United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Egan 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 Triple B, Maverick-Medicine, and Antelope Valley Herd Management Areas (HMAs) Wild Horse and Burro Gather (EA) DOI-BLM-NV-L010-2011-0004-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 Egan and Wells Field Offices.

The Environmental Assessment (EA) analyzes the Bureau of Land Management's (BLM) Egan and Wells Field Offices proposal to gather and remove excess wild horses from within and outside the Triple B, Maverick-Medicine, and Antelope Valley Herd Management Areas (HMAs) beginning around July 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 Ruth Thompson, BLM Ely District Wild Horse and Burro Specialist, at (775) 289-1800

Sincerely,

/s/ Gary Meldyn

Gary W, Medlyn
Field Manager
Egan Field Office

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Egan 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 (NVL01000)

DECISION RECORD (DR)
for
Wild Horse Gather Plan Environmental Assessment (EA)
for the Triple B, Maverick-Medicine, and Antelope Valley Herd Management Area Gather Plan
Egan Field Office
Well Field Office
DOI-BLM-NV-L010-2011-0004-EA

INTRODUCTION

The Bureau of Land Management (BLM) Egan and Wells Field Offices (FOs) have determined that excess wild horses are present within and outside the boundaries of the Triple B, Maverick-Medicine, and Antelope Valley Herd Management Areas (HMAs) and are proposing to gather and remove approximately 1,726 excess wild horses. The 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 on the range. If gather efficiencies do not allow for the completion of the Proposed Action in Summer 2011 or during FY 2012, the Egan and Wells FOs would return to the project area in 2013 or 2014 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 rate in order to extend the time before another gather to remove excess wild horses would be needed.

The Triple B, Maverick-Medicine HMAs, and portion of Antelope Valley HMA west of U.S. Highway 93 are located in northwestern White Pine and southern Elko Counties approximately 30 miles northwest of Ely, Nevada, and 70 miles southeast of Elko, Nevada. The Triple B HMA is approximately 1,225,000 acres in size, Maverick-Medicine HMA is approximately 337,134 acres in size, and Antelope Valley HMA (west of U.S. Highway 93) HMA is approximately 97,070 acres in size. The AML range established for the Triple B HMA is 250-518 wild horses, Maverick-Medicine HMA AML is 166-276 wild horses and Antelope Valley (west of U.S. Highway 93) HMA AML is 16-27 wild horses. An aerial direct count population inventory of the Triple B, Maverick-Medicine, Antelope Valley (west of U.S. Highway 93) HMAs and Cherry Springs WHT in November 2010 observed 1,832 wild horses.BLM estimates that at the time the proposed gather operation is implemented, the population within the combined area will be approximately 2,198 wild horses (which includes the 2011 foal crop). The gather area incorporates all three HMAs and WHT because each were determined to be above AML based on current inventory data and there is known movement of wild horses between the HMAs and WHT. Combining these areas into a single gather and coordinating the gather of the HMAs with the United

States Forest Service gather of the Cherry Springs WHT will allow for the achievement of AML on all of the HMAs and WHT, without merely shifting excess horses from one HMA to another.

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-L010-2011-0004-EA**.

DECISION

It is my decision to implement the Proposed Action as described in the final Environmental Assessment for the Triple B, Maverick-Medicine, and Antelope Valley HMAs (**DOI-BLM-NV-L010-2011-0004 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 required as 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 achieve and 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 Triple B, Maverick-Medicine, and Antelope Valley 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 Proposed Wells Resource Management Plan and Final Environmental Impact Statement (USDOI, 1983) (Wells RMP) approved July 16, 1985, and the Wells RMP Wild Horse Amendment and Decision Record, approved August 1993 (USDOI), 1993) (Wells RMPWHA). The application of fertility control and/or adjustment of sex ratios to 60% males and 40% females within the Triple B, Maverick-Medicine, and Antelope Valley HMAs as described in the Proposed Action would slow the population growth rate, maintain population size within AMLs and extend the time before another gather to remove excess wild horses becomes necessary. Attainment of the Proposed Action 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 Ely, Elko RMPs, and 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 or to 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 January 6, 2011. Written or mailed-in comments were received from 7 individuals and agencies. E-mail comments were received in form letters from 11,089 individuals and/or organizations. Many of these comments contained overlapping issues/concerns which were consolidated into 92 distinct topics. Refer to EA, Appendix VIII 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 Triple B, Maverick-Medicine, and Antelope Valley 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 Triple B, Maverick-Medicine, and Antelope Valley HMAs wild horse gather is approved to begin in the summer of 2011, but may be moved to FY 2012 (which runs from October 1, 2011 to September 30, 2012). 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/Gary Medlyn 5/17/2011

Gary W. Medlyn
Field Manager
Egan Field Office

Date

/s/Bryan Fuell 5/17/2011

Bryan K. Fuell
Manager
Wells Field Office

Date

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
for
Wild Horse Gather Plan Environmental Assessment (EA)
For the Triple B, Maverick-Medicine, and Antelope Valley Herd Management Area
Egan Field Office
Wells Field Office
DOI-BLM-NV-L010-2011-0004-EA

Based on the analysis of potential environmental impacts in the Environmental Assessment for the Triple B, Maverick-Medicine, and Antelope Valley Wild Horse Gather (DOI-BLM-NV-L010-2011-0004), 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 White Pine and Elko Counties (Nevada), 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 Proposed Wells Resource Management Plan and Final Environmental Impact Statement (USDOI, 1983) (Wells RMP) approved July 16, 1985, and the Wells RMP Wild Horse Amendment and Decision Record, approved August 1993 (USDOI), 1993) (Wells RMPWHA), 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 Wild Free-Roaming Horse and Burros Act of 1971 (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 II and Appendix VII) 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 Proposed Wells Resource Management Plan and Final Environmental Impact Statement (USDOI, 1983) (Wells RMP) approved July 16, 1985, and the Wells RMP Wild Horse Amendment and Decision Record, approved August 1993 (USDOI), 1993) (Wells RMPWHA), and is consistent with other Federal, State, local and tribal requirements for protection of the environment to the maximum extent possible.

/s/Gary Medlyn 5/17/2011

Gary W. Medlyn
Field Manager
Egan Field Office

Date

/s/Bryan Fuell 5/17/2011

Bryan K. Fuell
Manager
Wells Field Office

Date

Attachment
Wild Horse Gather Plan Environmental Assessment (EA)
For the Triple B, Maverick-Medicine, and Antelope Valley Herd 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:

Gary W. Medlyn, Egan 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

Environmental Assessment
DOI-BLM-NV-L010-2011-0004-EA
May 17, 2011

TRIPLE B, MAVERICK-MEDICINE, and ANTELOPE VALLEY HERD MANAGEMENT AREAS WILD HORSE GATHER

Location: White Pine and Elko Counties

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

BLM

1.0 Introduction

This Environmental Assessment (EA) has been prepared to analyze the Bureau of Land Management's (BLM) Ely District, Egan Field Office and Elko District, Wells Field Office proposal to gather and remove excess wild horses from within and outside the Triple B, Maverick-Medicine, and a portion of the Antelope Valley Herd Management Areas (HMA) west of U. S. Highway 93 (combined project area). The gather and removal of excess wild horses from the U.S. Forest Service's (USFS) Cherry Springs Wild Horse Territory (WHT) is also included in the proposed action and is covered by an existing USFS decision document. The Cherry Springs WHT is managed in accordance with an Interagency Agreement between the BLM and the USFS and is included for informational purposes and cumulative impact analysis.

This EA is a site-specific analysis of the potential impacts that could result from implementation of the Proposed Action or alternatives to the Proposed Action. The EA assists the BLM Egan and Wells Field Offices (FOs) in project planning, 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 analysis 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, Ely District Record of Decision and Approved Resource Management Plan (2008) (Ely RMP), Proposed Wells Resource Management Plan and Final Environmental Impact Statement (USDOI, 1983) (Wells RMP) approved July 16, 1985, and the Wells RMP Wild Horse Amendment and Decision Record, approved August 1993 (USDOI, 1993) (Wells RMPWHA).

1.1 Background

The Triple B HMA, Maverick-Medicine HMA, Antelope Valley HMA, and Cherry Springs WHT are located approximately 30 miles northwest of Ely, Nevada, and 70 miles southeast of Elko, Nevada, within White Pine and Elko Counties (Map 1). Table 1 below displays the total acreage and established Appropriate Management Levels (AML) for each of the HMAs and WHT.

The 2008 Ely RMP combined three existing HMAs (Buck and Bald, Butte, and Cherry Creek HMAs) into the Triple B HMA. The decision to combine all or portions of the three HMAs was due to the historical interchange of wild horses between the three HMAs and was also based on an in-depth analysis of habitat suitability and monitoring data as set forth in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement, Table 3.8-2 and Page 4.8-2. The 2007 EIS evaluated each herd management area for five essential habitat components and herd characteristics: forage, water, cover, space, and reproductive viability. Through this analysis and the subsequent Final RMP and Record of Decision (ROD) , the boundaries of the Triple B HMA were established to ensure sufficient habitat for wild horses, and an AML was reviewed and set that would achieve a thriving natural ecological balance and rangeland health.

The proposed wild horse gather of the Triple B HMA would be conducted in coordination and in

conjunction with the Elko District Office and Humboldt-Toiyabe National Forest, due to historic movement and continuing interchange of wild horses between the Triple B HMA (approximately 1,225,000 acres of public land), Maverick-Medicine HMA (approximately 337,134 acres of private/public land), Antelope Valley HMA (west of U.S. Highway 93) (approximately 97,070 acres of private/public land) and Cherry Springs WHT (approximately 23,794 acres of private/public land).

Table 1 Herd Management Area, Acres, AML, Estimated Population, and Estimated Numbers for Removal

Herd	Total Acres Private/Public land	Appropriate Management Level	Estimated* Population	Removal
Triple B	1,225,000	250-518	1,460	1,210
Maverick-Medicine	337,134	166-276	636	470
Portion of Antelope Valley West of U.S. Highway 93	97,070**	16-27	28	12
Cherry Springs WHT	23,794	40-68	74	34
Total	1,682,998	472-889	2,198***	1,726

* Estimated Population is based on the November 2010 Direct Count and projected 2011 foal crop based on a 20% growth rate. Based on seasonal movement wild horses numbers will fluctuate among the HMAs and WHT.
**Acres only represent the portion of Antelope Valley HMA west of U.S. Highway 93.
***At the time of implementation of the proposed gather operation, it is estimated that the population within the combined area will be approximately 2,198 wild horses (which includes the 2011 foal crop).

