

al.'s (2010) study. Turner and Kirkpatrick (2002) found that PZP-treated mares had higher body condition than control mares in another population, presumably because energy expenditure was reduced by the absence of pregnancy and lactation.

In two studies involving a total of 4 wild horse populations, both Nunez et al. (2009) and Ransom et al. (2010) found that PZP-treated mares were involved in reproductive interactions with stallions more often than control mares, which is not surprising given the evidence that PZP-treated females of other mammal species can regularly demonstrate estrus behavior while contracepted (Shumake and Wilhelm 1995, Heilmann et al. 1998, Curtis et al. 2002). Ransom et al. (2010) found that control mares were herded by stallions more frequently than PZP-treated mares, and Nunez et al. (2009) found that PZP-treated mares exhibited higher infidelity to their band stallion during the non-breeding season than control mares. Madosky et al. (in press) found this infidelity was also evident during the breeding season in the same population that Nunez et al. (2009) studied, resulting in PZP-treated mares changing bands more frequently than control mares. Long-term implications of these changes in social behavior are currently unknown.

Studs selected for release would be to increase the post-gather sex ratio to approximately 60% studs in the remaining herds. Studs would be selected to maintain a diverse age structure, herd characteristics and body type (conformation).

Removal of excess wild horses would improve herd health. Decreased competition for forage and water resources would reduce stress and promote healthier animals. This coupled with reduced reproduction as a result of fertility control and sex ratio adjustments should result in improved health and condition of mares and foals and allow for healthy range conditions over the longer-term. Additionally, 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.

Bringing the wild horse population back to low range AML would reduce damage to the range from the current overpopulation of wild horses and allow vegetation resources time to start recovering over the next 4 years, without the need for additional gathers in the interim. As a result, there would be fewer disturbances to individual animals and the herd, and a more stable wild horse social structure would be provided.

Impacts to individual animals may occur as a result of handling stress associated with the gather, processing, and transportation of animals. The intensity of these impacts varies by individual animal and is indicated by behaviors ranging from nervous agitation to physical distress. Mortality to individual animals is infrequent but does occur in one half to one percent of wild horses gathered in a given gather. Other impacts to individual wild horses include separation of members of individual bands of wild horses and removal of animals from the population.

Indirect impacts can also occur after the initial stress event, and may include increased social displacement or increased conflict between studs. These impacts are known to occur intermittently during wild horse gather operations. Traumatic injuries may occur, and typically involve biting and/or kicking bruises, which do not break the skin.

Temporary Holding Facilities During Gathers
Wild horses that are gathered would be transported from the trap sites to a temporary holding corral within the HMAs in goose-neck trailers. At the temporary holding corral wild horses will be sorted into different pens based on sex. The horses will be aged and fed good quality hay and water. Mares and their un-weaned foals will be kept in pens together.

At the temporary holding facility, a veterinarian, when present, will provide recommendations to the BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses. Any animals affected by a chronic or incurable disease, injury, lameness or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital abnormalities) would be humanely euthanized using methods acceptable to the American Veterinary Medical Association (AVMA).

Transport, Short Term Holding, and Adoption Preparation
Wild horses removed from the range would be transported to the receiving short-term holding facility in a goose-neck stock trailer or straight-deck semi-tractor trailers. Trucks and trailers used to haul the wild horses will be inspected prior to use to ensure wild horses can be safely transported. Wild horses will be segregated by age and sex when possible and loaded into separate compartments. Mares and their un-weaned foals may be shipped together. Transportation of recently captured wild horses is limited to a maximum of 8 hours. During transport, potential impacts to individual horses can include stress, as well as slipping, falling, kicking, biting, or being stepped on by another animal. Unless wild horses are in extremely poor condition, it is rare for an animal to die during transport.

Upon arrival, recently captured wild horses are off-loaded by compartment and placed in holding pens where they are fed good quality hay and water. Most wild horses begin to eat and drink immediately and adjust rapidly to their new situation. At the short-term holding facility, a veterinarian provides recommendations to the BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses. Any animals affected by a chronic or incurable disease, injury, lameness or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital abnormalities) would be humanely euthanized using methods acceptable to the AVMA. Wild horses in very thin condition or animals with injuries are sorted and placed in hospital pens, fed separately and/or treated for their injuries. Recently captured wild horses, generally mares, in very thin condition may have difficulty transitioning to feed. A small percentage of animals can die during this transition; however, some of these animals are in such poor condition that it is unlikely they would have survived if left on the range.

After recently captured wild horses have transitioned to their new environment, they are prepared for adoption or sale. Preparation involves freeze-marking the animals with a unique identification number, vaccination against common diseases, castration, and de-worming. During the preparation process, potential impacts to wild horses are similar to those that can occur during transport. Injury or mortality during the preparation process is low, but can occur.

At short-term corral facilities, a minimum of 700 square feet is provided per animal. Mortality at short-term holding facilities averages approximately 5% (GAO-09-77, Page 51), and includes

animals euthanized due to a pre-existing condition, animals in extremely poor condition, animals that are injured and would not recover, animals which are unable to transition to feed; and animals which die accidentally during sorting, handling, or preparation.

Adoption

Adoption applicants are required to have at least a 400 square foot corral with panels that are at least six feet tall. Applicants are required to provide adequate shelter, feed, and water. The BLM retains title to the horse for one year and the horse and facilities are inspected. After one year, the applicant may take title to the horse at which point the horse become the property of the applicant. Adoptions are conducted in accordance with 43 CFR § 5750.

Sale with Limitation

Buyers must fill out an application and be pre-approved before they may buy a wild horse. A sale-eligible wild horse is any animal that is more than 10 years old or has been offered unsuccessfully for adoption at least three times. The application also specifies that all buyers are not to sell to slaughter buyers or anyone who would sell the animals to a commercial processing plant. Sale of wild horses are conducted in accordance with the 1971 WFRHBA and congressional limitations.

Long Term Pastures

During the past three years, the BLM has removed over 19,414 excess wild horses or burros from the Western States. Most animals not immediately adopted or sold have been transported to long-term grassland pastures in the Midwest.

Potential impacts to wild horses from transport to adoption, sale or long term pastures (LTP) are similar to those previously described. One difference is that when shipping wild horses for adoption, sale or LTP, animals may be transported for up to a maximum of 24 hours. Immediately prior to transportation, and after every 24 hours of transportation, animals are offloaded and provided a minimum of 8 hours on-the-ground rest. During the rest period, each animal is provided access to unlimited amounts of clean water and two pounds of good quality hay per 100 pounds of body weight with adequate bunk space to allow all animals to eat at one time. The rest period may be waived in situations where the anticipated travel time exceeds the 24-hour limit but the stress of offloading and reloading is likely to be greater than the stress involved in the additional period of uninterrupted travel.

Long-term grassland pastures are designed to provide excess wild horses with humane, and in some cases life-long care in a natural setting off the public rangelands. There wild horses are maintained in grassland pastures large enough to allow free-roaming behavior and with the forage, water, and shelter necessary to sustain them in good condition. About 22,700 wild horses, that are in excess of the current adoption or sale demand (because of age or other factors such as economic recession), are currently located on private land pastures in Oklahoma, Kansas, and South Dakota. Establishment of LTP was subject to a separate NEPA and decision-making process. Located in mid or tall grass prairie regions of the United States, these LTP are highly productive grasslands compared to more arid western rangelands. These pastures comprise about 256,000 acres (an average of about 10-11 acres per animal). Of the animals currently located in LTP, less than one percent is age 0-4 years, 49 percent are age 5-10 years, and about

51 percent are age 11+ years.

Mares and sterilized stallions (geldings) are segregated into separate pastures except at one facility where geldings and mares coexist. Although the animals are placed in LTP, they remain available for adoption or sale to qualified individuals; and foals born to pregnant mares in LTP are gathered and weaned when they reach about 8-12 months of age and are also made available for adoption. The LTP contracts specify the care that wild horses must receive to ensure they remain healthy and well-cared for. Handling by humans is minimized to the extent possible although regular on-the-ground observation by the LTP contractor and periodic counts of the wild horses to ascertain their well being and safety are conducted by BLM personnel and/or veterinarians. A very small percentage of the animals may be humanely euthanized if they are in very poor condition due to age or other factors. Although horses residing on LTP facilities live longer, on the average, than wild horses residing on public rangelands, natural mortality of wild horses in LTP averages approximately 8% per year, but can be higher or lower depending on the average age of the horses pastured there (GAO-09-77, Page 52).

Euthanasia and Sale Without Limitation

While euthanasia and sale without limitation has been limited by Congressional appropriations, it is allowed under the WFRHBA. Neither option is available for horses under the Department of the Interior's fiscal year 2010 budgetary appropriations.

Wild Horses Remaining or Released into the HMA following Gather

Under the Proposed Action, the post-gather population of wild horses would be about 145 wild horses, which is the combined low range of the AML for the three HMAs. Reducing population size would also ensure that the remaining wild horses remain healthy and vigorous, and that the wild horses in the HMA are not at risk of death or suffering as a result of starvation due to insufficient forage and/or water as a result of frequent drought conditions.

The wild horses that are not captured may be temporarily disturbed and may move into another area during the gather operations. With the exception of changes to herd demographics, direct population wide impacts from a gather have proven, over the last 20 years, to be temporary in nature with most if not all impacts disappearing within hours to several days of when wild horses are released back into the HMA. No observable effects associated with these impacts would be expected within one month of release, except for a heightened awareness of human presence.

As a result of lower density of wild horses across the HMA following the removal of excess horses, competition for resources would be reduced, allowing wild horses to utilize preferred, quality habitat. Confrontations between stallions would also become less frequent, as would fighting among wild horse bands at water sources. Achieving the AML and improving the overall health and fitness of wild horses could also increase foaling rates and foaling survival rates over the current conditions.

The primary effects to the wild horse population as a direct result of this proposed gather would be to herd population dynamics, age structure or sex ratio, and subsequently to the growth rates and population size over time.

The wild horses that remain in the HMA following the gather would maintain their social structure and herd demographics (age and sex ratios). No observable effects to the remaining population associated with the gather impacts would be expected except a heightened shyness toward human contact.

Impacts to the rangeland as a result of the current overpopulation of wild horses would be reduced under both the proposed action and Alternative B. Fighting among stud horses would decrease since they would protect their position at water sources less frequently; injuries and death to all age classes of animals would also be expected to be reduced as competition for limited forage and water resources is decreased.

Indirect individual impacts are those impacts which occur to individual wild horses after the initial stress event, and may include spontaneous abortions in mares, and increased social displacement and conflict in studs. These impacts, like direct individual impacts, are known to occur intermittently during wild horse gather operations. An example of an indirect individual impact would be the brief skirmish which occurs among older studs following sorting and release into the stud pen, which lasts less than two minutes and ends when one stud retreats. Traumatic injuries usually do not result from these conflicts. These injuries typically involve a bite and/or kicking with bruises which don't break the skin. Like direct individual impacts, the frequency of occurrence of these impacts among a population varies with the individual animal.

Spontaneous abortion events among pregnant mares following capture is also rare, though poor body condition can increase the incidence of such spontaneous abortions. Given the timing of this gather, spontaneous abortion is not considered to be an issue for the proposed gather.

Oftentimes, foals are gathered that were orphaned on the range (prior to the gather) because the mother rejected it or died. These foals are usually in poor, unthrifty condition. Orphans encountered during gathers are cared for promptly and rarely die or have to be euthanized. Due to the timing of the proposed gather, it is unlikely that orphan foals will be encountered as the majority of the current year's (2010) foals will be weaned already from their mothers. In private industry, domestic horses are normally weaned between four and six months of age.

Gathering the wild horses during the Fall/Winter reduces risk of heat stress, although this can occur during any gather, especially in older or weaker animals. Adherence to the SOPs as well and techniques used by the gather contractor help minimize the risks of heat stress. Heat stress does not occur often, but if it does, death can result. Most temperature related issues during a gather can be mitigated by adjusting daily gather times to avoid the extreme hot or cold periods of the day.

Through the capture and sorting process, wild horses are examined for health, injury and other defects. Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy. BLM Euthanasia Policy IM-2009-041 is used as a guide to determine if animals meet the criteria and should be euthanized (refer to SOPs Appendix I). Animals that are euthanized for non-gather related reasons include those with old injuries (broken hip, leg) that have caused the animal to suffer from pain or which prevent them from being able to travel or maintain body condition; old animals that have lived a successful life on

the range, but now have few teeth remaining, are in poor body condition, or are weak from old age; and wild horses that have congenital (genetic) or serious physical defects such as club foot, or sway back and should not be returned to the range.

The BLM has been gathering excess wild horses from public lands since 1975, and has been using helicopter for such gathers since the late 1970's. Refer to Appendix I for information about methods that are utilized to reduce injury or stress to wild horses and burros during gathers. Since 2004, BLM Nevada has gathered over 26,000 excess animals. Of these, gather related mortality has averaged only 0.5% which is very low when handling wild animals. Another 0.6% of the animals captured were humanely euthanized due to pre-existing conditions and in accordance with BLM policy. This data affirms that the use of helicopters and motorized vehicles is a safe, humane, effective and practical means for gathering and removing excess wild horses and burros from the range. BLM policy prohibits the gathering of wild horses with a helicopter, (unless under emergency conditions), during the period of March 1 to June 30 which includes and covers the six weeks that precede and follow the peak of foaling period (mid-April to mid-May).

Alternative B – Impacts from this alternative would be similar to the Proposed Action, however there would be no horses released, no sex ratios would be adjusted and fertility control would not be applied. AMLs would be achieved but may exceed the high end of AMLs sooner than under the proposed action.

No Action Alternative – If No Action is taken, excess wild horses would not be removed from within or outside the Eagle, Chokecherry and Mt. Elinore HMAs at this time. The animals would not be subject to the individual direct or indirect impacts as a result of a gather operation in January 2010. Over the short-term, individuals in the herds would be subject to increased stress and possible death as a result of increased competition for water and forage as the wild horse populations continue to grow even further in excess of the range's carrying capacity. The number of areas experiencing severe utilization by wild horses would increase over time. This would be expected to result in increasing damage to rangeland resources throughout the HMAs. Trampling and trailing damage by wild horses in/around riparian areas would also be expected to increase, resulting in larger, more extensive areas of bare ground. Competition for the available water and forage between wild horses, domestic livestock, and native wildlife would increase.

Wild horses are a long-lived species with documented survival rates exceeding 92% for all age classes. Predation and disease have not substantially regulated wild horse population levels within or outside the Eagle, Chokecherry, and Mt. Elinore HMAs. Throughout the HMAs administered by the Ely and Color Country Districts few predators exist to control wild horse populations. Some mountain lion predation occurs, but does not appear to be substantial. Coyote are not prone to prey on wild horses unless young, or extremely weak. Other predators such as wolf or bear do not exist. As a result, there would be a steady increase in wild horse numbers for the foreseeable future, which would continue to exceed the carrying capacity of the range. Individual horses would be at risk of death by starvation and lack of water. The population of wild horses would compete for the available water and forage resources, affecting mares and foals most severely. Social stress would increase. Fighting among stud horses would increase as they protect their position at scarce water sources, and increased injuries and death for all age

classes of animals would be anticipated. Significant loss of the wild horses in the HMAs due to starvation or lack of water would have obvious consequences to the long-term viability of the herd. Continued decline of rangeland health and irreparable damage to vegetative, soil and riparian resources, would have obvious adverse impacts to the future of the HMAs and all other users of the resources, which depend upon them for survival. As a result, the No Action Alternative would not ensure healthy rangelands that would allow for the management of a healthy, self-sustaining wild horse population, and would not promote a thriving natural ecological balance.

As populations increase beyond the capacity of the habitat, more bands of horses would leave the boundaries of the HMAs in search of forage and water, thereby increasing the probability of vehicular accidents along US Highway 93. This alternative would result in increasing numbers of wild horses in areas not designated for their use, and would not achieve the stated objectives for wild horse herd management areas, namely to "prevent the range from deterioration associated with overpopulation", and to "preserve and maintain a thriving natural ecological balance and multiple use relationship in that area".

4.2 Riparian/Wetland Areas and Surface Water Quality

Affected Environment

Riparian areas at high elevations support cottonwood and aspen woodlands. Small riparian areas and their associated plant species occur throughout the HMAs near seeps, springs, and along sections of perennial drainages. Many of these areas support limited riparian habitat (forage) and water flows. At the present time, wild horse use of the majority of these areas is averaging heavy to severe use. Trampling and trailing damage by wild horses is evident at most locations; soil compaction and surface and rill erosion is evident. The current overpopulation of wild horses is resulting in resource damage and preventing recovery of key sites. Most spring sources within the HMA are Functioning at Risk with a Downward Trend and wild horses are a contributing factor to this decline.

Environmental Impacts

Proposed Action – To avoid the direct impacts potentially associated with the gather operation, temporary trap sites and holding/processing facilities would not be located within riparian areas.

Managing the wild horse populations within the established AMLs over the next 4 years would be expected to initiate recovery of damaged riparian habitats. The amount of trampling/trailing would be reduced. Utilization of the available forage within the riparian areas would also be reduced to within allowable levels. Over the longer-term, continued management of wild horses within the established AMLs would be expected to result in healthier, more vigorous vegetative communities. Hoof action on the soil around unimproved springs and stream banks would be lessened which should lead to increased stream bank stability and decreased compaction and erosion. Improved vegetation around riparian areas would dissipate stream energy associated with high flows, and filter sediment, resulting in associated improvements in water quality. The Proposed Action would make progress towards achieving and maintaining proper functioning

condition at riparian areas. There would also be reduced competition among wildlife, wild horses, and domestic livestock for the available water.

Alternative B –Impacts from this alternative would be similar to the Proposed Action. AMLs would be achieved as a result of the gather, but wild horse populations may exceed the high end of AML sooner than under the proposed action. When wild horse numbers reach the high range of AML or are exceeded, damage to riparian areas may be more evident.

No Action Alternative – Wild horse populations would continue to grow. Increased wild horse use throughout the HMAs would continue to adversely impact riparian resources and their associated surface waters. Over the longer-term, as native plant health continues to deteriorate and plants are lost, soil erosion would increase. An opportunity to make progress toward achieving and maintaining properly functioning condition riparian areas would be foregone as ever increasing numbers of wild horses continue to trample and degrade riparian areas, springs and other water sources.

4.3 Wildlife, including Migratory Birds

Affected Environment

The Eagle, Chokecherry, and Mt. Elinore HMAs provides habitat for many species of wildlife, including large mammals like mule deer, pronghorn antelope, and Rocky Mountain elk. Yearlong habitat for mule deer occurs throughout the complex. A large area of crucial summer range occurs in the upper elevations of the Eagle, Chokecherry, and Mt. Elinore HMAs. The majority of the Eagle HMA outside of the Wilson Creek Range, Fortification Range, and White Rock range is yearlong pronghorn antelope habitat. The White Rock Range and Wilson Creek Range is Rocky Mountain elk yearlong habitat.

The Eagle, Chokecherry, and Mt. Elinore HMAs provide habitat for small mammals, birds (including migratory birds), reptiles, amphibians, and insects common to the Great Basin.

Environmental Impacts

Proposed Action – Individual animals of all species may be disturbed or displaced during gather operations. Large mammals and some birds may run or fly when the helicopter flies over looking for horses, but once the helicopter is gone the animals should return to normal activities. Small mammals, birds, and reptiles would be displaced at trap sites, but this would only be for a few days at each trap site. There would be no impact to animal populations, beyond temporary displacement, as a result of gather operations.

Because the HMAs would be gathered during the winter, there would be no impact to breeding and nesting sage grouse, and migratory birds.

Removing excess wild horses from the Eagle, Chokecherry, and Mt. Elinore HMAs would result in reduced competition between wild horses and wildlife, especially large mammals, for available forage and water resources. Managing wild horses within the range of AML would result in improved habitat conditions for all species of wildlife by increasing herbaceous

vegetative cover in the uplands and improving riparian vegetation and water quality at springs and seeps on which wildlife depend.

Completion of the gather and achievement of the established AMLs would provide the best opportunity for conservation, protection and preservation for all wildlife species and their habitats. Alternatives 1 and 2 would result in reduced competition with wildlife which would increase the quantity and quality of available forage. There would be fewer disturbances associated with wild horses along stream and riparian habitats and adjacent upland habitats.

Alternative B– Impacts from this alternative would be similar to the Proposed Action. AMLs would be achieved as a result of the gather, but wild horse populations may exceed the high end of AMLs sooner than under the proposed action. If populations reach the high range of AML or are exceeded with new foal crops, wildlife habitat conditions may begin to decline sooner relative to the proposed action.

No Action Alternative – Individual animals would not be disturbed or displaced under the no action alternative. Competition between wildlife and wild horses for forage and water resources would continue, and may even get worse as wild horse numbers continue to increase above AMLs. Wild horses are aggressive around water sources, and some wildlife may not be able to compete, which could lead to the death of individual animals. Wildlife habitat conditions would deteriorate as wild horse numbers above AML reduce herbaceous vegetative cover and riparian areas deteriorate. This could result in lower nesting success for sage grouse and migratory birds.

4.4 Special Status Plant and Animal Species (federally listed, proposed, or candidate threatened or endangered species; State listed species; and BLM sensitive species)

Affected Environment

There are no known federally listed or proposed species found in the Eagle, Chokecherry, and Mt. Elinore HMAs. Several BLM sensitive animal species are found within the HMAs including several species of bats, raptors, and other birds.

The sage grouse is a high-profile sensitive species that has been determined by the U.S. Fish and Wildlife Service to be warranted for listing but precluded due to higher priority species, and therefore considered a candidate species. Sage grouse use the majority of the Eagle HMA and portions of the Chokecherry HMA throughout the year for all of their seasonal habitat needs. These habitat needs include breeding (i.e., strutting grounds or leks), nesting and early brood-rearing, late brood-rearing or summer, and winter. Sage grouse require a herbaceous understory of forbs and grass to provide nest concealment, as well as provide a diet of forbs and insects for sage grouse and their chicks. Riparian areas are frequently used by sage grouse for late brood-rearing habitat. The Eagle HMA is located within the Lincoln population management unit (PMU) identified in the local sage grouse conservation plan. There are 16 known sage grouse leks within the Eagle HMA, and 5 within or adjacent to the Chokecherry HMA. At least 9 of the leks have been active within the past 5 years.

There is potential pygmy rabbit habitat within the Eagle HMA and documented sightings within

the Chokecherry HMA. Pygmy rabbits predominately inhabit tall sagebrush with deep friable soils for burrowing.

There are several BLM sensitive plant species that have been found within the Eagle HMA. These include the scarlet buckwheat, Pioche blazingstar, long calyx eggvetch, White River catseye, and Tunnel Springs beardtongue. Gather sites and operations would avoid areas where these species may exist. None have been identified within the Chokecherry or Mt. Elinore HMAs.

Environmental Impacts

Proposed Action – Individual raptors and birds may be disturbed during gather operations when the helicopter flies overhead looking for horses. Once the helicopter is gone these birds should return to normal activities. Because trap sites and holding corrals would not be located where sensitive animal and plant species are known to occur, there would be no impact from the placement of and activities at these facilities. Nor would there be any impacts to populations of special status species as a result of gather operations.

Removing excess wild horses from the Eagle, Chokecherry, and Mt. Elinore HMAs and managing wild horses within AMLs would result in improved habitat conditions for all special status animal species by increasing herbaceous vegetative cover in the uplands and improving riparian vegetation and water quality springs and seeps, thereby improving the habitat on which they depend. Sensitive plant species would be less likely to be grazed or trampled with the removal of excess wild horses. Additionally, gather sites would not be located within sensitive plant species populations.

Alternative B – Impacts would be the same as in the proposed action; however, improved habitat conditions for all special status animal species may not last as long because wild horse populations may exceed the high end of AMLs more quickly than under the proposed action.

No Action Alternative – Individual animals would not be disturbed or displaced because gather operations would not occur under the no action alternative. However, habitat conditions for all special status animal species would continue to deteriorate as wild horse numbers above the established AMLs further reduce herbaceous vegetative cover and trample riparian areas, springs and stream banks. Sensitive plant species would be more likely to be grazed and trampled under the no action alternative because there would be more wild horses in the HMAs.