Since the passage of the *Wild Free-Roaming Horses and Burros Act of 1971*, management knowledge regarding wild horse population levels has increased. For example, it has been determined that 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 just establishing appropriate management level (AML) and conducting wild horse gathers to include a variety of management actions that further facilitate the achievement and maintenance of viable and stable wild horse populations and a "thriving natural ecological balance". Management actions resulting from shifting program emphasis include: increasing fertility control, adjusting sex ratio and collecting genetic baseline data to support genetic health assessments.

The AML is defined as the number of wild horses that can be sustained within a designated HMA which achieves and maintains a thriving natural ecological balance[1] in keeping with the multiple-use management concept for the area. The combined project area has an AML range of 472-889 wild horses which has been established through land use plans, Final Multiple Use Decisions, and Wild Horse Territory Management Plan. The AML range for the Triple B HMA

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, 1989).

is 250-518 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 (August 2008).

The Wells RMPWHA established a baseline AML of 389 wild horses for the Maverick-Medicine HMA and stated that adjustments will be based on monitoring and grazing allotment evaluations. The baseline AML was adjusted to 166-276 wild horses through a combination of the 1998 Spruce Final Multiple Use Decision, the 1994 Area Manager's Final Multiple Use Decision for the West Cherry Creek Allotment, and the 2001 Final Multiple Use Decision for the Maverick/Medicine Complex. The wild horses from this HMA travel back and forth across the Elko and White Pine County line, mixing with the wild horses from the Triple B HMA. They also move back and forth mixing with wild horses from the west portion of the Antelope Valley HMA west of U.S. Highway 93. The population within this HMA can fluctuate depending on the seasonal movement of the wild horses.

The portion of Antelope Valley HMA west of U.S. Highway 93 is included in this analysis due to wild horse seasonal movement between the Maverick-Medicine HMA and Triple B HMA. In 2001, the Nevada Department of Transportation (NDOT) fenced the U.S. Highway 93 Right of Way (ROW) to improve public safety as numerous vehicle/horse collisions had occurred in previous years. This fence separates the western portion of the Antelope Valley HMA from the rest of the HMA. The wild horses in the western portion of the HMA move freely back and forth with wild horses from the adjacent Triple B and Maverick-Medicine HMAs. The Wells RPMWHA established a baseline AML for the entire Antelope Valley HMA of 240 wild horses. The baseline AML for the entire HMA was adjusted to 155-259 wild horses in the 2001 Final Multiple Use Decision for the Maverick/Medicine Complex and established an AML range for the portion of the Antelope Valley HMA proposed for gathering in this EA of 16-27 wild horses.

Cherry Springs WHT established an AML of 40-68 wild horses through the Cherry Springs WHT Management Plan approved in July 1993. This population range was established based on monitoring data and wild horse seasonal movement within the Cherry Springs WHT. The population within the WHT fluctuates due to seasonal movement of the wild horses between the Triple B HMA and Cherry Springs WHT.

This combined project area (Triple B, Maverick-Medicine, Antelope Valley and Cherry Springs WHT) was last gathered in July 2006 with a post-gather estimated population of 610 wild horses. An aerial direct count population inventory of the project area in July 2008 observed 1,139 adult wild horses. A recent November 2010 aerial direct count inventory of the project area observed 1,832 wild horses. At the time of implementation of the proposed gather operation, it is estimated that the population within the combined area will be approximately 2,198 wild horses (which includes the 2011 foal crop). A direct count method counts every wild horse seen on the flight without double counting or adjusting any numbers.

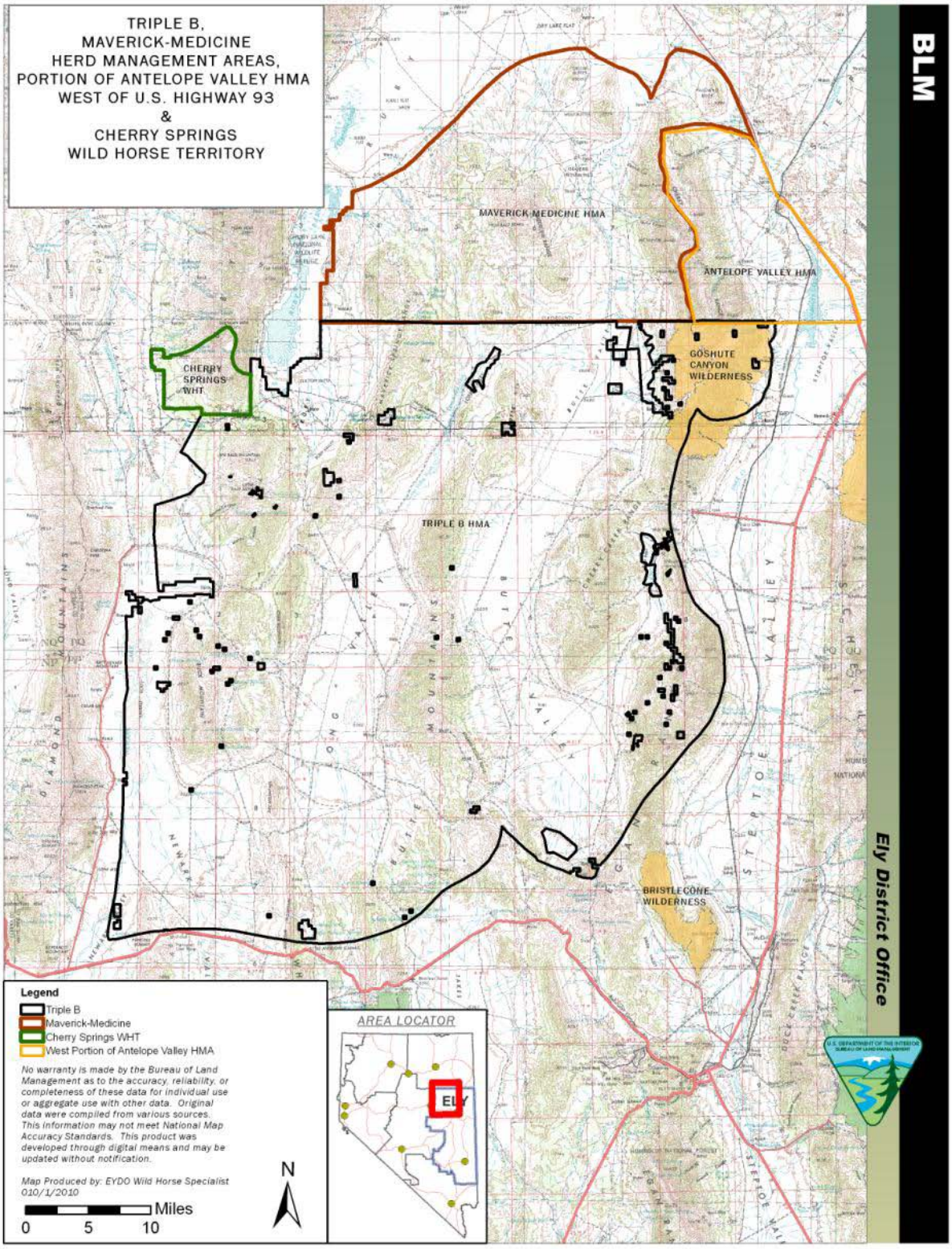
Wild horse numbers have increased an average of 20-25% annually since the HMAs and WHT were last gathered and are projected (with the 2011 foal crop) to be about five times over the low

range of AML and about 2.5 times over the high range of AML. By comparison, livestock use has remained at or below permitted use levels. Livestock use is consistent 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, and in order to bring the wild horse population to low range AML, the BLM has determined that there are approximately 1,726 excess wild horses within the combined area made up of the Triple B and Maverick-Medicine HMAs, portion of Antelope Valley HMA west of U.S. Highway 93, and Cherry Springs WHT. These excess wild horses 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. This assessment is based on factors including, but not limited to the following rationale:

- Triple B and Maverick-Medicine HMAs, Antelope Valley HMA (west of U.S. Highway 93), and Cherry Springs WHT estimated populations exceed the established AML ranges for the project area (Table 1).
- Use by wild horses is exceeding the forage allocated to their use by approximately 2.5 times (as measured against the high end of the AML range).
- Moderate to heavy utilization is evident on key forage species within HMAs in relation to water and animal distribution.

Map 1


TRIPLE B,
MAVERICK-MEDICINE
HERD MANAGEMENT AREAS,
PORTION OF ANTELOPE VALLEY HMA
WEST OF U.S. HIGHWAY 93
&
CHERRY SPRINGS
WILD HORSE TERRITORY
MAVERICK MEDICINE HMA
ANTELOPE VALLEY HMA
CHERRY SPRINGS WHT
GOSHUTE CANYON WILDERNESS
TRIPLE B HMA
BRISTLECONE WILDERNESS
BLM
Ely District Office
Legend
Triple B
Maverick-Medicine
Cherry Springs WHT
West Portion of Antelope Valley HMA
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
010/1/2010
Miles
0
5
10
N
AREA LOCATOR
ELY

1.2 Purpose and Need

The purpose of the Proposed Action is to remove excess wild horses from the HMAs in order to maintain the wild horse populations within the established AML ranges for the HMAs, to prevent undue or unnecessary degradation of the public lands and to protect rangeland resources from 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 protect rangeland resources and to prevent undue or unnecessary degradation of the public lands associated with an excess population of wild horses within the HMAs and to protect rangeland resources used by wild horses residing outside of the established 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) on page 46, 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 Proposed Action is in conformance with the Wells RMP and the Wells RMPWHA. In the Wells RMP on page 2-2 under Issue 7: Wild Horses, the following objective is stated:

- Objective: "To continue management of the six existing wild horse herds…consistent with other resource uses."

Management Actions 1, 2, and 3 under Issue 7 on pages 2-2 and 2-3 of the Wells RMP direct the management in the project area. The Wells RMPWHA further outlines the level of management for wild horses within the Maverick-Medicine and Antelope Valley HMAs.

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.

- White Pine County Portion (Lincoln/White Pine Planning Area) Sage Grouse Conservation Plan (2004)
- State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada Historic Preservation Office (1999)
- Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (February 12, 1997)
- White Pine County Elk Management Plan (2006 revision)

- The Endangered Species Act – 1973
- The Wilderness Act – 1964
- Migratory Bird Treaty Act (1918 as amended) and Executive Order 13186 (1/11/01)
- White Pine County Public Land and Natural Resource Management Plan, as adopted by the Board of County Commissioners of White Pine County (2007)
- Elko County Public Lands Policy Plan (Elko County Natural Resource Management Advisory Commission, 2008)
- Nevada Statewide Policy Plan for Public Lands (Nevada Division of State Lands,1986)
- Bureau of Land Management "Management Guidelines for Sage Grouse and Sagebrush Ecosystems in Nevada" (October 2000)
- Western Association of Fish and Wildlife Agencies (WAFWA) Guidelines to Manage Sage Grouse Population and their Habitats (2004)
- Federal Land Policy and Management Act of 1976

The Proposed Action is consistent with all applicable regulations at Title 43 Code of Federal Regulations (CFR) 4700 and policies. The Proposed Action is also consistent with the *Wild Free-Roaming Horses and Burros Act of 1971 (*WFRHBA*)*, 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* (emphasis added)."

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 Title 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.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

This chapter of the EA describes the Proposed Action and Alternatives, including any that were considered but eliminated from detailed analysis. Alternatives analyzed in detail include the following: A. Selective Removal to Low AML with fertility control and sex ratio adjustment; B. Removal to Low AML without fertility control or sex ratio adjustment; C. Gather Every Two to Three Years, Remove Excess Wild Horses to Low AML and Apply Two-Year Fertility Control (PZP-22) to Horses for Release and sex ratio adjustment; and No Action Alternative. Alternative A, Alternative B and Alternative C were developed to meet the purpose and need (i.e. to remove excess wild horses, maintain AML, and ensure a thriving natural ecological balance) and in consideration of the issues identified during internal scoping and agency consultation. Although the No Action Alternative does not comply with the WFRHBA of 1971 and does not meet the purpose and need for action, it is included as a basis for comparison with the Proposed Action.

2.1 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 1,726 excess wild horses within the combined project area to return the population levels to the low point of AML. All wild horses residing in areas adjacent to (i.e., outside of) the HMAs or WHT would be gathered and removed. The Proposed Action would also attempt to 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 all breeding age mares that are released and to adjust the sex ratio of animals on the range following the gather to favor males (60% studs). This is in line with the Director's proposed national WH&B strategy. The sex ratio of potential released animals will be dependent on the sex ratio of gathered wild horses with approximately 65% or more of all released wild horses are likely to be stallions so as to achieve a 60% male sex ratio on the range (including animals not gathered). Fertility control would be applied to all the released mares to decrease the future annual population growth. The procedures to be followed for implementation of fertility control are detailed in Appendix I.

Due to the mountainous terrain and vegetative cover, gather efficiency may be less than optimal. Population gather projections show that an 80% or greater gather efficiency (i.e, 80% of the current population of 2,198 or 1,758 horses gathered) is necessary to achieve the Proposed Action. If gather efficiency is less than 80%, an insufficient number of wild horses may be gathered to allow for the implementation of fertility control or to adjust sex ratio, or to achieve the low range of AML. If gather efficiencies do not allow for the attainment of the Proposed Action in summer 2011 or during FY 2012,[2] the proposed action would include returning to the Project Area in 2013 or 2014 to gather a sufficient number of wild horses to achieve the low range of AML as well as to allow the BLM to implement the population control component of the Proposed Action fertility control treatments (application of PZP-22) and sex ratio adjustments for wild horses remaining in the HMAs. Any follow-up gather activities would be conducted in a manner consistent with those described for the summer 2011 or FY 2012 gather. If a follow-up gather is necessary to complete the Proposed Action, the remaining activities necessary to achieve low range AML and carry out the population control measures could be implemented up to three years after the initial gather since the ungathered wild horses would have a heightened response to human presence and would therefore be more difficult to gather in the year immediately following the initial gather. Funding limitations and competing priorities might also require delaying the follow-up gather and population control component of the Proposed Action to fall 2015.

Excess wild horses would be removed using a selective removal strategy. Selective removal criteria for the HMA include: (1) First Priority: Age Class – Four Years and Younger; (2) Second Priority: Age Class – Eleven to Nineteen Years; (3) Third Priority: Age Class Five to Ten Years; 4) Fourth Priority: Age Class Twenty Years and Older would not be removed from the HMA unless specific exceptions prevent them from being turned back to the range. Due to the estimated current population size and likelihood that the gather efficiency will not reach the 80% target, it is anticipated that the majority of the wild horses gathered initially will be removed as excess. If it is necessary to undertake a follow-up gather, more of those gathered horses would be subject to release back into the HMA following implementation of population

[2] If the gather does not begin during the summer of 2011, the gather would be scheduled to occur during FY 2012 (October 1, 2011 – September 30, 2012)

control measures.

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 and outside the HMAs. The BLM would make every effort to place gather sites in previously disturbed areas, but if a new site needs to be used, a cultural inventory would be completed prior to using the new gather site. No gather sites would be set up near greater sage-grouse leks, or in riparian areas, cultural resource sites, Wilderness Study Areas (WSAs) or congressionally designated Wilderness Areas. All gather sites, holding facilities, and camping areas on public lands would be recorded with Global Positioning System equipment, given to the BLM Ely and Elko District Invasive, Non-native Weed Coordinators, and then assigned for monitoring during the next several years for invasive, non-native weeds. All gather and handling activities (including gather site selections) would be conducted in accordance with Standard Operating Procedures (SOPs) in Appendix II.

Herd health and characteristics data would be collected as part of continued monitoring of the wild horse herds. Other data, including sex and age distribution, condition class information (using the Henneke rating system), color, size and other information may also be recorded for all gathered wild horses. Genetic baseline data would be collected to monitor the genetic diversity of the wild horses within the combined project area.

Gathered wild horses would be transported to BLM holding facilities where they would be prepared for adoption and/or sale to qualified individuals who can provide them with a good home or for transfer to long-term grassland pastures.

2.2 Alternative B: Remove Excess Animals to Low Range AML Without Fertility Control or Sex Ratio Adjustment

Alternative B would be similar to Alternative A. However, once a sufficient number of wild horses to achieve low range AML (approximately 1,726 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 to slow the rate of wild horse population growth. All wild horses residing in areas adjacent to the HMAs or WHT would be gathered and removed. Gathered wild horses would be transported to BLM holding facilities where they would be prepared for adoption and/or sale to qualified individuals who can provide them with a good home or for transfer to long-term grassland pastures.

2.3 Alternative C: Gather Every Two or Three Years, Remove Excess Wild Horses to Low Range AML and Apply Two-Year Fertility Control (PZP-22) to Horses For Release & 60% Male Sex Ratio.

Alternative C would be similar to Alternative A in general except the HMAs would be gathered every two or three years in the future in order to maintain AML, apply two-year fertility control (PZP-22) to all mares released back to the HMA and to adjust the sex ratio within the HMA to favor males (60% studs). This alternative would gather and remove approximately 1,726 excess animals initially, and if gather efficiency is sufficient, would include the release of animals back to the HMA, and to adjust the sex ratio of animals on the range following the gather to favor males (60% studs). The sex ratio of potential released animals will be dependent on the sex ratio

of gathered wild horses with the likelihood that approximately 65% or more of all released wild horses are likely to will be stallions so as to achieve a 60% male sex ratio on the range (including animals not gathered). All wild horses residing outside of the HMAs or WHT would be gathered and removed. During the initial gather it may be difficult to gather a large enough portion of the population to adjust the sex ratio and administer fertility control to enough mares to make an impact on the population growth rate, so additional gathers on a two to three year cycle are proposed. With each subsequent gather, fewer excess wild horses would need to be removed and the wild horses gathered would represent a higher percentage of the total wild horse population within the HMAs due to the lower population size overall, which would allow the sex ratios to be adjusted and would allow for more mares to be treated or retreated prior to release back into the HMAs. The combination of these actions should lower the population growth rate within the HMAs. Any follow-up gathers would be conducted in the period of November through February in order to maximize the effectiveness of the administered fertility control (PZP-22). Though additional gathers are proposed in order to achieve and maintain the proposed population management actions and to maintain AML, the removal numbers would be low compared to the initial removal to achieve AML. All excess wild horses that are identified for removal would be transported to BLM holding facilities where they would be prepared for adoption and/or sale to qualified individuals who can provide them with a good home or for transfer to long-term grassland pastures.

2.4 Alternative D: No Action Alternative

Under the No Action Alternative, a gather to remove excess wild horses would not occur during summer 2011 or FY 2012. There would be no active management to control the size of the wild horse population or to bring the wild horse population to AML 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 2,638 head. 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 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 for 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 eliminated from detailed analysis was use of bait and/or water trapping as the primary gathering method. This alternative was dismissed from detailed study for the following reasons: (1) the size of the area at 1,682,998 acres is too large to effectively use this gather method; (2) road access for vehicles necessary to safely transport gathered wild horses is limited; 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 bait and/or water trapping.

Gather Excess Wild Horses Ages 0-4 years and Apply Two-Year Fertility Control (PZP-22)

This alternative would be to gather the HMAs, apply Two-Year Fertility Control (PZP-22) to breeding age mares, and only remove excess horses aging from 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 range for the HMAs and the wild horse population would continue to have an average population growth rate of 4.5% to 15.5%, adding to the current wild horse overpopulation, albeit at a slower rate of growth. This alternative would not decrease the existing overpopulation of wild horses, resource concerns (and impacts to the range) would continue, and implementation would result in significantly increased gather and fertility control costs. This alternative would not meet the purpose and need and was therefore eliminated from further consideration.

Gathering the HMAs to upper range of AML
A post-gather population size at the upper level of the AML would result in AML being exceeded with the next foaling season (i.e., by spring 2012). This would be problematic for several reasons.

The upper ranges of the AMLs established for the HMAs represent the maximum population at which a thriving natural ecological balance can be maintained. The lower end of the range 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 Interior Board of Land Appeals (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 API 1989). "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) (emphasis added).

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, damage to the rangeland, and increased stress to wild horses. For these reasons, this alternative did not receive further consideration or more detailed 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 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 Ely RMP, Wells RMP and Wells RMPWHA which direct that the Ely and Elko Districts of the 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 Triple B and Maverick-Medicine HMAs, and portion of Antelope Valley HMA west of U.S. Highway 93 are not substantially regulated by predators, as evidenced by the 20-25% annual increase in the wild horse populations that has been documented within these HMAs. In addition, wild horses are a long-lived species with documented foal survival rates exceeding 95% and 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 (or die off) of wild horses in the HMAs.

Raising the Appropriate Management Levels for Wild Horses

This alternative was not brought forward for detailed analysis because it is outside of the scope of the analysis, and is inconsistent with the 2008 Ely District ROD and Approved RMP (August 2008), Wells RMP, the Wells RMPWHA, and the WFRHBA which directs the Secretary to immediately remove excess wild horses, and is inconsistent with multiple use management. The Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) under Alternative D addressed that herds would be unmanaged except for removal of wild horses outside the herd management areas and would focus on eliminating livestock grazing throughout the planning area to protect vegetation and soil resources. The conclusion found that with the limited management approach in Alternative D for the herd management areas and the absence of fire management rapid deterioration of ecological systems within these areas would result and likely starvation of many animals as populations increase beyond what their habitat could support.