4.5 Livestock

Affected Environment

The Eagle HMA includes portions of several livestock grazing allotments (see Appendix IV – Allotment Map). Permitted livestock grazing use in the HMA includes both cattle and sheep grazing during all seasons of the year (table 3).

Table 3. Eagle Herd Management Area

Allotment	Season of Use	Total Acres	% of	Ten Year	Percent of

			Allotment Within HMA	Average AUM Use	Permit Use
Wilson Creek	Cattle and Sheep: 3/1 to 2/28	846,246	32%	18215	38%
Deer Lodge	3/1 to 2/28	7,345	100%	119	71%
N4/N5	3/1 to 2/28	41,595	29%	138	17%
Rabbit Spring	6/1 to 3/15	20,766	23%	257	29%
McGuffy	3/1 to 2/28	21,911	95%	346	116%
Mahogany Peak	5/1 to 10/15	28,586	7%	271	38%
Geyser Ranch	3/1 to 2/28	539,941	16%	7249	59%
Condor Canyon	3/1 to 1/24	45,298	70%	175	26%
Cottonwood	11/1 to 6/15	49,964	60%	824	37%

There are four allotments (Wilson Creek U4 use area, Indian Peak, Chokecherry and Stateline) that occur in whole or in part within the Chokecherry HMA and five allotments (Modena Canyon, Gold Springs, Government Well, Atchison Creek, and Mt. Elinore) that occur in whole or in part within the Mt. Elinore HMA. Grazing overlap between livestock and wild horses occurs primarily in the Paradise Fire Emergency Stabilization Rehabilitation area, Gold Springs Allotment, and the Utah part of Wilson Creek Allotment in the U4 use area. Atchison Creek and Indian Peak Allotment are fenced from the Chokecherry and Mt. Elinore HMAs (see map 2). Permitted livestock grazing use in the HMAs includes both cattle and sheep grazing during all seasons of the year (table 3).

Table 4. Chokecherry and Mt. Elinore Herd Management Areas

Allotment	Season of Use	Kind of Livestock	Total Acres	% of Allotment Within HMA	Ten Year Average AUM Use	Percent of Permit Use
Wilson Creek (U4 Use Area)	5/1-10/31	Cattle	21,788	100%	See Above	Use area in Wilson Creek Allotment
Indian Peak	3/1-2/28	Cattle	84,320	8%	703	40%
Chokecherry	9/1-11/30	Cattle	8,542	100%	159	47%
Stateline	7/15-10/15	Cattle	18,255	51%	54	28%
Modena Canyon	12/1-4/30	Cattle	27,186	46%	36	31%
Gold Springs	3/1-10/15	Cattle	38,698	42%	241	42%
Government Well	1/1-3/31	Cattle	5,633	40%	32	14%
Atchison Creek	7/1-8/10	Cattle	37,675	4%	356	134%

Total acres include Private, State and Federal Acres for the Allotment or Pasture (U4 use area).

Livestock grazing also occurs in areas immediately adjacent to the HMAs. Permitted livestock grazing use has generally been reduced in recent years in a majority of the allotments. Through

the grazing Term Permit Renewal process, BLM continues to analyze livestock stocking levels, establish deferred seasons of grazing, rotated grazing areas, and establish water hauling areas that result in more evenly distributed livestock grazing. Since the last wild horse gather in 2007, licensed livestock use, or actual use, has generally been less than permitted use for each of the grazing allotments, in part due to persistent drought.

Environmental Impacts

Proposed Action – Past experience has shown that wild horse gather operations have few direct impacts to cattle and sheep grazing. Livestock located near gather activities would be temporarily disturbed or displaced by the helicopter and the increased vehicle traffic during the gather operation. Typically livestock would move back into the area once gather operations cease. Removal of excess wild horses would result in an increase in forage availability and quality, reducing competition between livestock and wild horses for available forage and water resources.

Alternative B – Impacts would be the same as in the Proposed Action, however, wild horse populations may increase at a faster rate and exceed the high range of AML sooner than under the proposed action.

No Action Alternative – Livestock would not be displaced or disturbed due to gather operations under the No Action Alternative, however, there would be continued competition with wild horses for limited water and forage resources. Livestock grazing would likely be impacted due to deteriorating range conditions.

4.6 Wilderness

Affected Environment

The Eagle HMA contains the White Rock Range, Parsnip Peak, and Fortification Range Wilderness Areas within the White Rock Wilderness Study Area (WSA) in Utah's Chokecherry HMA (see appendix IV Map #2 - Wilderness Areas). The wilderness areas are rugged, uplifted ranges, with isolated riparian areas. The lower elevations are thickly forested by pinyon pine and juniper. The wilderness areas within the Eagle and Chokecherry HMAs receive an extremely large amount of wild horse use during spring summer and fall months. During the winter the lower elevation areas receive year round wild horse use.

Environmental Impacts

Proposed Action – Impacts to opportunities for solitude could occur during gather operations due to the noise of the helicopter and increased vehicle traffic in proximity to the wilderness areas. Those impacts would cease when the gather was completed. No surface impacts within wilderness are anticipated to occur during the gather since all trap sites and holding facilities would be placed outside wilderness. Wilderness values of naturalness after the gather would be enhanced by a reduction in wild horse numbers and as a result of the improved ecological condition of the plant communities and other natural resources.

Alternative B – Impacts would be the same as described for the Proposed Action.

No Action Alternative – No direct impacts to wilderness due to gather operations would occur. Impacts to wilderness values of naturalness could be threatened through the continued growth of the wild horse populations. Wilderness areas currently receive moderate to heavy use by wild horses during certain times of the year. Increasing wild horse populations would be expected to further degrade the condition of vegetation and soil resources. The presence of heavy horse trails, trampled vegetation and areas of high erosion would continue to detract from the wilderness experience.

4.7 Noxious Weeds and Invasive Non-Native Species

Affected Environment

The BLM defines a weed as a non native plant that disrupts or has the potential to disrupt or alter the natural ecosystem function, composition and diversity of the site it occupies. The presence of weeds deteriorates the vegetative health of a site by outcompeting native vegetation for resources such as water and sunlight, as well as releasing plant toxins that inhibit native plant production. Weeds are invasive species that require a concerted effort (manpower and resources) to remove from the range, if they can be removed at all. "Noxious" weeds refer to those plant species which have been legally designated in national, state and county or local designations as unwanted or undesirable. Noxious weed species that are documented within the gather area are listed in Appendix III (weed risk assessment).

As indicated in Appendix III, No site specific weed survey was completed for this project. However the Ely District weed inventory data was consulted and inventory data from 2008 identified the following weed species are within the gather area:

Scientific Name	**Common Name**
Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea diffusa	Diffuse knapweed
Centaurea stoebe	Spotted knapweed
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress
Linaria dalmatica	Dalmatian toadflax
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar
Tribulus terrestris	Puncturevine

The following noxious and non-native, invasive species are documented along roads and drainages leading to the project area identified in the proposed action:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea diffusa	Diffuse knapweed
Centaurea stoebe	Spotted knapweed
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress

Lepidium latifolium	Tall whitetop
Linaria dalmatica	Dalmatian toadflax
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar
Tribulus terrestris	Puncturevine

While not officially documented the following non-native invasive weeds probably occur in or around the project area:

Bromus tectorum	Cheatgrass	*Halogeton glomeratus*	Halogeton
Ceratocephala testiculata	Bur buttercup	*Marrubium vulgare*	Horehound
Convolvulus arvensis	Field bindweed	*Salsola kali*	Russian thistle
Elaeagnus angustifolia	Russian olive	*Sysimbrium altissimum*	Tumble mustard
Erodium circutarium	Filaree	*Verbascum thapsus*	Common mullein

The Cedar City Field Office (CCFO) Noxious Weed inventory data does not show any noxious weeds within the Chokecherry or Mt. Elinore HMA boundaries. The CCFO vegetative data does show the non-native invasive weeds listed above to occur within the Chokecherry and Mt. Elinore Boundaries.

Environmental Impacts

Proposed Action – The proposed gather may spread existing noxious or invasive weed species if vehicles drive through existing weed infestations and spread seed into previously weed-free areas. To prevent this, any off-road equipment exposed to weed infestations would be cleaned before moving into weed free areas. In addition, the contractor together with the contracting officer's representative or project inspector (COR/PI) would examine proposed trap sites and holding corrals for noxious weeds prior to construction. If noxious weeds are found, the location of the facilities would be moved to another location. All trap sites, holding facilities, and camping areas on public lands would be monitored for weeds during the next several years. Despite short-term risks, over the long term, the reduction in wild horse numbers and the subsequent recovery of the native vegetation would result in fewer disturbed sites, thereby reducing the susceptibility of the range to an invasion or growth in areas occupied by non-native plant species.

Alternative B – Impacts would be the same as in the proposed action.

No Action Alternative – Under this alternative, the wild horse gather would not take place at this time. The likelihood of noxious weeds being spread by gather operations would not exist. However, continued overgrazing of the present plant communities could lead to an expansion of noxious weeds and invasive non-native species due deteriorating vegetative condition which makes the range more susceptible to weed invasion and to the spread of weed infestations.

4.8 Vegetative Resources

Affected Environment

The proposed action would impact vegetation temporarily with trampling and disturbance of vegetation occurring at gather sites and holding locations. Disturbance would occur to native vegetation in and around temporary gather corrals and holding facilities due to the use of vehicles and concentration of horses in the immediate area of such facilities. The disturbed area, however, would make up less than one acre. Gather corrals and holding facility locations are usually selected in areas easily accessible to livestock trailers and standard equipment, often utilizing roads, gravel pits or other previously disturbed sites, and which are accessible using existing roads. New roads are not created to construct capture corrals.

Environmental Impacts

Proposed Action-Temporary trap sites may have a short term impact on Vegetation Resources. As these Vegetative Resources are currently being used by the horses, the additional impact from a potential trap site would be minimal.

Achieving and maintaining the established AML, would benefit the vegetation by reducing the grazing pressure on the forage resources. Removal of excess wild horses would reduce the populations to levels that would be in balance with the available water sources and forage availability.

Maintaining AML within the Proposed Gather area would prevent overgrazing, damage by trampling or pawing, and would help promote improved rangeland health.

Alternative B – Impacts would be the same as described for the Proposed Action.

No Action Alternative- Vegetative Resources would continue to be utilized, increasing over time as the population of horses increase. Rangeland health standards would not be achieved as the population of wild horses increase over time on the range.

4.9 Soils/Watershed

Affected Environment

Project implementation would stay on existing roads, washes and horse trail areas, combined with the relative small areas used for gathering and holding operations.

Environmental Impacts

Proposed Action - Horses may be concentrated for a limited period of time in trap. Potential for soil compaction would occur but would be minimal and temporary are not expected to adversely impact soil or hydrologic function. Long term impacts may improve area due to less soil compaction from trailing.

Alternative B – Impacts would be the same as described for the Proposed Action.

No Action Alternative- Soils/ watersheds would continue to have horse use and as horse populations increase heavy trailing and trampling around water sources would occur. Watershed objectives would not be met due to increased horse populations over time.

4.10 Public Health and Safety

Affected Environment

In recent gathers, members of the public have increasingly traveled to the public lands to observe BLM's gather operations. Members of the public can inadvertently wander into areas that put them in the path of wild horses that are being herded or handled during the gather operations, creating the potential for injury to the wild horses or burros and to the BLM employees and contractors conducting the gather and/or handling the horses as well as to the public themselves. Because these horses are wild animals, there is always the potential for injury when individuals get too close or inadvertently get in the way of gather activities.

The helicopter work is done at various heights above the ground, from as little as 10-15 feet (when herding the animals the last short distance to the gather corral) to several hundred feet (when doing a recon of the area). While helicopters are highly maneuverable and the pilots are very skilled in their operation, unknown and unexpected obstacles in their path can impact their ability to react in time to avoid members of the public in their path. These same unknown and unexpected obstacles can impact the wild horses or burros being herded by the helicopter in that they may not be able to react and can be potentially harmed or caused to flee which can lead to injury and additional stress. When the helicopter is working close to the ground, the rotor wash of the helicopter is a safety concern by potentially causing loose vegetation, dirt, and other objects to fly through the air which can strike or land on anyone in close proximity as well as cause decreased vision.