Make on-the-ground and individualized excess wild horse/burro determination prior to removal

An alternative to make on-the-ground and individualized excess wild horse/burro determinations prior to removal was recommended through the public review process under the view set forth by some commenter's that a tiered or phased removal of wild horses/burros from the range is mandated by the WFRHBA. Specifically, this alternative would involve a tiered gather approach, whereby BLM would first identify and remove old, sick or lame animals in order to euthanize those animals on the range prior to gather. Second, BLM would identify and remove horses/burros for which adoption demand exists by qualified individuals, such as younger horses or horses with unusual and interesting markings. Last, BLM would remove any additional excess horses/burros necessary to bring the horse/burro population back to AML.

This proposed alternative could be viable in situations where the project area is contained, the area is readily accessible and wild horses are clearly visible, and where the number of horses to be removed is so small that a targeted approach to removal can be implemented. Under the conditions present within the project area, however, this proposed alternative is impractical, if not impossible, as well as more disruptive to and less humane for a variety of reasons.

First, BLM does euthanize old, sick or lame animals on the range when such animals have been identified. This occurs on an on-going basis and is not limited to wild horse gathers. During a gather, if old, sick or lame animals are found and it is clear that an animal's condition requires the animal to be put down, that animal is separated from the rest of the group that is being herded so that it can be euthanized on the range. However, horses that meet the criteria for humane destruction because they are old, sick or lame usually, in most cases cannot be identified as such until they have been gathered and examined up close, so as to determine whether the horses have lost all their teeth, birth defects (i.e. club foot), injuries (old/new), and the overall wild horse condition. Old, sick and lame horses meeting the criteria for humane euthanasia are also only a tiny fraction of the total number of horses to be gathered, comprising on average about 0.5% of

gathered horses. Thus, in a gather of over 1,000 horses, potentially about five of the gathered horses might meet the criteria for humane destruction over an area of over 1 million acres. Due to the size of the Complex, access limitations associated with topographic and terrain features and the challenges of approaching horses close enough to make an individualized determination of whether a horse is old, sick or lame, it would be virtually impossible to conduct a phased culling of such horses on the range without actually gathering and examining the horses.

Similarly, rounding up and removing wild horses for which an adoption demand exists, before gathering any other excess wild horses would be both impractical and much more disruptive and traumatic for the animals. The size of the Complex, terrain challenges, difficulties of approaching the horses close enough to determine age and whether they have characteristics (such as color or markings) that make them more adoptable, the impracticalities inherent in attempting to separate the small number of adoptable horses from the rest of the herd, and the impacts to the horses from the closer contact necessary, makes such phased removal a much less desirable method for gathering excess wild horses. This approach would create a significantly higher level of disruption for the horses on the range and would also make it much more difficult to gather the remaining excess wild horses. Furthermore, if BLM plans to apply any population controls to gathered horses prior to release, it will be necessary to gather more than just the excess horses to be removed, making a phased approach to removal completely unnecessary and counter-productive.

Making a determination of excess as to a specific horse/burro under this alternative, and then successfully gathering that horse/burro would be impractical to implement (if not impossible) due to the size of the Complex, terrain challenges and difficulties approaching the wild horses close enough to make an individualized determination, would be extremely disruptive to the wild horses due to repeated culling and gather activities over a short period of time, would be cost-prohibitive, and would be unlikely to result in the successful removal of excess horses/burro or application of population controls to released horses. This approach would also be less humane and more disruptive and traumatic for the horses. This alternative was therefore eliminated from any further consideration.

Gather a portion of existing population, make an incremental reduction (500 horses) in the excess wild horses and implement fertility control treatments while evaluating habitat response

An alternative to gather a significant portion of the existing population (85%), remove an incremental portion of the population (500 horses) and implement fertility control was recommended through the public review process. Implementation of this alternative would reduce the existing population by 16-18% with the wild horse population would be anticipated to increase on an average rate of 15-20% annually. This rate of increase would fully offset the 500 horses that would be removed as of the 2012 foal crop and no significant progress would be made in reducing resource impacts from the current overpopulation of wild horses within the Complex. This alternative would not result in attainment of the AML range for the Complex as required by under the WFRHBA. This alternative was therefore eliminated from further consideration.

What are alternative capture techniques instead of helicopter capture of excess wild horses

exist
An alternative using capture methods other than helicopters to gather excess wild horses was suggested through the public review process. As no specific alternative methods were suggested, the BLM identified chemical immobilization, net gunning, and wrangler/horseback drive trapping as potential methods for gathering horses. Net gunning techniques normally used to capture big games also rely on helicopters. Chemical immobilization is a very specialized technique and strictly regulated. Currently the BLM does not have sufficient expertise to implement either of these methods and it would be impractical to use given the size of the Complex, access limitations and approachability of the horses.

Use of wrangler on horseback drive-trapping to remove excess wild horses can be fairly effective on a small scale but due to number of excess horses to be removed, the large geographic size of the Complex, access limitations and approachability of the horses this technique would be ineffective and impractical. Horseback drive-trapping is also very labor intensive and can be very harmful to the domestic horses and the wranglers used to herd the wild horses. For these reasons, this alternative was eliminated from further consideration.

Letting nature take its course

While some members of the public have advocated "letting nature take its course", allowing horses to die of dehydration and starvation would be inhumane treatment and would be contrary to the WFRHBA, which mandates removal of excess wild horses. The damage to rangeland resources that results from excess numbers of wild horses is also contrary to the WFRHBA, which mandates the Bureau to "*protect the range from the deterioration associated with overpopulation*", "*remove excess animals from the range so as to achieve appropriate management levels*", and "*to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area"*. Once the vegetative and water resources are at these critically low levels due to excessive utilization by an over population of wild horses, the weaker animals, generally the older animals and the mares and foals, are the first to be impacted. It is likely that a majority of these animals would die from starvation and dehydration. The resultant population would be heavily skewed towards the stronger stallions which would lead to significant social disruption in the HMA. By managing the public lands in this way, the vegetative and water resources will be impacted first and to the point that they have no potential for recovery. As the vegetation resources are over utilized to the point of no recovery wild horses start showing signs of malnutrition and starvation which lead to a catastrophic die off. This degree of resource impact would lead to management of wild horses at a greatly reduced level if BLM is able to manage for wild horses at all on the HMA in the future. For these reasons, this alternative was eliminated from further consideration.

Remove or Reduce Livestock within the HMAs
This alternative was not brought forward for detailed analysis because it is outside of the scope of the analysis, and is inconsistent with the 2008 Ely District ROD and Approved RMP (August 2008), Wells RMP, the Wells RMPWHA, and the WFRHBA which directs the Secretary to immediately remove excess wild horses, and is inconsistent with multiple use management developed through public decision-making processes and prior decision documents. Livestock

grazing is reduced or eliminated following the process outlined in the regulations found at 43 CFR Part 4100.

The allotment evaluation process has been completed for most of the livestock grazing allotments within the Triple B and Maverick-Medicine HMAs, and potion of Antelope Valley HMA west of U.S. Highway 93. This process evaluated grazing use by livestock and wild horses based on monitoring data analysis and interpretation. The terms and conditions of the livestock term permits were reviewed. Terms and conditions were modified as needed to ensure that grazing management practices or levels of grazing use were in conformance with allotment objectives or in conformance with the approved Northeastern Great Basin Area Standards and Guidelines. Terms and conditions that were reviewed, established, changed or adjusted as needed included actions such as livestock stocking levels, grazing systems, seasons of use, areas of use, livestock distribution, kind of livestock, and salting and herding practices. Forage utilization levels were also established. Final Multiple Use Decisions (FMUDs) or Grazing Decisions have been issued following public decision-making processes. Livestock grazing continues to be re-evaluated for allotments and use areas within the Triple B and Maverick-Medicine HMAs, and portion of Antelope Valley HMA west of U.S. Highway 93.

Monitoring and evaluation of livestock grazing in allotments within the Triple B HMA 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."

Monitoring and evaluation of livestock grazing in the Maverick-Medicine and the Antelope Valley HMAs is in accordance with the Wells RMP. The objectives for livestock grazing stated in the 1985 Approved Wells RMP and Record of Decision are, "Public rangelands are managed to: enhance the productivity of the rangelands by preventing overgrazing and soil deterioration; stabilize the livestock industry dependent on public range; provide for inventory and categorization based on conditions and trends; and provide for orderly use, improvement and development" and "To provide for livestock grazing consistent with other resource uses…" (pg17).

While the BLM is currently 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" under CFR 4710.5. This authority is usually applied in cases of emergency and not for general management of wild horses or burros, since the proper balance among multiple uses (and relative use between livestock and wild horses) has been established through the land-use planning processes and other multiple use decisions.

3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL EFFECTS

General Setting

The Triple B and Maverick-Medicine HMAs, and portion of Antelope Valley HMA west of U.S. Highway 93 are located in northwestern White Pine and southern Elko Counties approximately 30 miles northwest of Ely, Nevada, and 70 miles southeast of Elko, Nevada. 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 over 10,000 feet. Precipitation ranges from approximately 5 to 7 inches on the valley bottoms to 16 to 18 inches on the mountain peaks. Most of this precipitation comes during the winter months in the form of snow. Temperatures range from greater than 90 degrees Fahrenheit in the summer months to minus 15 degrees in the winter. The area is also utilized by domestic livestock and numerous wildlife species.

Table 2 summarizes which of the supplemental authorities 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 2. Summary of Supplemental Authorities 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

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 HMA boundaries.
Cultural Resources	Y	In accordance with the SOPs for Gather and Handling Activities in Appendix II (BLM/SHPO Protocol), gather facilities would be placed in previously disturbed areas whenever possible. Should new, previously undisturbed gather sites or holding facility locations be required, appropriate cultural resource inventories would be conducted first and any measures necessary to avoid any cultural resource impacts would be taken. Therefore, no direct impacts are expected from the Proposed Action.
Forest Health	N	The Proposed Action would have a negligible direct, indirect or cumulative impact to forest health. Detailed analysis not required.
Migratory Birds	Y	Analysis in EA
Rangeland Standards and Guidelines	N	The Proposed Action will continue to achieve or move towards achievement of Rangeland Health Standards and Guidelines. No detailed analyses necessary.
Native American Religious and other Concerns	N	No potential traditional religious or cultural sites of importance have been identified within the project area in the Ely District RMP Ethnographic Report (2003).
Wastes, Hazardous or Solid	N	No hazardous or solid wastes exist in the designated HMA boundaries, nor would any be introduced under the Proposed Action.
Water Quality, Drinking/Ground	N	No effects to water quality are expected. The Proposed Action would avoid spring, riparian, and stream locations.
Environmental Justice	N	No environmental justice issues are present at or near the project 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 gather Sites. The Proposed Action will not contribute either directly or indirectly to loss of potential farmlands. The effects would be minimal and no further analysis is necessary.

Resource/Concern	Issue(s) Analyzed? (Y/N)	Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis
Threatened and Endangered Species	N	Not known to be 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.
Water Resources (Water Rights)	N	No adverse effects to water resources or water rights are expected. Proposed Action would avoid spring, riparian, and stream locations.
Mineral Resources	N	There would be no effects on mineral resources through the Proposed Action.
Vegetation Resources	Y	Analysis in EA.

Identification of Issues:

Internal scoping was conducted by an interdisciplinary (ID) team on November 8, 2010, 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 NEPA Handbook H-1790-1 (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 Elko 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

Triple B HMA

The Egan RMP (1987 Ely District) designated the Buck and Bald, Butte, and Cherry Creek HMAs for the long-term management of wild horses. These HMAs were later combined into the Triple B HMA in the August 2008 Ely District Record of Decision (ROD) and Approved Resource Management Plan (RMP) due to the interchange between the three HMAs. The HMA is nearly identical in size and shape to the original Herd Areas representing where wild horses were located in 1971. Fences do exist within the HMA but do not restrict wild horse movement due to the fact that the fences our open at the end (open ended). Currently, management of HMAs and wild horse populations is guided by the Ely District RMP. The AML range for the HMA is 250-518 wild horses. The wild horses from this HMA travel back and forth across the Elko and White Pine County Line, mixing with the wild horses from the Maverick-Medicine HMA and western portion of the Antelope Valley HMA. Wild horses from this HMA also travel back and forth across the HMA and WHT boundary lines. The population within this HMA can fluctuate depending on the seasons due to the wild horse's migration patterns.

Maverick-Medicine HMA

The Wells RMPWHA, approved in August 1993 established a baseline AML of 389 for the Maverick-Medicine HMA. The amendment also stated that adjustments will be based on monitoring and grazing allotment evaluations. The AML for the Maverick-Medicine HMA was further adjusted to a range of 166-276 through the West Cherry Creek Final Multiple Use Decision in 1994, the Spruce FMUD in 1998, and the Maverick/Medicine Complex FMUD in 2001, based on available data. The wild horses from this HMA travel back and forth across the Elko and White Pine County line, mixing with the wild horses from the Triple B HMA. The population within this HMA can fluctuate depending on the seasons due to the wild horse's migration patterns.

Antelope Valley HMA

The portion of Antelope Valley HMA west of U.S. Highway 93 is included in this analysis due to wild horse seasonal movement between the Maverick-Medicine HMA. In 2001, the NDOT fenced the U.S. Highway 93 ROW to improve public safety as numerous vehicle/horse collisions had occurred in previous years. This fence separates the western portion of the Antelope Valley HMA from the rest of the Antelope Valley HMA. The wild horses in the western portion of the Antelope Valley HMA move freely back and forth with wild horses from the adjacent Triple B and Maverick-Medicine HMAs. The Wells RPMWHA established a baseline AML for the entire Antelope Valley HMA of 240 wild horses. The baseline AML for the entire Antelope Valley HMA was adjusted to 155-259 wild horses in the 2001 Maverick/Medicine Complex FMUD based on available data and established an AML range for the portion of the Antelope Valley HMA proposed for gathering in this EA of 16-27 wild horses.

Cherry Spring WHT

Cherry Springs WHT established an AML of 40-68 wild horses through the Cherry Springs

WHT Management Plan approved in July 1993. This population range was established based on monitoring data and wild horse seasonal movement within the Cherry Springs WHT. The population within the WHT fluctuates due to seasonal movement of the wild horses between the Triple B HMA and Cherry Springs WHT.

Combined Project Area

Population inventory flights have been conducted in the project area every two to three years. These population inventory flights have provided information pertaining to population numbers, foaling rates, distribution, and herd health. These population flights have shown the interchange between the HMAs/WHT with a large portion of the wild horse population summering on the Maverick-Medicine HMA and fall/winter within the Triple B HMA. A population inventory was conducted November 2010 utilizing a direct count method and 1,832 wild horses were observed throughout the project area. At the time of implementation of the proposed gather operation, it is estimated that the population within the combined area will be approximately 2,198 wild horses following the 2011 foal crop. At the time of the proposed gather the estimated population of wild horses will be approximately five times over the low end of the AML range. Wild horse body condition scores (BCS) within the HMAs range from a score of 3-4 based on the Henneke Body Condition Chart. Genetic baseline data would be collected to monitor the genetic diversity of the wild horses within the project area.

During summer months and dry years, water resources become very limited within these HMAs. As water resources become limited, wild horses tend to concentrate around the limited water sources causing negative effects to riparian resources. Due to the limited water resources within the HMAs on Public lands and because many of these sources have insufficient water to supply the current wild horse population, the BLM has been hauling water to designated spring sources within the HMAs. The Egan Field Office hauled water during summer 2010 to Sabala Spring in the Antelope Mountain Range in the southern portion of the Triple B HMA. The Wells Field Office has hauled water annually during mid-July thru mid October since 2005 to Cherry Springs in the Maverick Mountain Range for wild horses in the western portion of the Maverick-Medicine HMA. Water resources would continue to be monitored through the summer months prior to the gather to address any water availability concerns as wild horses will continue to concentrate at and impact areas around the limited water sources. If necessary, BLM would continue to provide water for wild horses until wild horse populations are within the appropriate management level (AML) and the springs sources have appropriate flows to sustain that population, including during periods of drought and critical need.

Sabala Spring's June 2010 water depressions; were water was available for wild horses as seen in the above photo.

Sabala Spring water depressions nearly dry from midsummer through late autumn as seen in the photo above, taken in mid-July 2010.

Cherry Spring 2008. No livestock use has occurred in this area since 2001.

BLM hauling water to Cherry Spring in August 2010. No livestock use has occurred in this area since 2001. Heavy to severe use by wild horses was observed around spring.

Rangeland resources have been and are currently being affected within the Triple B HMA due to the over-population of wild horses. Current monitoring data collected using Range Utilization Key Forage Plant Method over the last three years shows Moderate (41-60%) and Heavy (61-80%) utilization attributable to wild horses in relation to water and animal distribution. Use pattern mapping in April 2010 shows that moderate, heavy and severe utilization directly

attributable to wild horse overgrazing has occurred, with utilization for 20% of the Triple B HMA rated as light, 16% as moderate (41-60%), 7% as heavy (61-80%), and 5% as severe (81-100%).

Pre-livestock utilization collected using the Key Forage Plant Method in Valley Mountain Allotment and utilization in the Maverick/Ruby #9 Allotment within the Maverick-Medicine HMA was completed in 2010. Wild horse use was noted at every key area. The two key areas that received the highest percent utilization were SP-06 at 33% in the Valley Mountain Allotment (read in October 2010) and 4323-02 at 72% in the Maverick/Ruby #9 Allotment (read in May 2010). The heavy use levels at key area 4323-02 can be directly attributed to the site's proximity to Cherry Spring and the high concentration of horses in that area due to the scarcity of water during the hot season and inadequate water sources for the excess numbers of wild horses present in the area. These two key areas represent about 40% of the Maverick-Medicine HMA.

Standard determination documents and rangeland health evaluations have identified wild horses as a contributing factor for non-achievement of the standards for rangeland health or management objectives. These standard determination documents, evaluations and write-ups are available at the Egan and Wells Field Offices.

Photograph showing severe wild horse use on a sickle saltbush site in Butte Valley on 5/5/2009. Livestock operator has not grazed this area for the past three years (Livestock use occurs from 4/15 to 2/28.)

Population Modeling

Population modeling was completed for the proposed action and alternatives to analyze how the alternatives would affect the wild horse populations. Analysis included removal of excess wild horses with no fertility control, as compared to alternatives which consider removal of excess wild horses with fertility control and sex ratio adjustments. The No Action (no removal) Alternative was also modeled (Appendix III). The primary objective of the modeling was to identify if any of the alternatives "crash" the population or cause extremely low population numbers or growth rates. The results of population modeling show that minimum population

levels and growth rates would be within reasonable levels and adverse impacts to the population would not be likely under Alternatives A, B, C, and D. Graphic and tabular results are displayed in detail in Appendix III.

Table 2. The percent effectiveness of fertility control used in population modeling.

	Year 1[1]	Year2	Year3	Year4
Summer Application	Normal	80%	65%	50%
Winter Application	Normal	94%	82%	68%

[1]Year one is the year following the gather and treatment.

Environmental Impacts

Proposed Action – The Proposed Action would remove excess wild horses within the HMAs and outside the HMA boundaries. Under this alternative, excess wild horses would be removed to the lower range of the AML. The sex ratio of any animals released back to the range following the gather would be adjusted in favor of males, and fertility control would be applied to all breeding age mares that are released. The sex ratio of potential released animals will be dependent on the sex ratio of gathered wild horses with the likelihood of approximately 65% or more of all released wild horses likely to be stallions so as to achieve a 60% male sex ratio on the range (including animals not gathered).

Successful implementation of this alternative would be dependent on gathering 90-95% of the current wild horse population. Due to the mountainous terrain and vegetative cover, gather efficiency are likely to be less since historically gather efficiencies have averaged only about 80% on these HMAs. With the possibility of a lower gather efficiency, a follow up gather may be needed in the summer/fall of 2013 or 2014 to achieve low range AML and to complete the measures in the Proposed Action necessary to slow the wild horse population growth rate.

All mares selected for release would be treated with a two-year Porcine Zona Pellucida (PZP-22) or similar vaccine/fertility control and released back to the range. Immuno-contraceptive (fertility control) treatments would be conducted in accordance with the approved standard operating and post-treatment monitoring procedures (SOPs, Appendix I). Mares selected for release 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; 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 a fetus should the mare already be pregnant when vaccinated, hormone health of the mare, or behavioral responses to stallions (Kirkpatrick et al,

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 et. al, 1997).