During the herding process, wild horses or burros will try to flee if they perceive that something or someone suddenly blocks or crosses their path. Fleeing horses can go through wire fences, traverse unstable terrain, and go through areas that they normally don't travel in order to get away, all of which can lead them to injure people by striking or trampling them if they are in the animal's path.

Disturbances in and around the gather and holding corral have the potential to injure the government and contractor staff who are trying to sort, move and care for the horses and burros by causing them to be kicked, struck, and possibly trampled by the animals trying to flee. Such disturbances also have the potential for similar harm to the public themselves.

Public observation of the gather activities on public lands will be allowed and would be consistent with BLM IM No. 2010-164 and in compliance with visitation protocols for scheduled and nonscheduled visitation found in Appendix VII.

Environmental Impacts

Proposed Action

Public safety as well as that of the BLM and contractor staff is always a concern during the gather operations and would be addressed through Observation Protocols that have been used in recent gathers to ensure that the public remains at a safe distance and does not get in the way of gather operations. Appropriate BLM staffing (public affair specialists and law enforcement officers) will be present to assure compliance with visitation protocols at the site. These measures minimize the risks to the health and safety of the public, BLM staff and contractors, and to the wild horses themselves during the gather operations.

Alternative B – Impacts would be the same as described for the Proposed Action.

No Action Alternative
There would be no gather related safety concerns for BLM employees, contractors and the general public as no gather activities would occur.

5.0 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.

Cumulative impacts are impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The area of cumulative impact analysis is the Eagle, Mt. Elinore and Chokecherry HMAs (See map Appendix IV).

According to the 1994 BLM *Guidelines For Assessing and Documenting Cumulative Impacts*, the cumulative analysis should be focused on those issues and resource values identified during scoping that are of major importance. Accordingly, the issues of major importance that are analyzed are maintaining rangeland health and achieving and maintaining appropriate management levels.

Past, Present, and Reasonably Foreseeable Actions

The Past, Present, and Reasonably Foreseeable Future Actions applicable to the assessment area are identified as the following:

Project -- Name or Description	**Status (x)**		
	Past	**Present**	**Future**

Issuance of multiple use decisions and grazing permits for ranching operations through the allotment evaluation process and the reassessment of the associated allotments.	**x**		**x**
Livestock grazing	**x**	**x**	**x**
Wild Horse and Burro Gathers	**x**	**x**	**x**
Mineral Exploration / Geothermal Exploration/Abandoned mine land reclamation	**x**	**x**	**x**
Recreation	**x**	**x**	**x**
Spring development (fencing water sources)	**x**	**x**	**x**
Wildlife guzzler construction	**x**	**x**	**x**
Invasive weed inventory/treatments	**x**	**x**	**x**
Wild Horse and Burro issues, issuance of Multiple use decisions AML adjustments and planning	**x**	**x**	**x**

Any future proposed projects within the Eagle, Mt. Elinore and Chokecherry HMAs would be analyzed in an appropriate environmental document following site specific planning. Future project planning would also include public involvement.

The following analysis looks at the incremental impact of the proposed action and alternatives when added to the past, present and reasonably foreseeable future actions identified above.

Past Actions

In 1971 Congress passed the Wild Free-Roaming Horses and Burros Act which placed wild and free-roaming horses, that were not claimed for individual ownership, under the protection of the Secretaries of Interior and Agriculture. In 1976 the Federal Land Policy and Management Act (FLPMA) gave the Secretary the authority to use motorized equipment in the capture of wild free-roaming horses as well as continued authority to inventory the public lands. In 1978, the Public Range Improvement Act (PRIA) was passed which amended the WFRHBA to provide additional directives for BLM's management of wild free-roaming horses on public lands.

Past actions include establishment of wild horse Herd Management Areas, establishment of AML for wild horses, wild horse gathers, vegetation treatment, mineral extraction, oil and gas exploration, livestock grazing and recreational activities throughout the area. Some of these activities have increased infestations of invasive plants, noxious weeds, and pests and their associated treatments.

Eagle HMA

The Schell (1983) and Caliente (1982) MFPs (Ely District) designated the Deer Lodge Canyon and Wilson Creek (Fortification and Patterson-Eagle Herd Areas) HMAs for the long-term management of wild horses. These HMAs were later combined into the Eagle HMA in the Ely District Record of Decision (ROD) and Approved Resource Management Plan (RMP) in August 2008 due to the interchange between the two HMAs. The HMA is nearly identical in size and shape to the original Herd Areas representing where wild horses were located in 1971. The BLM also moved to long- range planning with the development of Resource Management Plans and Grazing Environmental Impact Statements. These EISs analyzed impacts of the Land Use Plan's

management direction for grazing and wild horses, as updated through Bureau policies, Rangeland Program direction, and Wild Horse Program direction. Forage was allocated within the allotments for livestock, wild horse and wildlife use, and range monitoring studies have been initiated to determine if allotment objectives were being achieved, or that progress toward the allotment objectives was being made.

Approximately 1252 wild horses have been removed from the Eagle HMA in the last 20 years; populations are thriving and have not been negatively impacted. An Appropriate Management Level determination for the Eagle HMA was re-affirmed through Ely *Proposed Resource Management Plan/Final Environmental Impact Statement* (RMP/EIS, 2007) released in November 2007.

Mt. Elinore and Chokecherry HMAs

In 1971, Herd Areas were identified as areas being occupied by wild horses. The Mt. Elinore and Chokecherry Herd Management Areas (HMAs) were established in the 1980s through the Pinyon Management Framework Plan objectives (PMFP Rangeland Program Summary Record of Decision dated 1983).

The Appropriate Management Levels (AMLs) set in the Pinyon MFP were established at the population levels that existed between 1971 and 1982. The AMLs within the Chokecherry and Mt. Elinore HMAs remain as set in the MFP. The wild horses from these HMAs travel back and forth across the Nevada/Utah border, mixing with wild horses from Nevada's Eagle HMA. Populations in the Utah HMAs have fluctuated from at or near the upper range of the AMLs (Mt. Elinore 15-25 head, and Chokecherry 30 head) to more than double the AMLs because of movement from Nevada's HMA.

Approximately 70 wild horses have been directly removed from the Mt. Elinore and Chokecherry HMAs in the last 20 years; populations are thriving and have not been negatively impacted. Some wild horses from the Chokecherry and Mt. Elinore HMAs crossed over the HMA boundary and were removed from the area during past gathers on the Eagle HMA (Wilson Creek and Deer Lodge Canyon HMAs).

Present Actions

Today the Eagle, Mt. Elinore and Chokecherry HMAs have a combined estimated population of 893 wild horses including 2010 foals. Resource damage is occurring in portions of the HMAs due to excess animals. Horses continue to move between the BLM Utah's Chokecherry and Mt. Elinore HMAs and BLM Nevada's Eagle HMA. Due to this movement, the Mt. Elinore and Chokecherry HMAs are being gathered with the Eagle HMA gather, which has the larger population of wild horses, to limit the potential for adverse impacts on the adjacent HMAs by concentrating wild horses on just one of the HMAs. Current BLM policy is to conduct removals targeting portions of the wild horse population based upon age, and allowing the correction of any sex ratio problems that may occur. Further, the BLM's policy is to conduct gathers in order to facilitate a four-year gather cycle. Program goals have expanded beyond establishing a "*thriving natural ecological balance*" (by setting appropriate management level (AML)) for individual herds, to include achieving and maintaining healthy, viable, vigorous, and stable

populations.

Current mandates prohibit the destruction of healthy animals that are removed or deemed to be excess. Only sick, lame, or dangerous animals can be euthanized, and destruction is no longer used as a population control method. A recent amendment to the Wild Free-Roaming Horses and Burro Act allows the sale of excess wild horses that are over 10 years in age or have been offered unsuccessfully for adoption three times. BLM is adding additional long-term holding grassland pastures in the Midwest to care for excess wild horses for which there is no adoption or sale demand.

Today public interest in the welfare and management of wild horses is currently as high as it has ever been. Many different values pertaining to wild horse management form current wild horse perceptions. Wild horses are viewed as nuisances, as well as living symbols of the pioneer spirit.

The BLM is continuing to modify grazing permits and conduct vegetation treatments to improve watershed health. Monitoring of vegetative resources, vegetative treatments, rangeland health, and watershed health continues. Currently within the Eagle, Mt. Elinore and Chokecherry HMAs sheep and cattle grazing occurs on a yearly basis.

The focus of wild horse management has also expanded to place more emphasis on achieving rangeland health as measured through the RAC Standards. Mojave-Southern Great Basin Resource Advisory Councils (RAC) developed standards and guidelines for rangeland health that have been the current basis for managing wild horse and livestock grazing within the Ely District. Adjustments in numbers, season of use, grazing season, and allowable use are based on evaluating progress toward reaching the standards.

Reasonably Foreseeable Future Actions

In the future, the BLM would manage wild horses within HMAs that have suitable habitat for a population range, while maintaining genetic diversity, age structure, and sex ratios. Current policy is to express all future wild horse AMLs as a range, to allow for regular population growth, as well as better management of populations rather than individual HMAs. The Ely BLM District completed the *Ely Proposed Resource Management Plan/Final Environmental Impact Statement* (RMP/EIS, 2007) released in November 2007 which analyzed AMLs expressed as a range and addressed wild horse management on a programmatic basis. Future wild horse management would focus on an integrated ecosystem approach with the basic unit of analysis being the watershed. The BLM would continue to conduct monitoring to assess progress toward meeting rangeland health standards. Wild horses would continue to be a component of the public lands, managed within a multiple use concept.

While there is no anticipation for amendments to the Wild and Free-Roaming Horses and Burros Act that would change the way wild horses could be managed on the public lands, the Act has been amended three times since 1971. Therefore, there is potential for amendment as a reasonably foreseeable future action.

As the BLM achieves AML on a Bureau wide basis gathers should become more predictable due to facility space. This should increase stability of gather schedules, which would result in the

Eagle, Mt. Elinore and Chokecherry HMAs being gathered at least every four years. Fertility control should also become more readily available as a management tool, with treatments that last between gather cycles, reducing the need to remove as many wild horses, and possibly extending the time between gathers. Wild horses will continue to move throughout the Eagle Chokecherry and Mt. Elinore HMA's.

The removal area contains a variety of resources and supports a variety of uses. Any alternative course of wild horse management has the opportunity to affect and be affected by other authorized activities ongoing in and adjacent to the area. Future activities which would be expected to contribute to the cumulative impacts of implementing the Proposed Action include: future wild horse gathers, continuing livestock grazing in the allotments within the area, development of range improvements, continued development of mineral extraction, oil and gas exploration, new or continuing infestations of invasive plants, noxious weeds, and pests and their associated treatments, and continued native wildlife populations and recreational activities historically associated with them. The significance of cumulative effects based on past, present, proposed, and reasonably foreseeable future actions are determined based on context and intensity.

Impacts

Past actions regarding the management of wild horses have resulted in the current wild horse population within the Eagle, Mt. Elinore and Chokecherry HMAs. Wild horse management has contributed to the present resource condition and wild horse herd structure within the gather area.

The combination of the past, present, and reasonably foreseeable future actions, along with the proposed action, should result in more stable wild horse populations, healthier rangelands, healthier wild horses, and fewer multiple-use conflicts within the Eagle, Mt. Elinore and Chokecherry HMAs.

6.0 Mitigation Measures and Suggested Monitoring

Proven mitigation and monitoring are incorporated into the proposed action through standard operating procedures, which have been developed over time. These SOPs (Appendix I, II, and III) represent the "best methods" for reducing impacts associated with gathering, handling, transporting and collecting herd data. Samples to establish a genetic baseline for the Eagle, Mt. Elinore and Chokecherry HMAs wild horses will be collected; additional samples will be collected during future gathers (in 10-15 years) to determine trend. Should monitoring indicate genetic diversity is not being adequately maintained, 2-10 mares and/or studs from HMAs in similar environments would be added every generation (every 8-10 years) to avoid inbreeding depression/maintain acceptable genetic diversity. Ongoing resource monitoring, including climate (weather), and forage utilization, population inventory, and distribution data will continue to be collected.

7.0 Consultation and Coordination

Public hearings are held annually on a state-wide basis regarding the use of motorized vehicles, including helicopters and fixed-wing aircraft, in the management of 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 the motorized vehicles. The Elko District Office held the state-wide meeting on July 1, 2010; thirteen public participants attended and their comments were entered into the record for this hearing. Most were in support of the use of helicopters and the gathering of excess wild horses. Standard Operating Procedures were reviewed in response to these concerns and no changes to the SOPs were indicated based on this review.

The Utah State meeting was held in June 9, 2010 in Salt Lake City, Utah. At that meeting no comments and concerns were expressed regarding the use of motorized vehicles in the management of wild horses and burros. Standard Operating Procedures were reviewed in and no changes to the SOPs were indicated based on this review.

The Ely and Cedar City Districts BLM have coordinated with Nevada Department of Wildlife (NDOW) and the Utah Division of Wildlife Resources during the yearly coordination meeting on these gathers.

On December 8, 2009 the Ely District sent a Notice of Proposed Action (NOPA) to the Wilderness and Wilderness Study Area interested public mailing list notifying them of the action taking place in Wilderness.

A preliminary environmental assessment was made available to interested individuals, agencies and groups and posted on the Ely District website www.nv.blm.gov/ely for a 30 day public review and comment period on August 5, 2010 and closing on September 5, 2010. Written comments were received from seven individuals and e-mail comments were received from 28 individuals. Many of these comments contained overlapping issues/concerns which were consolidated into 25 distinct topics. Refer to EA, Appendix VI for a detailed summary of the comments received and how BLM used these comments in preparing the final environmental assessment. The final Environmental Assessment / Gather Plan for Eagle, Chokecherry, and Mt. Elinore Herd Management Areas is available on the BLM's web site at www.nv.blm.gov/ely, or contact the Ely BLM District Office.

Internal Review

Name	Title	Responsible for the Following Section(s) of this Document
Ben Noyes	**Wild Horse Specialist**	**Project Lead/ Wild Horse**
Nancy Williams	**Wildlife Biologist**	**Wildlife, Migratory Birds, Special Status Species**
Bonnie Million	**Noxious & Invasive**	**Non-native Invasive Species Including Noxious**

Mindy Seal	**Weeds Specialist**	**Weeds**
Zach Peterson	**Forester**	**NEPA, Air Quality, Environmental Justice, Forestry**
Melanie Peterson	**Environmental Protection Specialist**	**Human Health and Safety, Hazardous Wastes**
Dave Jacobson	**Wilderness Planner**	**Wilderness**
Mark D'Aversa	**Hydrologist**	**Soil, Water, Wetlands and Riparian/Flood Plans**
Shirley Johnson **Chelsy Simerson**	**Rangeland Management Specialist**	**Livestock Grazing**
Shawn Gibson	**Archaeologist**	**Cultural Resources**
Elvis Wall	**Native American Coordinator**	**Native American Religious Concerns**
Chad Hunter	**CCFO-Rangeland Management/Wild Horse Specialist**	**CCFO-Vegetation, Livestock Grazing, Wild Horses**
Sheri Whitfield	**Wildlife Biologist**	**CCFO - Wildlife, Migratory Birds, Special Status Species**

8.0 REFERENCES, GLOSSARY AND ACRONYMS

8.1 References Cited

Coates-Markle, L. 2000. Summary Recommendations, BLM Wild Horse and Burro Population Viability Forum April 1999, Ft. Collins, CO. Resource Notes 35:4pp.

Floyd, Ted et al. 2007. Atlas of the Breeding Birds of Nevada. University of Nevada Press, Reno Nevada.

Ganskopp, D.C. 1983. Habitat use and Spatial Interactions of Cattle, Wild Horses, Mule Deer, and California Bighorn Sheep in the Owyhee Breaks of Southeast Oregon. PhD Dissertation, Oregon State University.

Ganskopp, D.C. and M. Vavra. 1986. Habitat Use by Feral Horses in the Northern Sagebrush Steppe. Journal of Range Mangement 39(3):207-211.

Ganskopp, D.C. and M. Vavra. 1987. Slope Use by cattle, feral horses, deer, and bighorn sheep. Northwest Science, 61(2):74-80

Great Basin Bird Observatory. 2003. Nevada Bird Count. A habitat-based monitoring program for breeding birds of Nevada. Instruction package and protocol for point count surveys.

Interior Board of Land Appeals 88-591, 88-638, 88-648, 88-679 at 127.

109 Interior Board of Land Appeals 119 API 1989.

118 Interior Board of Land Appeals 75.

Kirkpatrick, J.F., R. Naugle, I.K.M. Lui, J.W. Turner JR., M. Bernocco. 1995. Effects of Seven Consecutive years of PZP Contraception on Ovarian Function in Feral Mares, Biology of

Reproduction Monograph Series 1: Equine Reproduction VI: 411-418.

McInnis, M.A. 1984. Ecological Relationships among Feral Horses, Cattle, and Pronghorn in Southeastern Oregon. PhD Dissertation. Oregon State University.

McInnis, M.A. and M. Vavra. 1987 Dietary relationships among feral horses, cattle, and Prognhorn in southeastern Oregon. Journal of Range Mgt 40(1):60-66.

Neel, L.A. (Editor). 1999. Nevada Partners in Flight Bird Conservation Plan. Nevada Department of Wildlife. March 2007. www.ndow.org

Nevada Natural Heritage Program. March 2008. www.heritage.nv.gov

NOAA. www.cpc.ncep.noaa.gov

Platts, W.S., and J.n. Rinne. 1985. Riparian and stream enhancement management and research in the Rocky Mountains. North American Journal of Fisheries Management 5:115-125.

Singer F.J., Aeignefuss L. 2000. Genetic Effective Population Size in the Pryor Mountain Wild Horse Herd: Implications for conserving genetics and viability goals in wild horses. U.S. Geologic Survey, Midcontinent Ecological Science Center, Ft. Collins CO. Resource Notes 29:2 pp.

Smith, M.A. 1986a. Impacts of Feral Horses Grazing on Rangelands: An Overview. Equine Veterinary Science, 6(5):236-238.

Smith, M.A. 1986b. Potential Competitive Interactions Between Feral Horses and Other Grazing Animals. Equine Veterinary Science, 6(5):238-239.

Smith, M.A and J.w. Waggoner, Jr., et al. 1982. Vegetation Utilization, Diets, and Estimated Dietary Quality of Horses and Cattle Grazing in the Red Desert of Westcentral Wyoming. BLM Contract No. AA851-CTO-31.

Society for Range Mangement, 1989. A glossary of Terms Used in Range Mangement (Third ed.). Society for Range Mangement, Denver, Colo.

Turner Jr., J.W., I.K.M. Lui, Rutberg, A., J.W., Kirkpatrick. 1997. Immunocontraception Limits Foal Production in Free Roaming Feral Horses in Nevada, J. Wildl. Manage. 61 (3):873-880.

Vavra, M. and F. Sneva. 1978. Seasonal Diets of five ungulates grazing the cold desert biome. Proceedings of the First International Rangeland Congress. Society for Range Mgt. Denver, CO.

Zoo Montana. 20002 Wildlife Fertility Control: Fact and Fancy. Zoo Montana Science and Conservation Biology Program, Billings, Mt.

USDOI, BLM. 2008. National Environmental Policy Act. Handbook-1790-1.

USDOI. 2007. Ely Proposed Resource Management Plan/ Final Environmental Impact Statement. U.S. Department of the Interior, Bureau of Land Management. BLM/EL/PL-

07/09+1793. DOI No. FES07-40. November 2007

USDOI. 2008. Ely District Record of Decision and Approved Resource Management Plan. U.S. Department of the Interior, Bureau of Land Management. BLM/NV/EL/PL-GI08/25+1793.

USDOI, Bureau of Land Management. 1994. Guidelines for assessing and documenting cumulative impacts. WO-IB-94-310.

8.2 Acronyms

BLM-Bureau of Land Management
CFR-Code of Federal Regulations
DR-Decision Record
EA-Environmental Assessment
EIS-Environmental Impact Statement
FLPMA-Federal Land Policy and Management Act
FONSI-Finding of No Significant Impact
HA – Herd Area
HMA – Herd Management Area
ID-Interdisciplinary
IM-Instructional Memorandum
NEPA-National Environmental Policy Act
RFS-Reasonably Foreseeable Future Action
RMP-Resource Management Plan

APPENDIX I:
STANDARD OPERATING PROCEDURES

Gathers would be conducted by utilizing contractors from the Wild Horse Gathers-Western States Contract, or BLM personnel. The following procedures for gathering and handling wild horses 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 Aviation Management Handbook* (January 2009).

Prior to any gathering operation, the BLM will provide for a pre-gather 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 a large number of animals may need to be euthanized or gather operations could be facilitated by a veterinarian, these services would be arranged before the gather would proceed. The contractor will be apprised of all conditions and will be given instructions regarding the gather 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 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 whenever possible.

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

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

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

A. Gather 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 gathered. All gather 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 who will consider terrain, physical barriers, access limitations, weather, extreme temperature (high and low), condition of the animals, urgency of the operation (animals facing drought, starvation, fire rehabilitation, etc.) and other factors. In consultation with the contractor the distance the animals travel will account for the different factors listed above and concerns with each HMA.

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 larger than 2”x4”.

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 or sliding 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, estrays or other animals the COR determines need to be housed in a separate pen 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 gather 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. The contractor will supply certified weed free hay if required by State, County, and Federal regulation.

   An animal that is held at a temporary holding facility 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 gathered 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 animals must be euthanized and provide for the 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 their final destination from temporary holding facilities as quickly as possible after gather unless prior approval is granted by the COR 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. 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. 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 in any 24 hour period. Animals that are to be released back into the gather area may need to be transported back to the original trap site. This determination will be at the discretion of the COR/PI or Field Office horse specialist.

B. Gather Methods That May Be Used in the Performance of a Gather

1. Gather attempts may be accomplished by utilizing bait (feed, water, mineral licks) to lure animals into a temporary trap. If this gather method is selected, the following applies:

    a. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc., that may be injurious to animals.

    b. All trigger and/or trip gate devices must be approved by the COR/PI prior to gather of animals.

    c. Traps shall be checked a minimum of once every 10 hours.

2. Gather 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 half hour.

    b. The contractor shall assure that foals shall not be left behind, and orphaned.

3. Gather 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 gathered 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, if requested, 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 gathered 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 at least two (2) partition gates providing at least three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing at least 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 as much as possible during transport.

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 gathered animals. The COR/PI shall provide for any brand and/or inspection services required for the gathered 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 gather of wild horses 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

No personnel working at gather sites may excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage or otherwise alter or deface any archaeological resource located on public lands or Indian lands.

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 when possible. 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 considerations will be to protect the health, safety and welfare of the animals being gathered and the personnel involved. 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

<u>Contracting Officer's Representative/Project Inspector</u>

Ruth Thompson, Wild Horse and Burro Specialist, Ely District
Ben Noyes, Wild Horse and Burro Specialist, Ely District
Chad Hunter, Wild Horse and Burro Specialist, Cedar City Field Office
Alan Shepherd, NV WH&B Program Lead

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 Schell Supervisory Natural Resource Specialist and the Schell Field Managers will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, and BLM Holding Facility 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 Field Manager and/or the Supervisory Natural Resource Specialist and Field Office Public Affairs. These individuals will be the primary contact and will coordinate with the COR/PI on any inquiries.

The COR will coordinate with the contractor and the BLM Corrals to ensure animals are being transported from the gather 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 gather of the animals. The specifications will be vigorously enforced.