The treatment would be controlled, handled, and administered by a trained BLM employee (SOPs, Appendix I). 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. Newly captured mares that do not have markings associated with previous fertility control treatments would be marked with new freeze-mark letters for tracking purposes. 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 three 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 four 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 released 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 removal of excess animals coupled with anticipated reduced reproduction (population growth rate) as a result of fertility control should result in improved health and condition of mares and foals as the actual population comes into line with the population level that can be sustained with available forage and water resources, and would allow for healthy range conditions (and healthy animals) over the longer-term. Additionally, reduced population growth rates would be expected to extend the

time interval between gathers and reduce disturbance to individual animals as well as to the herd social structure over the foreseeable future.

Bringing the wild horse population back to low range AML by achieving the proposed action would reduce damage to the range from the current overpopulation of wild horses and allow vegetation resources to start recovering, 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 gathering, 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 from these impacts is infrequent but does occur in 0.5% to 1% 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 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 bruises from biting and/or kicking, which do not break the skin.

The wild horses that are gathered would be subject to one or more of several outcomes listed below.

Temporary Holding Facilities During Gathers

Wild horses that are gathered would be transported from the gather 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 provided 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 12 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 provided 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, sale, or transport to a long-term grassland pastures. 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), which 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. Approximately 12,000 excess wild horses are being maintained within BLM's short-term holding facilities.

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 becomes 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. Sales of wild horses are conducted in accordance with the 1971 WFRHBA and congressional limitations.

Long-Term Grassland Pastures

Since fiscal year 2008, the BLM has removed over 31,680 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 grassland 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 28,600 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 LTPs 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. Horses residing on LTP facilities live longer, on the average, than wild horses residing on public rangelands, and the 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 or 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 2011 budgetary appropriations and is not expected to be available under

the 2012 budgetary appropriations. Although the appropriations restrictions could be lifted in future appropriations bills, it would be contrary to Departmental policy to euthanize or sell without limitations healthy excess wild horses.

Wild Horses Remaining or Released into the HMA following Gather

Under the Proposed Action, the post-gather population of wild horses would be about 472 wild horses, which is the combined low range of the AMLs 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 HMAs 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 HMAs. 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 HMAs 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, and conflicts among wild horse bands at water sources would also diminish. However, 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 thus increasing the necessity of reducing the population growth rate through the implementation the proposed fertility control and sex ratio adjustments.

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

The wild horses that remain in the HMAs 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.

Adverse 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 limited 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 would be 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 a few 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.

Foals are often 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 (2011) foals will be three to five months of age and may have already been weaned by their mothers. In private industry, domestic horses are normally weaned between four and six months of age.

Gathering wild horses during the summer months can potentially cause heat stress, gathering wild horses during the fall/winter months 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. The BLM and the contractor will be pro-active in controlling dust in and around the holding facility and the gather corrals to limit the horses' exposure.

Water resources would continue to be monitored through the summer months to address any potential concerns prior to the proposed gather operation. If necessary BLM would continue to provide water for wild horses until wild horse populations are within the appropriate management level (AML) as well as during any period of water shortage or critical need.

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 II). 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 helicopters for such gathers since the late 1970's. Refer to Appendix II for information on the 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 are 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 because only enough animals would be gathered to reduce the population to the low end of AML, sex ratios would not be adjusted and fertility control would not be applied. AML would be achieved but would most likely exceed the high end of AML sooner than the Proposed Action.

Alternative C – Impacts from this alternative would be similar to the Proposed Action; however, as this alternative would result in a slower population growth rate, there would be a greater reduction in impacts to rangeland resources and more opportunity for vegetative and riparian/water resources to recover. Implementation of this alternative would result in increased gather and fertility control costs which could reduce management activities in other areas. The more frequent gathers potentially could increase the impacts to individual wild horses due to the additional gathering and handling. The time needed to complete a gather would increase over time because frequently gathered wild horses tend to become more difficult to gather. They become very evasive, and learn to evade the helicopter by taking cover in treed areas and canyons. which in turn would make more difficult to successfully apply population controls to a large portion of the population. Wild horses could also move out of the area due to the helicopter activity, thereby further reducing the overall gather efficiency.

No Action Alternative – If No Action is taken, excess wild horses would not be removed from within or outside the Triple B and Maverick-Medicine HMAs, and portion of Antelope Valley HMA west of U.S. Highway 93 and the wild horse populations would not be brought to AML at this time. The animals would not be subject to the individual direct or indirect impacts as a result of a gather operation in summer 2011 or FY 2012. Over the short-term, individual animals in the herd would be subject to increased stress and possible death as a result of increased competition for water and forage as the population continues to grow even further in excess of the land's capacity to meet the wild horses' habitat needs. The areas currently 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 and denuded ground. Competition for the available water and forage between wild horses, domestic livestock, and native wildlife would continue and further 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 project area. Throughout the HMAs few predators exist to control wild horse populations. Some mountain lion predation occurs, but does not appear to be substantial. Coyotes are not prone to prey on wild horses unless young, or extremely weak. Other predators such as wolf or bear do not inhabit the area. Being a non-self regulating species, 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 as the population continues to grow. The 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, as well as injuries and death to all age classes of animals. 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. Allowing horses to die of dehydration and starvation would be inhumane treatment and would be contrary to the WFRHBA, which mandates removal of excess wild horses. The damage to rangeland resources that results from excess numbers of wild horses is also contrary to the WFRHBA, which mandates the Bureau to "*protect the range from the deterioration associated with overpopulation*", "*remove excess animals from the range so as to achieve appropriate management levels*", and "*to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area"*. Once the vegetative and water resources are at these critically low levels due to excessive utilization by an over population of wild horses, the weaker animals, generally the older animals and the mares and foals, are the first to be impacted. It is likely that a majority of these animals would die from starvation and dehydration. The resultant population would be heavily skewed towards the stronger stallions which would lead to significant social disruption in the HMA. By managing the public lands in this way, the vegetative and water resources will be impacted first and to the point that they have no potential for recovery. This degree of resource impact would lead to management of wild horses at a greatly reduced level if BLM is able to manage for wild horses at all on the HMA in the future. As a result, the No Action Alternative would not ensure healthy rangelands that would allow for the management of a healthy 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 also leave the boundaries of the HMAs in search of forage and water, thereby increasing impacts to rangeland resources outside the HMA boundaries as well. 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 "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 occupy a small but unique position on the landscape in the HMAs. Riparian areas are import to water quality, water quantity, and forage. Riparian sites provide habitat needs for many species and support greater numbers and diversity of wildlife than any other habitat type in the western United States. 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. Some of the spring sources within the HMAs are minimally functioning but with the presence of risk factors such as over utilization and trampling effects. The current over population of wild horses is contributing to resource damage and decline in functionality of spring sources.

Environmental Impacts

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

Managing the wild horse population within the established AML would relieve the current pressure on riparian areas and water sources, thereby helping to promote recovery of damaged riparian habitats. Trampling and trailing impacts would be reduced. Utilization of the available forage within the riparian areas would also be expected to be reduced to within acceptable levels (i.e., levels that allow for vegetative health). Over the longer-term, continued management of wild horses within the established AML would be expected to result in healthier, more vigorous vegetative communities. Hoof action on the soil around unimproved springs and along 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 some 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 – Initial impacts would be the same as in the Proposed Action. However, without slowing the population growth rate, a steady increase in the number of wild horses through natural foaling rates would begin impacting these riparian resources earlier than under the Proposed Action, which would slow down the recovery of these areas.

Alternative C – Impacts would be largely the same as described for the Proposed Action, except that the greater reduction in wild horse population growth under this alternative would provide more opportunity for recovery of riparian resources.

No Action Alternative – With the No Action Alternative, wild horse populations would continue to increase within the HMAs and to expand beyond the HMA boundaries. Increased horse use within and outside the HMAs would adversely impact additional 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 riparian areas in properly functioning condition would be foregone as ever increasing numbers of wild horses continue to trample and degrade other riparian areas, springs and associated water sources. Riparian areas that are currently in a Functional at Risk with a Downward Trend state would be expected to decline to a Non-

Functional state over time.

4.3. Wildlife, Including Migratory Birds

Affected Environment

There are approximately 350 species of vertebrate wildlife that potentially occur in northeastern Nevada (BLM Elko District 1992 Mammal, Bird, and Reptile and Amphibian Lists). The project area provides habitat for many of these species on a seasonal or yearlong basis. Examples of the highly visible wildlife species in the area include antelope, mule deer, and Rocky Mountain elk. The HMAs provide "crucial" summer and winter, year-long and intermediate habitat for mule deer as well as yearlong habitat for elk and pronghorn antelope.

Twenty-two sensitive species of migratory birds (including raptors) are thought or known to occur within the HMAs on a seasonal basis. These species use a variety of habitats. Healthy upland and riparian habitats are essential to provide suitable nesting habitat, foraging areas and cover. Raptor species are dependent on these habitats to provide cover and forage for their prey base.

Migratory Birds Affected Environment

On January 11, 2001, President Clinton signed Migratory Bird Executive Order 13186. This executive order outlines the responsibilities of Federal agencies to protect migratory birds and directs executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act. A list of the migratory birds affected by the President's executive order is contained in 50 CFR 10.13. References to "species of concern" pertain to those species listed in the periodic report "Migratory Nongame Birds of Management Concern in the United States", priority migratory bird species as documented by established plans (such as Bird Conservation Regions in the North American Bird Conservation Initiative or Partners in Flight physiographic areas), and those species listed in 50 CFR 17.11.

Predominant habitat types within the HMAs which may have migratory birds include: aspen, mountain riparian, mountain shrub, sagebrush, pinyon/juniper, salt desert scrub, playa and cliffs/talus habitat types. There are small inclusions of coniferous forest and mountain mahogany habitat types included in the upper elevations of the Cherry Creek Range. The Nevada Partners in Flight Bird Conservation Plan identifies the bird species associated with the predominant ecotypes, as listed in Appendix IV.

The migratory bird nesting season is from May 15 through July 15. No surface disturbing activity can be conducted during this time period without a nesting bird survey of the proposed project area.

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 gather sites, but this would only be for a few days at each trap site. There would be no direct impacts to animal populations as a result

of gather operations.

Removing excess wild horses from the project area 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.

Completion of the gather and achievement of the established AML would provide the best opportunity for conservation, protection and preservation of identified species and their habitats. Alternatives A and C would result in reduced competition for forage and water between wild horses and 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 but may exceed the high end of AMLs sooner than under the Proposed Action. If wild horse populations reach the high range of AML or exceed AML with new foal crops, wildlife habitat conditions may begin to decline sooner relative to the Proposed Action.

Alternative C – Impacts would generally be the same as described for the Proposed Action, except that the greater reduction in the wild horse population growth rate would provide more opportunity for recovery of vegetative and riparian resources and result in less competition between wild horses and wildlife for forage and water.

No Action Alternative – Wildlife (including migratory birds) would not be disturbed or displaced under the no action alternative. However, competition between wildlife and wild horses for forage and water resources would continue, and is likely to get worse as wild horse numbers continue to increase even further above AML. Wild horses are aggressive around water sources and some wildlife may not be able to compete, which could lead to the death of some individual animals. Wildlife habitat conditions would deteriorate as wild horse numbers above AML reduce herbaceous vegetative cover. This could also 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 project area. Several BLM sensitive animal species are found within the HMAs including several species of bats, raptors, and other birds. Appendix V provides a detailed summary of the definition of Special Status Species, outlines BLM policy regarding those species, and contains a list of Special Status Species known or likely to occur within the HMAs.

Golden eagles have been documented as year-round residents of the HMAs. Bald eagles have been documented and are likely winter foragers within the HMAs. On July 9, 2007, the bald eagle was removed ("de-listed") from the list of threatened and endangered species. After de-listing, bald eagles will continue to be protected under the Bald and Golden Eagle Protection Act (BGEPA) and Migratory Bird Treaty Act.

The greater 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. Greater sage-grouse use the majority of the Triple B HMA and portions of the Maverick-Medicine and Antelope Valley HMA throughout the year for all of their seasonal habitat needs. These needs include breeding (i.e., strutting grounds or leks), nesting and early brood-rearing, late brood-rearing or summer, winter and crucial winter. Greater sage-grouse require a herbaceous understory of forbs and grass for nest concealment, as well as to provide a diet of forbs and insects for the adults and their chicks. Riparian areas are frequently used by greater sage-grouse for late brood-rearing habitat. The project area contains large portions of the Ruby Valley and Butte Valley greater sage-grouse population management units (PMUs), with minor portions of the South Fork and Diamond PMUs. There are approximately 40 known greater sage-grouse leks within the HMAs.

There is potential pygmy rabbit habitat within the HMAs as well, as documented by sightings within the Triple B and Maverick-Medicine HMAs. Pygmy rabbits predominately inhabit tall sagebrush with deep friable soils for burrowing.

The HMAs provide aquatic and riparian habitat for four aquatic BLM Sensitive Species, the relict dace (*Relictus solitarius*), Bonneville cutthroat trout *(Oncorhynchus clarki Utah),* Newark Valley tui chub (*Gila bicolor newarkensis)* and North Steptoe springsnail (*Pyrgulopsis serrata*). The Newark Valley tui chub is known to be distributed in ponds throughout the Westside of Newark Valley. The springsnail inhabit a spring off of Phalen Creek, and the relict dace inhabit portions of Odgers Creek, both large spring complexes (North Odgers and County Line), the Ruby Valley Wildlife Refuge, and a scattering of small drainages in the eastern portion of the Triple B HMA. The Bonneville cutthroat trout is found in Goshute creek.

There is one BLM sensitive plant species found within the Triple B HMA, the Nachlinger catchfly *(Silene nachlingerae).* Gather sites and operations would avoid areas where these species may exist.

Environmental Impacts

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

Removing excess wild horses from the project area 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 at springs and seeps, thereby improving the habitat on which these sensitive species depend. Sensitive plant species would be less likely to be grazed or trampled after removing excess wild horses. Additionally, gather sites would not be located within areas containing 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.

Alternative C – Impacts would be generally the same as described for the Proposed Action, but sensitive species habitats would likely see more improvement over time since wild horse population growth rates would be less under this alternative.

No Action Alternative – Sensitive or special status species 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 increase even further above the established AMLs and further reduce herbaceous vegetative cover and increase trampling damage to riparian areas, springs, and stream banks. Wildlife habitat conditions would further deteriorate as wild horse numbers above AML continue to reduce herbaceous vegetative cover. This could result in lower nesting success for sage grouse and migratory birds. 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 Triple B and Maverick-Medicine HMAs, portion of Antelope Valley HMA west of U.S. Highway 93 and the Cherry Springs WHT include portions of several livestock grazing allotments. Permitted livestock grazing use in the HMAs and WHT include both cattle and sheep. Some livestock grazing occurs during all seasons. Livestock grazing is also permitted in areas immediately adjacent to the HMAs.

Table 3. Triple B Herd Management Area

Allotment	Season of Use	% of Allotment in HMA	Permitted Use (AUM)	Ten Year Average AUM Use	Percent Actual Use of Permit Use
Cherry Creek	5/01 to 2/28	22%	6,197	3,391	55%
Dry Mountain	10/01 to 4/01 Cattle and Sheep	100%	1,149	885	51%
Goshute Basin	7/01 to 10/15	97%	449	208	46%
Gold Canyon	6/20 to 11/30	59%	1,068	365	34%
Horse Haven	5/01 to 7/31	100%	1,056	20	2%
Indian Creek	7/01 to 8/31	100%	177	51	29%
Maverick Springs	3/01 to 2/28	100%	1,500	1,484	99%
Medicine Butte	3/01 to 2/28 Cattle 4/15 to 11/15 Sheep	98%	7,226	4,996	69%
Moorman Ranch	3/01 to 2/28	58%	10,092	3,664	36%
Newark	11/01 to 4/02	51%	9,709	3,472	36%
Ruby Valley	3/01 To 03/31 11/01 to 2/28	100%	467	428	92%
Thirty Mile Spring	4/15 to 2/28 Cattle and Sheep	32%	8,405	3,526	42%
Warm Spring	3/01 to 2/28 Cattle 11/01 to 11/30 Sheep	95%	7,709	5,786	75%
Warm Springs Trail		38%	2,480	321	13%
North Butte	8/01 to 10/31 2/15 to 4/15	100%	180	180	n/a*
South Butte	4/15 to 2/28	91%	396	347	88%
Steptoe	11/1 to 6/15	11%	2,836	1,710	60%
McDermid Creek[1]	3/1 to 2/28 Cattle	100%	--	--	--

*North Butte Allotment has not had an annually active grazing permit and only sustained grazing use during 2007 grazing season.

[1]The McDermid Creek Allotment is administered as part of the Currie Allotment by the Elko District. Permitted use and average AUM use is combined with the Currie Allotment in Tables 4 and 5.

Table 4. Maverick-Medicine Herd Management Area

Allotment	Season of Use	% of Allotment in HMA	Permitted Use (AUM)	Ten Year Average AUM Use	Percent Actual Use of Permit
Bald Mountain	6/15 to 9/15 Cattle	100%	312	210	67%
Currie	3/1 to 2/28 Cattle	3%	5,504	3,766	68%
Harrison[1]	4/16 to 12/3 Cattle	55%	620	199	32%
Maverick/Ruby #9	7/1 to 11/1 Cattle	92%	2,757	74	3%
North Butte Valley	4/15 to 12/22 Cattle	92%	2,420	1,005	42%
Odgers[2]	10/1 to 12/31 Cattle	100%	1,596	23	n/a[2]
Ruby #8[1]	4/20 to 9/30 Cattle	< 1%	1,963	1,721	88%
Valley Mountain	11/1 to 5/1 Cattle	40%	4,532	3,567	79%
West Cherry Creek	5/1 to 10/31 Cattle and Sheep	100%	2,674	1,424	53%

[1] Although technically within the Maverick-Medicine HMA, the Harrison and Ruby #8 Allotments are completely fenced from the remainder of the Maverick-Medicine HMA.

[2] The Odgers Allotment has not had an annually active grazing permit for over 20 years. Grazing use was approved once as Temporary Not Renewable (TNR) for the 2003-04 grazing season.

Table 5. Antelope Valley Herd Management Area

Allotment	Season of Use	% of Allotment in HMA	Permitted Use (AUM)	Ten Year Average AUM Use	Percent Actual Use of Permit
Currie	3/1 to 2/28 Cattle and Domestic Horses	91%	5,504	3,766	68%

Permitted livestock grazing use has been cumulatively reduced by approximately 51% over the past decades in these allotments. Allotments continue to be evaluated for achievement of the rangeland health standards and adjustments to livestock grazing are implemented as appropriate. Adjustments can include livestock stocking levels, seasons of use, grazing rotations, and other management requirements to better control livestock distribution.

Over the past ten years, actual use has also been less than permitted use for each of the grazing allotments (Tables 3 through 5), in many cases significantly less. This has been due, in part, to persistent drought and to competition with an over-population of wild horses for available forage.

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 operations. 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 end of the AML ranges sooner than under the Proposed Action.

Alternative C – Impacts would be generally the same as described for the Proposed Action but the high end of the AML ranges would not be reached as soon as 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. As wild horse numbers increase, livestock grazing within the HMAs would continue to be impacted by wild horses and may be further reduced in an effort to slow the deterioration of the range to the greatest extent possible.

4.6. Wilderness

Affected Environment

The Triple B HMA and the Antelope Valley HMA contain a portion of the Goshute Canyon Wilderness Area (WA). The Goshute Canyon WA lies in the Cherry Creek Range. The 13 mile long WA is a rugged, uplifted range, with massive white limestone cliffs jutting from its slopes. The lower elevations are thickly forested by pinyon pine and juniper, while bristlecone and limber pine occur at the higher elevations. Aspens and cottonwoods in the moist drainages provide for a cool retreat. Large high elevation basins rimmed by peaks contain pockets of aspen and white fir and are filled with wild flowers in the spring and summer. Snowmelt and numerous springs provide riparian settings and water sources for a great number of wildlife species including Bonneville cutthroat trout in Goshute Creek, mule deer, mountain lions, bobcats, and various birds of prey.

There are outstanding opportunities for primitive forms of recreation in the Goshute Canyon WA. Goshute Cave is an extensive limestone solution cave that offers excellent opportunities for caving and geological study. The cave is rich in formations and relatively well preserved although nearly 100 years of visitation has led to some deterioration.

Environmental Impacts

Proposed Action – Impacts to opportunities for solitude could occur during gather operations due to the possible noise of the helicopter and increased vehicle traffic around the wilderness. Those impacts would cease when the gather was completed. No surface impacts within wilderness are anticipated to occur during the gather since all gather 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 the resulting improvement of ecological condition of the plant communities and other natural resources.

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

Alternative C – 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 wild horse populations. Wilderness areas currently receive moderate 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 sight 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

Noxious weed and invasive non-native species introduction and proliferation are a growing concern among local and regional interests. Noxious weeds are known to exist on public lands within the administrative boundaries of the Wells and Egan Field Offices (Appendix VI). Noxious weeds are aggressive, typically nonnative, ecologically damaging, undesirable plants, which severely threaten biodiversity, habitat quality and ecosystems. Because of their aggressive nature, noxious weeds can spread into established plant communities mainly through ground disturbing activities. In addition new weed species and sites can become established when their seeds hitchhike in on equipment or vehicles. The following noxious or invasive weed species are known to exist within the HMAs.