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

APPENDIX II
Standard Operating Procedures for Fertility Control Treatment

22-month time-release pelleted vaccine:

1. PZP vaccine would be administered only by trained BLM personnel or collaborating research partners.
2. Mares that have never been treated would receive 0.5 cc of PZP vaccine emulsified with 0.5 cc of Freund's Modified Adjuvant (FMA). Mares identified for re-treatment receive 0.5 cc of the PZP vaccine emulsified with 0.5 cc of Freund's Incomplete Adjuvant (FIA).
3. 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 delivered using a modified syringe and jabstick to inject the pellets into the gluteal muscles of the mares being returned to the range. The pellets are designed to release PZP over time similar to a time-release cold capsule.
4. Delivery of the vaccine would be by intramuscular injection into the gluteal muscles while the mare is restrained in a working chute. The primer would consist of 0.5 cc of liquid PZP emulsified with 0.5 cc of Freunds Modified Adjuvant (FMA). The pellets would be loaded into the jabstick for the second injection. With each injection, the liquid or pellets would be injected into the left hind quarters of the mare, above the imaginary line that connects the point of the hip (hook bone) and the point of the buttocks (pin bone).
5. In the future, the vaccine may be administered remotely using an approved long range darting protocol and delivery system if or when that technology is developed.
6. All treated mares will be freeze-marked on the hip or neck HMA managers to positively identify the animals during the research project and at the time of removal during subsequent gathers.

Monitoring and Tracking of Treatments:

1. At a minimum, estimation of population growth rates using helicopter or fixed-wing surveys will be conducted before any subsequent gather. During these surveys it is not necessary to identify which foals were born to which mares; only an estimate of population growth is needed (i.e. # of foals to # of adults).
2. Population growth rates of herds selected for intensive monitoring will be estimated every year post-treatment using helicopter or fixed-wing surveys. During these surveys it is not necessary to identify which foals were born to which mares, only an estimate of population growth is needed (i.e. # of foals to # of adults). If, during routine HMA field monitoring (on-the-ground), data describing mare to foal ratios can be collected, these data should also be shared with the NPO for possible analysis by the USGS.
3. A PZP Application Data sheet will be used by field applicators to record all pertinent data relating to identification of the mare (including photographs if mares are not freeze-marked) and date of treatment. Each applicator will submit a PZP Application Report and accompanying narrative and data sheets will be forwarded to the NPO (Reno, Nevada). A copy of the form and data sheets and any photos taken will be maintained at the field office.
4. 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(s) applied by HMA and date.

Appendix III

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Eagle HMA Gather
Lincoln County, Nevada

On July 29, 2009 a Noxious & Invasive Weed Risk Assessment was completed for the Eagle Herd Management Area (HMA) wild horse gather. The proposed action is to remove approximately 506 excess wild horses from the Eagle HMA beginning in February 2010 in order to achieve and maintain the appropriate management level (AML) and prevent further range deterioration resulting from the current overpopulation of wild horses. The Eagle HMA was last gathered in February 2007 where 646 horses were removed. The Eagle HMA is located in northeastern Lincoln County approximately 50 miles south east of Ely, Nevada, and 20 miles northeast of Caliente Nevada. The HMA encompasses approximately 670,000 acres. The area is within the Great Basin physiographic region, characterized by a high, rolling plateau underlain by basalt flows covered with a thin loess and alluvial mantle.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. Currently, the following weed species are found within the Eagle HMA:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea diffusa	Diffuse knapweed
Centaurea stoebe	Spotted knapweed
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress
Linaria dalmatica	Dalmatian toadflax
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar
Tribulus terrestris	Puncturevine

The following noxious and non-native, invasive species are found along roads and drainages leading to the area:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea diffusa	Diffuse knapweed
Centaurea stoebe	Spotted knapweed
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Linaria dalmatica	Dalmatian toadflax
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar
Tribulus terrestris	Puncturevine

The Eagle HMA was last inventoried for noxious weeds in 2008. It should be noted that the Eagle HMA occurs on the Ely District boundary with the Cedar City Field Office. Weed inventory data for this field office is not available. While not officially documented the following non-native invasive weeds probably occur in or around the project area:

Bromus tectorum	Cheatgrass	*Halogeton glomeratus*	Halogeton
Ceratocephala testiculata	Bur buttercup	*Marrubium vulgare*	Horehound
Convolvulus arvensis	Field bindweed	*Salsola kali*	Russian thistle

Elaeagnus angustifolia	Russian olive	*Sysimbrium altissimum*	Tumble mustard
Erodium circutarium	Filaree	*Verbascum thapsus*	Common mullein

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

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

For this project, the factor rates as Moderate (5) at the present time. Given the concentrated use around gather sites and the use of non-certified forage it is likely that project activities will results in new infestations, specifically at the gather sites.

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

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

This project rates as High (8) at the present time. Aside from along major roads and drainages, such as Meadow Valley Wash and Clover Creek, these HAs are relatively weed free. If new weed infestations spread to the area there would be adverse effects to the surrounding native vegetation. Any increase in cheatgrass or red brome could alter the fire regime in the area.

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

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

For this project, the Risk Rating is Moderate (40). This indicates that the project can proceed as planned as long as

the following measures are followed:

- Gather sites will be chosen in previously disturbed areas which are free from noxious weed infestations, to the greatest extent possible.
- Where appropriate, vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. Vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the Ely District Office Weed Coordinator or designated contact person.
- Prior to entry of vehicles and equipment to a planned disturbance area, a weed scientist or qualified biologist will identify and flag areas of concern. The flagging will alert personnel or participants to avoid areas of concern.
- Keep removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)
- Monitoring of the gather sites will be conducted for at least three years and will include weed detection. Any newly established populations of noxious/invasive weeds discovered will be communicated to the Ely District Noxious and Invasive Weeds Coordinator for treatment.

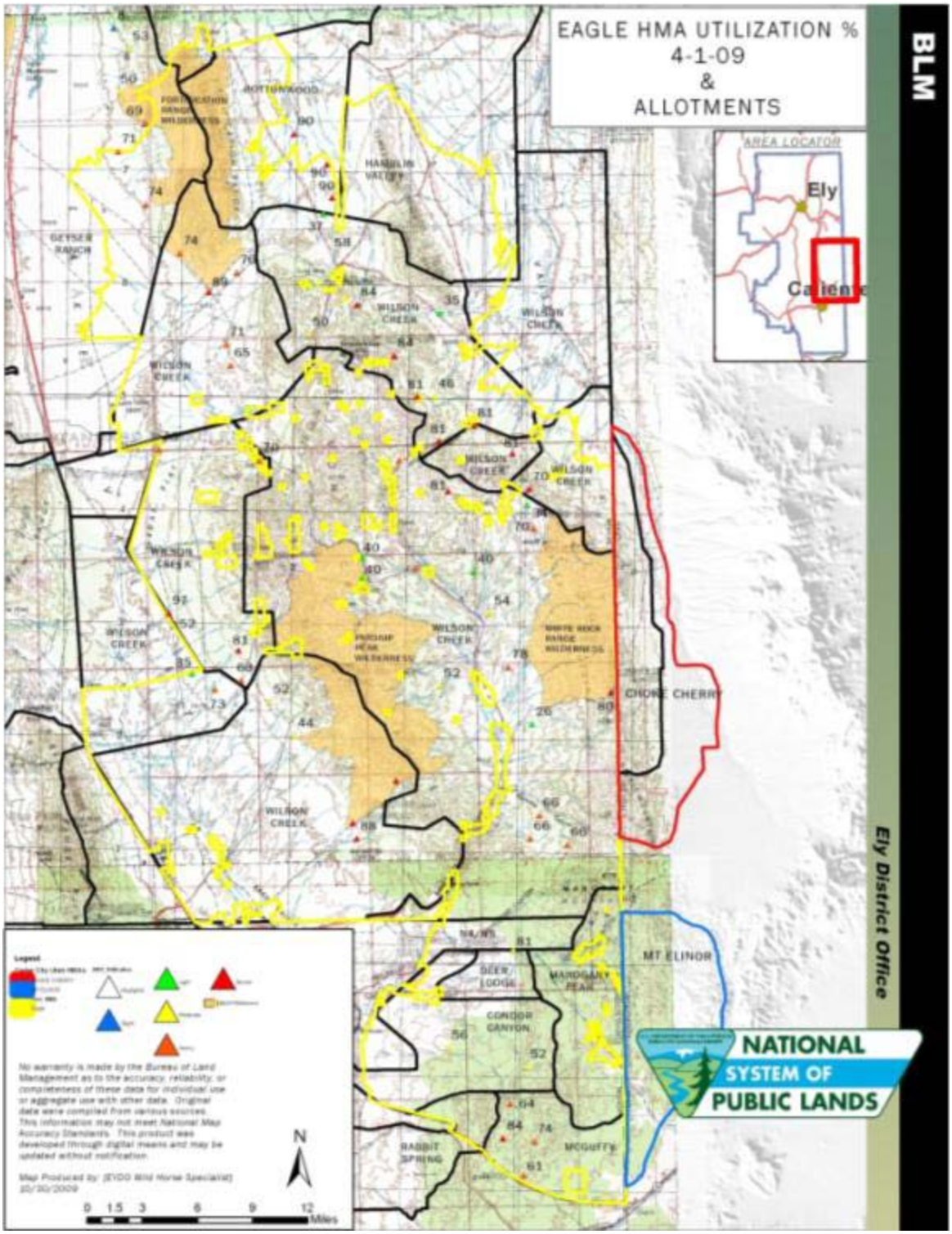
The Ely District normally requires that all hay, straw, and hay/straw products use in project be free of plant species listed on the Nevada noxious weed list. However, this gather is being implemented through the National Wild Horse & Burro Gather Contract and there are no stipulations in this national contract that require the contractor to provide certified weed-free forage.

Reviewed by: /s/Bonnie M. Million 07/29/2009

Bonnie M. Million Date

Ely District Noxious & Invasive Weeds Coordinator

Appendix IV
Utilization and Allotment Map



Appendix V
Eagle, Chokecherry, and Mt. Elinore Herd Management Areas
2010 Population Modeling

To complete the population modeling for the Eagle, Chokecherry, Mt. Elinore Herd Management Areas, version 1.40 of the WinEquus program, created April 2, 2002, was utilized.

Objectives of Population Modeling
Review of the data output for each of the simulations provided many use full comparisons of the possible outcomes for each alternative. Some of the questions that need to be answered through the modeling include:

- Do any of the Alternatives "crash" the population?
- What effect does fertility control have on population growth rate?
- What effects do the different alternatives have on the average population size?
- What effects do the different alternatives have on the genetic health of the herd?

Population Data, Criteria, and Parameters utilized for Population Modeling
All simulations used the survival probabilities, foaling rates, and sex ratio at birth that was supplied with the WinnEquus population for the Garfield HMA.

Sex ratio at Birth:
43% Females
57% Males

The following percent effectiveness of fertility control was utilized in the population modeling for Alternative I:

Year 1: 94%, Year 2: 82%, Year 3: 68%

The following table displays the contraception parameters utilized in the population model for Alternative I:

Contraception Criteria
(Alternative I)

Age	Percentages for Fertility Treatment
1	0%
2	100%
3	100%
4	100%
5	100%
6	100%
7	100%
8	100%

9	100%
10-14	100%
15-19	100%
20+	100%

Population Modeling Criteria

The following summarizes the population modeling criteria that are common to the Proposed Action and all alternatives:

- Starting year: 2010
- Initial Gather Year: 2010
- Gather interval: regular interval of three years
- Gather for fertility treatment regardless of population size: No
- Continue to gather after reduction to treat females: Yes
- Sex ratio at birth: 57% males
- Percent of the population that can be gathered: 80%
- Minimum age for long term holding facility horses: Not Applicable
- Foals are not included in the AML
- Simulations were run for 10 years with 100 trials each

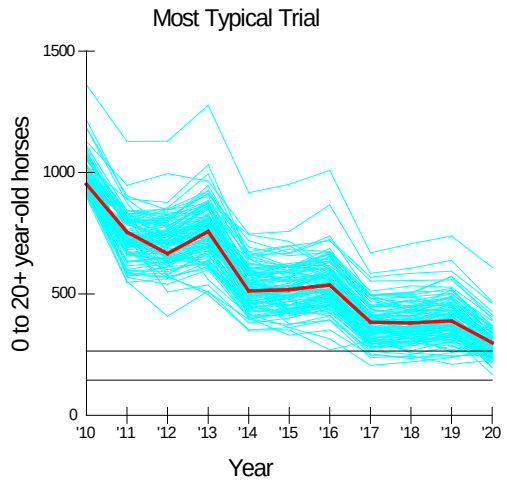
The following table displays the population modeling parameters utilized in the model:

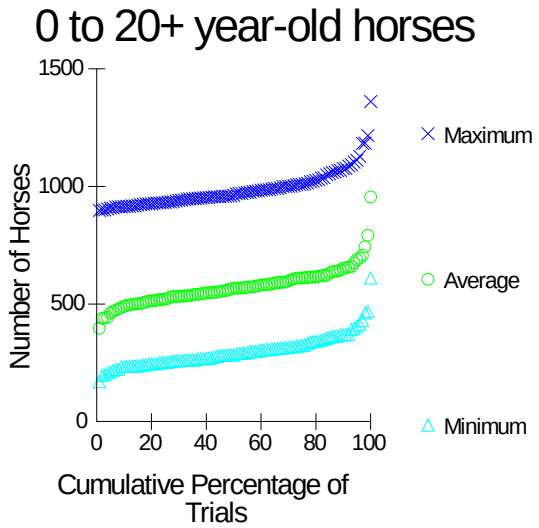
Population Modeling Parameters

Modeling Parameter	Alternative A Proposed Action (Remove to Low point of AML, Adjust sex ratio 60-40 & Fertility Control)	Alternative B Remove Excess Animals (Low Point AML) Without Fertility Control)	Alternative C No Action (No Removal & No Fertility Control)
Management by removal, 60:40 adjustment in sex ratio, and fertility control	Yes	No	N/A
Management by removal only	No	Yes	N/A
Threshold Population Size Following Gathers	145	255	N/A
Target Population Size Following gather	145	145	N/A
Gather for fertility control regardless of population size	No	No	N/A
Gather continue after removals to treat additional females	Yes	No	N/A
Effectiveness of Fertility Control: Year 1	94%	N/A	N/A
Effectiveness of Fertility Control: Year 2	82%	N/A	N/A
Effectiveness of Fertility Control: Year 3	68%	N/A	N/A

Results-Alternative A: Proposed Action – Selective Removal of Excess Animals (Low Point AML); Apply Two-Year Fertility Control, & 60% Male Sex Ratio

Population Size





Population Sizes in 11 Years*

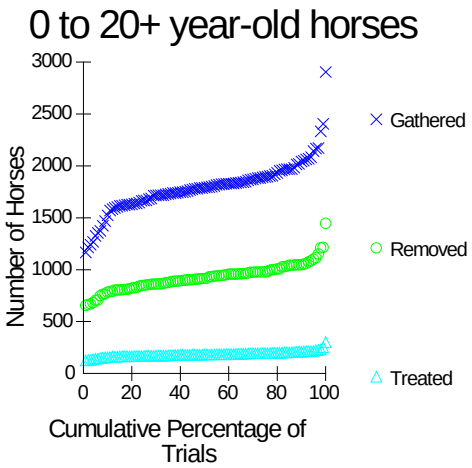
	Minimum	Average	Maximum
Lowest Trial	169	396	898
10th Percentile	234	491	914
25th Percentile	252	521	932
Median Trial	286	567	965
75th Percentile	324	610	1010
90th Percentile	370	653	1076
Highest Trial	610	954	1361

* 0 to 20+ year-old horses

In 11 years and 100 trials, the lowest number of 0 to 20+ year-old horses ever obtained was 169 and the highest was 1361. In half the trials, the minimum population size in 11 years was less than 286 and the maximum was less than 965. The average population size across 11 years ranged from 396 to 954.

Gather

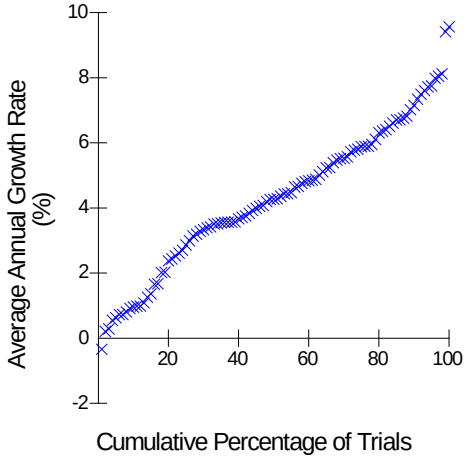
Totals in 11 Years*



	Gathered	Removed	Treated
Lowest Trial	1166	655	126
10th Percentile	1547	786	158
25th Percentile	1666	850	170
Median Trial	1792	916	182
75th Percentile	1894	980	196
90th Percentile	2046	1050	212
Highest Trial	2904	1445	303

* 0 to 20+ year-old horses

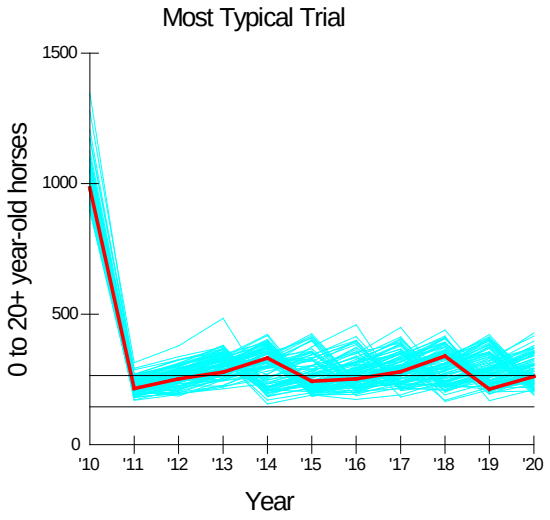
Growth Rate

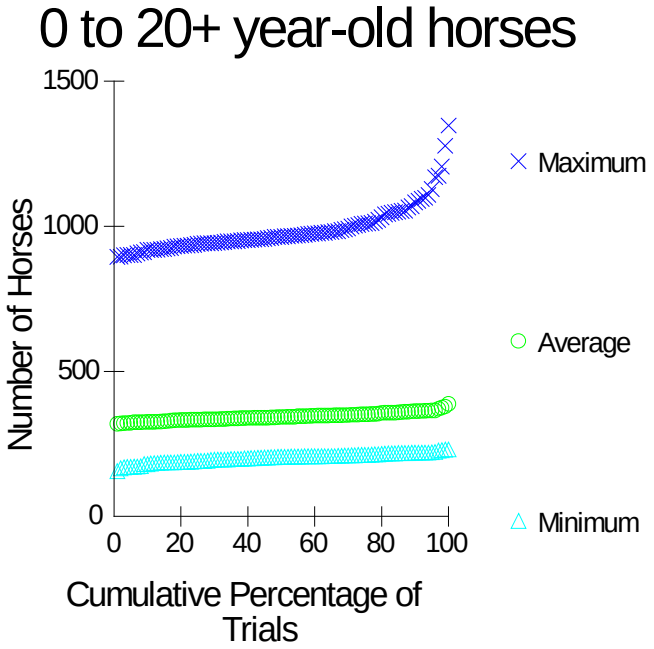


Average Growth Rate in 10 Years	
Lowest Trial	-0.3
10th Percentile	1.0
25th Percentile	2.9
Median Trial	4.3
75th Percentile	5.9
90th Percentile	7.2
Highest Trial	9.6

Results- Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Population Size



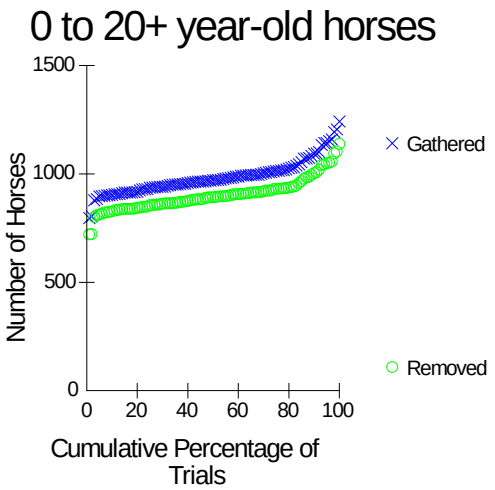


	Population Sizes in 11 Years*		
	Minimum	Average	Maximum
Lowest Trial	156	319	894
10th Percentile	181	325	918
25th Percentile	191	333	940
Median Trial	205	342	964
75th Percentile	212	352	1010
90th Percentile	220	362	1085
Highest Trial	231	388	1347

* 0 to 20+ year-old horses

In 11 years and 100 trials, the lowest number of 0 to 20+ year-old horses ever obtained was 156 and the highest was 1347. In half the trials, the minimum population size in 11 years was less than 205 and the maximum was less than 964. The average population size across 11 years ranged from 319 to 388.

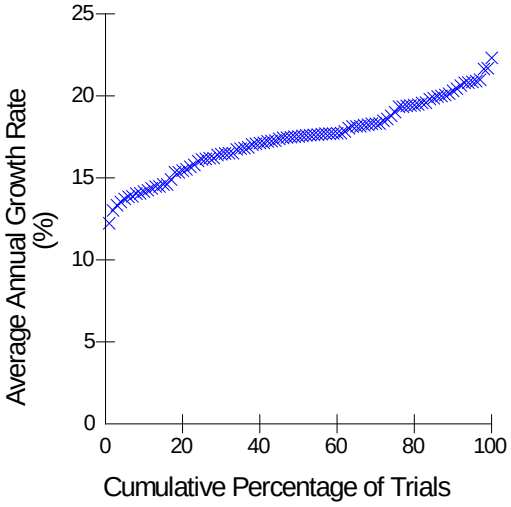
Gather



	Totals in 11 Years*	
	Gathered	Removed
Lowest Trial	796	721
10th Percentile	904	828
25th Percentile	936	855
Median Trial	971	892
75th Percentile	1014	931
90th Percentile	1094	1005
Highest Trial	1242	1138

* 0 to 20+ year-old horses

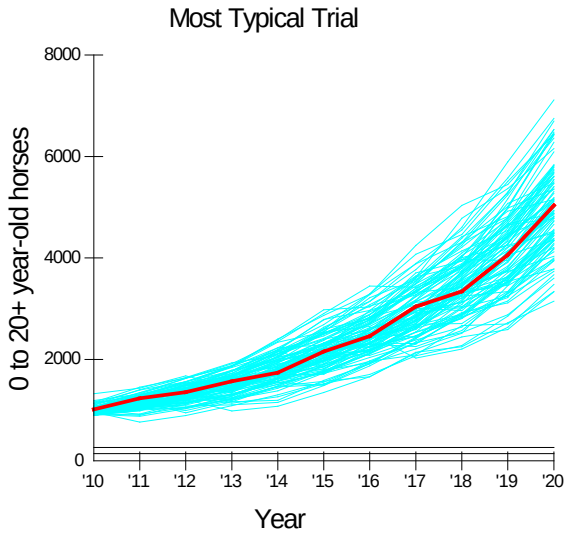
Growth Rate

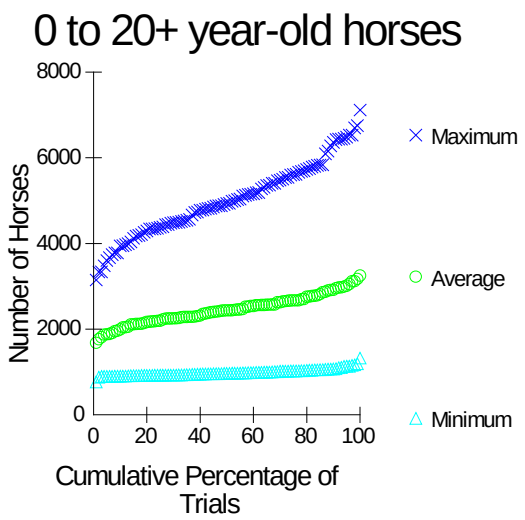


Average Growth Rate in 10 Years	
Lowest Trial	12.2
10th Percentile	14.2
25th Percentile	16.1
Median Trial	17.5
75th Percentile	19.2
90th Percentile	20.4
Highest Trial	22.3

Results- No Action Alternative – Continuation of Existing Management

Population Size





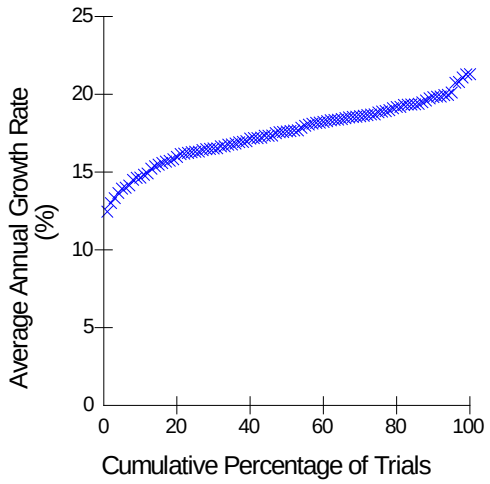
Population Sizes in 11 Years*

	Minimum	Average	Maximum
Lowest Trial	768	1679	3147
10th Percentile	904	2016	3948
25th Percentile	926	2210	4382
Median Trial	967	2437	4937
75th Percentile	1024	2670	5610
90th Percentile	1073	2935	6392
Highest Trial	1324	3251	7115

* 0 to 20+ year-old horses

In 11 years and 100 trials, the lowest number of 0 to 20+ year-old horses ever obtained was 768 and the highest was 7115. In half the trials, the minimum population size in 11 years was less than 967 and the maximum was less than 4937. The average population size across 11 years ranged from 1679 to 3251.

Growth Rate



Average Growth Rate in 10 Years	
Lowest Trial	12.5
10th Percentile	14.7
25th Percentile	16.3
Median Trial	17.6
75th Percentile	18.9
90th Percentile	19.8
Highest Trial	21.3

Appendix VI

No.	Commenter	Comment	BLM Response
1.	Individuals	We support the Proposed wild horse gather.	Comment noted
2.	Individual	You had incomplete and unavailable information in the areas listed below: RMP Section 4.1.4.1 Vegetation Treatment and Watershed Management. RMP 4.1.4.2 Vegetation Communities: RMP Section 4.1.4.3 State and Transition and Land fire Biophysical Setting Models: RMP Section 4.1.4.4 Bighorn Sheep and Domestic Sheep and Goat interactions: RMP Section 4.1.4.5 Special Status Species: RMP Section 4.4.6 Paleontological Sites:	Comments are outside the scope of the analysis. The gather EA provides the site specific analysis for the proposed action and alternatives.
3.	Individual	Horses have family groups that stabilize in which the individuals have roles. These family groups are tore up by round ups. The resulting disorder is very hard on horses.	See Section 4.1 of the Environmental Assessment
4.	Individual	Human selection of animals to return is necessarily inferior to natural selection in protecting and promoting the long-term strength and survival of horse herds.	Outside the scope of the analysis. The WFRHBA requires removal of excess wild horses and management for a thriving natural ecological balance.
5.	Individual	Small horse populations create genetic bottlenecks and interfere with groups spreading, contacting each other and exchanging members.	These horses move freely and routinely between the Eagle Chokecherry and Mt. Elinore HMA boundaries, thereby ensuring a broader gene pool.
6.	Individual	Penning animals periodically subjects them to disease and parasite pressures that wild animals should not be subject to.	Animals infected with internal parasites and diseases would still be subject to disease and parasites in the wild or in the pen many times in areas where heavy concentrates are around water holes contact is made between animals and parasites or diseases are spread.
7.	Safari Club International and Safari Club	Full support on the Eagle Chokecherry and Mt.	Comments Noted

	International Foundation	Elinore gather EA	
8.	Individual	Please reduce the Wild horse and burro numbers in this area to below the management levels established so that the resource will be protected from overgrazing. It is contrary to multiple-use management of our public lands to allow these feral animals to continue to overgraze our public rangelands.	See Section 2.2 The Proposed Action in the EA.
9.	Individuals	The EA must include objective evaluation of the above mentioned items, as well as a detailed economic analysis of the long- and short-term costs associated with the capture, removal and warehousing of these horses, and a full consideration of the impacts of capture, removal and warehousing on the horses taken from the range	The costs of complying with the WFRHBA is outside the scope of the analysis. Impacts of the gather activities on wild horses is found in the EA at Section 4.1.
10.	Northern Nevada Chapter Safari Club International	The Chapter fully supports the proposed gather within the Silver King Herd Management Area	Comment Noted
11.	Marybeth Devlin	BLM's use of helicopters to chase the horses is inhumane and outdated. The horses are terrified by the noise and commotion involved. They stampede, injure themselves, and become separated from their babies and bandmates. Many die from stress, even more are euthanized. BLM is stuck in the 70's, which is when they started using this cruel but "practical" approach. Per standard operating procedures, a veterinarian may be present if large numbers of horses are deemed in need of euthanasia. But otherwise contractor staff may be required to put down horses and dispose of their	See Section 4.1 of this E.A.

		carcasses.	
12.	Marybeth Devlin Individual	BLM has announced restrictions on public access, including road closures, to prevent documentation of the brutality that occurs during these round ups.	Some restrictions on public access or proximity to gather operations may be necessary to ensure human and animal safety Please see section 4.10 of the E.A. and Appendix VII.
13.	Marybeth Devlin	It is difficult to accurately count animals by means of a flyover. This is especially true when there are so many "Nevada Browns" that it is difficult to tell horses apart and to know for sure that they haven't been counted already. And due to horses' roaming nature, if the inventory is taken over a number of days or weeks, many instances of counting the same animals is probable.	Based on a direct count of wild horses, documenting numbers and using a GPS to mark the the location while flying a grid system the factors for Error of double counting wild horses is minimal. Past inventories and reproduction rates in the Eagle Chokecherry and Mt. Elinore HMA's show horses are routinely undercounted not double counted.
14.	Marybeth Devlin	The EA does not disclose the identity of the aircraft contractor used for the census and the one to be used for the gather. If the same contractor is used for both the census and the roundup, a concern is raised regarding an apparent conflict of interest. Such a contractor would be motivated to find a population surplus so that there would then be a need for a roundup, thereby increasing revenues by providing two different billable services.	A national Aviation contract is used for flight inventory of wild horses. This contract is a different contract than the wild horse gather contract. When counting wild horses it is the responsibility of the wild horse specialist's and other members of the flight to count the horses using the chosen technique. It is also the specialist's job to maintain a proper flight pattern to comprehensively cover the gather area.
15.	Marybeth Devlin	A herd consisting of only 145 animals cannot maintain a genetically viable population. Worse yet, Eagle HMA will be left with only 100 Wild Horses, Chokecherry with just 30, and Mt. Elinore, a mere 15. Such small units cannot maintain genetic viability. BLM knows or should know that there must be at least 150-200 individuals to prevent loss of diversity.	The lack of physical boundaries between the HMAs allows regular interchange and movement of horses. Although it is a priority to maintain good genetic health neither the WFRHBA nor the Code of Federal Regulations requires the BLM to maintain genetically "viable" populations, especially where the habitat conditions are a limiting factor to wild horse population size.

16.	Marybeth Devlin	BLM performed simulation trials using a population modeling software program. However, this tool is only as good as the data plugged into it, and there is a troubling lack of data for the herd in question. To run the program, the following data must be supplied: Initial age/sex distribution -- a "snapshot" cannot be used -- must track known individuals over time. Annual survival probabilities for each age/sex class. This requirement is fundamental. Foaling rates.	The WinEquus population model is a tool to assist wild horse and burro specialists evaluate various management plans and display the possible outcomes for management of wild horses. That was the purpose for the use of the model to display the relative outcomes for the various alternatives for the HMAs.
17.	Marybeth Devlin	The EA does not disclose how it keeps track of livestock. Aerial survey? GPS collars? Taking permit-holders word for it? Thus, the livestock count could be understated.	Comments are outside the scope of the analysis
18.	Marybeth Devlin	BLM's roundup will disseminate noxious and invasive weeds, such as cheatgrass.	See Section 4.7 of EA and Appendix III.
19.	Marybeth Devlin	BLM assumes a 20-percent foaling rate (146 newborns), making the estimated population 878. However, foals are not supposed to be counted for purposes of AML. Thus, removals will exceed the count, which is likely overstated as it is.	Most of the Foals during this gather will be weaned by January; therefore we are counting them towards AML during this gather.
20.	Marybeth Devlin	The EA does not support the proposed Wild Horse gather in the Eagle, Chokecherry, and Mt. Elinore HMAs. Until proper scientific studies are conducted and equitable resource management plans are formulated, I support what BLM improperly labels the	Commented Noted

		No Action Alternative -- defer gather -- at this time.	
21.	N-4 State Grazing Board	We are in full support of the actions called for in the recently completed RMP for bringing wild horse numbers to AML.	Comment Noted
22.	Board of County Commissioners Lincoln County, Nevada	Supports wild horses on multiple use public lands, provided they are kept within AML with gathers and population controls	Comment Noted
23.	Board of County Commissioners Lincoln County, Nevada	Lincoln County Strongly supports the Eagle, Chokecherry and Mt. Elinore HMA wild horse gather	Comment Noted
24.	Southern Nevada Water Authority	Supports gathering wild horses in the Eagle HMA	Comment Noted
25.	Southern Nevada Water Authority	SNWA is supportive of BLM's effort to increase Rangeland Management	Comment noted

Appendix VII

Observation Day Protocol and Ground Rules

These rules were created to ensure the safety of both the humans and the animals at the gather site(s).

A scheduled public observation day provides a more structured mechanism for interested members of the public to see the wild horse gather activities at a given site. On this day, BLM attempts to allow the public to get an overall sense of the gather process and has available staff who can answer questions that the public may have. The public rendezvous at a designated place and are escorted by BLM representatives to and from the gather site.

- The Bureau of Land Management (BLM) will schedule observation days to provide the media and public opportunities to view activities during the wild horse gather.
- To provide a safe environment for the animals, BLM staff, contractors and members of the public/media, requests will be accepted on a first come, first served basis and be limited to **10 people** per observation day. The BLM recommends all appointments be made as far in advance as possible in order to help us schedule and confirm your request, and will make every reasonable effort to accommodate the public.
- Observation days and gather operations may be suspended if bad weather conditions create unsafe flying conditions.
- The BLM will notify observers as soon as possible if an observation day is canceled due to bad weather.
- Observers must provide their own 4-wheel drive high clearance vehicle, appropriate shoes, clothing and food.
- Observers are prohibited from riding in government and contractor vehicles and equipment.
- Visitors arriving at the rendezvous site without an appointment will not be allowed to participate in the observation day.
- BLM representatives will escort visitors to and from the gather and/or temporary holding facility.
- Visitors will be assigned to a BLM representative and must stay with that person at all times.
- Visitors are **NOT** permitted to walk around the gather site unaccompanied by a BLM representative.
- The BLM will clearly identify observation areas and visitors **must** stay within these designated areas.
- Observers are prohibited from climbing/trespassing onto or in the trucks, equipment or corrals, which is the private property of the contractor.
- Visitors must direct their questions/comments to either a designated BLM representative or the BLM spokesperson on site, and not engage other BLM/contractor staff and disrupt their gather duties/responsibilities.
- BLM may make the BLM/contractor staff available during down times for a Q&A session.
- When given the signal that the helicopter is close to the gather site bringing horses in, visitors must sit down in areas specified by BLM representatives and must not move or talk as the horses are guided into the corral.

Observers will be polite, professional and respectful to BLM managers and staff and the contractor/employees. Visitors who do not cooperate and follow the rules will be escorted off the gather site by BLM law enforcement personnel, and will be prohibited in participating in any subsequent observation days.

Non-Observation day Protocol and Ground Rules

Non-observation days are days when the public is welcome to attend a gather on public land, or on specified private lands where permission was granted. The public is responsible for their own safety and health in their travels to and from the gather site.

- BLM staff will be limited on these days to answer questions.
- The public will be expected to remain in designated observation areas.
- Visitors are **NOT** permitted to walk around the gather site unaccompanied by a BLM representative.
- The BLM will clearly identify observation areas and visitors **must** stay within these designated areas.
- Observers are prohibited from climbing/trespassing onto or in the trucks, equipment or corrals, which is the private property of the contractor.
- Observers must provide their own 4-wheel drive high clearance vehicle, appropriate shoes, clothing and food.

- When given the signal that the helicopter is close to the gather site bringing horses in, visitors must sit down in areas specified by BLM representatives and must not move or talk as the horses are guided into the corral.

Observers will be polite, professional and respectful to BLM managers and staff and the contractor/employees. Visitors who do not cooperate and follow the rules will be escorted off the gather site by BLM law enforcement personnel, and will be prohibited in participating in any subsequent observation days.