Scientific Name	**Common Name**
Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Cicuta maculata	Water hemlock
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Conium maculatum	Poison hemlock
Hyoscyamus niger	Black henbane
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

These weeds occur in a variety of habitats including road side areas, rights-of-way, wetland meadows, as well as undisturbed upland rangelands.

Environmental Impacts

Proposed Action – The proposed gather may spread existing noxious or invasive weed species. This could occur if vehicles drive through infestations and spread seed into previously weed-free areas or inadvertently carry seeds that are attached to the vehicle or equipment. This is of particular concern when the gather crew moves from valley to valley. Black henbane is

primarily found in Newark Valley and a little in Long Valley; however this weed is not currently documented in Butte Valley or Steptoe Valley. The contractor together with the contracting officer's representative or project inspector (COR/PI) would examine proposed gather sites and holding corrals for noxious weeds prior to construction to eliminate the potential for noxious weed spread to other sites. If noxious weeds are found, the location of the facilities would be moved. Any equipment or vehicles exposed to weed infestations or arriving on site carrying dirt, mud, or plant debris would be cleaned before moving into or within the project area. All gather sites, holding facilities, and camping areas on public lands would be monitored for weeds during the next several years.

Noxious weeds can also spread into disturbed areas such as denuded and degraded areas subject to heavy or severe utilization or to trampling damage. The Proposed Action would help improve vegetative health, reduce disturbed or degraded areas, and reduce the vulnerability to noxious weed spread.

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 that would be susceptible to non-native plant species to invade.

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

Alternative C – Impacts would be the same as described for 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, increased wild horse numbers and continued overgrazing of the present plant communities could lead to an expansion of noxious weeds and invasive non-native species in disturbed and degraded areas of the range.

4.8. Vegetation

Affected Environment

The vegetative plant communities within the HMAs have developed on many different soil types with several kinds of parent materials. The vegetation is diverse with desert shrub/sagebrush/grass plant communities dominating the lower elevations while sagebrush/mountain shrub/grass/pinyon-juniper/mountain mahogany plant communities dominate the benches and higher elevation sites.

The plant species dominating the lower elevations include Wyoming big sagebrush, low sagebrush, black sagebrush, winterfat, shadscale, budsage, sickle saltbush, black greasewood, rabbitbrush, Indian ricegrass, Sandburg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, needlegrass and assorted forb species.

The plant species dominating the higher elevations include Wyoming big sagebrush, mountain sagebrush, black sagebrush, antelope bitterbrush, Utah serviceberry, snowberry, golden and squaw current, pinyon pine, Utah juniper, curlleaf mountain mahogany, limber pine, white fir,

bluebunch wheatgrass, needlegrass and assorted forb species.

Environmental Impacts

Proposed Action- The Proposed Action would temporarily impact vegetation as a result of 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 placed 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. Temporary gather sites may have a short term impact on vegetation at the gather site. However, other gather actives would have minimal effects since wild horses currently graze and trample vegetation in their normal activities including running through vegetation in groups of up to 80 horses or more. Additional impact from a potential trap site would be minimal due to the use of temporary panels with trap sites set near roads and in previously disturbed areas.

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 population to levels that would be at acceptable levels that ensure vegetative health. Over utilization of plants reduce the root structure, plant vigor and reproductive capability. Excessive removal of plant leaves destroys photosynthetic capability and ultimately kills the plant. Excessive accumulation of plant tissue also lowers the photosynthetic capability of the plant. The primary goal in grazing management is to maximize photosynthetic activity with controlled defoliation (Herbel 2004).

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.

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

No Action Alternative -Vegetation would continue to be heavily utilized, and with no controls wild horse populations would continue to increase rapidly, requiring increased amounts of forage. Plants would have less opportunity to photosynthesize before being grazed, which would reduce plant vigor and reproduction. With these increased impacts to native vegetation, rangeland health standards would not be achieved.

4.9. Soils/Watershed

Affected Environment

Soils within the HMAs are typical of the Great Basin and vary with elevation. Soils range in depth from very shallow (below 20 inches to bedrock) to deep (greater than 60 inches to bedrock) and are typically gravelly, sandy and/or silty loams. Soils that are located on low hill

slopes, upland terraces, and fan piedmont remnants are typically shallow to deep over bedrock or indurated duripans. They are highly calcareous and medium textured with gravel. Soils on mountain slopes are also calcareous and range from shallow to deep over limestone. Some of the mountain soils have high rock fragment content, and support pinyon and juniper trees. Mountain soils typically have gravelly to very gravelly silt loam textures. Soils on floodplains and fan skirts are deep, have silty textures, and are highly calcareous.

Environmental Impacts

Proposed Action- Project implementation would stay on existing roads, washes and horse trail areas, and only relatively small areas would be used for gathering and holding operations. Horses may be concentrated for a limited period of time in traps. Potential for soil compaction at the gather sites would occur but would be minimal and temporary and is not expected to adversely impact soil or hydrologic function. Long term impacts may be an improvement in soil conditions due to less soil compaction from trailing and trampling, and less soil erosion.

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

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

No Action Alternative- Soils and watersheds would continue to have horse use and as horse populations increase heavy trailing and trampling around water sources would occur, increasing soil erosion at disturbed sites. Watershed objectives would not be met due to increased impacts from even further increases in the horse over-population.

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. When the helicopter is working close to the ground, the rotor wash of the helicopter is a safety concern for members of the public 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 disturbance. Such disturbances also have the potential for similar harm to the members of the public.

Public observation of the gather activities on public lands would be allowed, but would be subject to observation protocols intended to minimize potential for harm to members of the public, to government and contractor staff, and to the wild horses being gather, and would be consistent with BLM IM No. 2010-164 and in compliance with Observation Day Protocol and Ground Rules 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 is addressed through the implementation of Observation Day Protocol and Ground Rules (see Appendix VII) that have been used in recent gathers to ensure that the public remains at a safe distance and does not impede 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.

Alternative C – 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 or the general public as no gather activities would occur.

4.11 Cultural Resources

Affected Environment

The combined area covers roughly 1.6 million acres and has had a very small portion of Section 106 inventory completed. Within the HMAs there are both prehistoric and historic archeological sites that will be avoided for the purposes of this gather. There are numerous historic roads and trails such as the Pony Express Trail (across the entire HMA), the Elko to Hamilton stage line (Newark Valley), and the Denver-Shepherd Toll Road (Newark Valley). Historic mining and grazing/herding activities have taken place within these HMAs and there may be historic structures or trash dumps encountered. Prehistoric sites may contain lithic scatters, rock rings, ceramics, shelters, ground stone, rock art, hearths, and quarries.

Environmental Impacts

Proposed Action-All temporary corrals and other affiliated facilities, in addition to parking, will be placed within previously disturbed areas whenever possible. If a facility needs to be placed within an undisturbed area a Class III inventory would first be conducted and a District Archeological Technician may conduct the inventory for the purposes of facility placement. All cultural resources will be avoided to prevent adverse effects to any properties potentially eligible to the National Register of Historic Places.

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

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

No Action Alternative- Wild horses will continue to increase in numbers and the overpopulation of wild horses may impact Cultural Resources, especially at water resource areas and from additional trailing patterns.

5.0 Cumulative Impacts

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 Triple B and Maverick-Medicine HMAs, the western portion of the Antelope Valley HMA, and the Cherry Springs WHT. (Map 1).

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

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	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 (including fencing water sources)	**x**	**x**	**x**
Wildlife guzzler construction	**x**	**x**	**x**
Invasive weed inventory/treatments	**x**	**x**	**x**
Wild horse and burro management: issuance of multiple use decisions, AML adjustments and planning	**x**	**x**	**x**

Any future proposed projects within the Triple B and Maverick-Medicine HMAs and the portion the Antelope Valley HMA west of Highway 93 would be analyzed in an appropriate environmental document following site specific planning. Future project planning would also include public involvement.

Past Actions

In 1971 Congress passed the Wild Free-Roaming Horses and Burros Act which placed wild and free-roaming horses and burros, 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 HMAs and WHTs, 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.

<u>Triple B HMA</u>

The Egan (1987) MFP (Ely District) designated the Buck and Bald, Butte, and Cherry Creek HMAs for the long-term management of wild horses. These HMAs were later combined into the Triple B HMA in the Ely District Record of Decision (ROD) and Approved Resource Management Plan (RMP) in August 2008 due to the interchange between the three 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 HMA and wild horse population is guided by the 2008 Ely District ROD and RMP. The AML range for the HMA is 250-518 wild horses. The Land Use Plan Policy 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 use and range monitoring studies were initiated to determine if allotment objectives were being achieved, or that progress toward the allotment objectives was being made.

Antelope Valley and Maverick-Medicine HMAs

Herd Areas were identified in 1971 as areas occupied by wild horses. The HMA was established in the late 1980s through the land use planning process as areas where wild horse management was a designated land use. Since the mid-1980s, AMLs have been established on the Elko BLM District HMAs.

In 1993 the Wells RMPWHA combined the western portion of the Cherry Creek Herd Area with the Maverick-Medicine HMA and eastern portion of the Cherry Creek Herd Area with the Antelope Valley HMA. This established a baseline AML of 389 wild horses for the Maverick-Medicine HMA and an AML of 240 wild horses for the Antelope Valley HMA. The Maverick-Medicine baseline AML was adjusted to 166-276 wild horses through a combination of the 1994 Area Manager's Final Multiple Use Decision for the West Cherry Creek Allotment, the 1998 Spruce Final Multiple Use Decision, and the 2001 Final Multiple Use Decision for the Maverick/Medicine Complex. The Baseline AML for the Antelope Valley HMA was adjusted to 155-253 wild horses in the 2001 Final Multiple Use Decision for the Maverick/Medicine Complex.

In 2001, the NDOT fenced the U.S. Highway 93 ROW to improve public safety as numerous vehicle/horse collisions had occurred in previous years. This fence separates the western portion of the Antelope Valley HMA from the rest of the HMA.

Cherry Springs WHT

Wild Horse Territories were identified in 1971 as lands that were territorial habitat of wild horses. The WHTs were established in the late 1980s through the land use planning process as areas where wild horse management was a designated land use. Since the mid-1980s, AMLs have been established in the Forest Service WHTs.

The AML for the Cherry Springs WHT was established at 40-68 wild horses through the Cherry Springs WHT Management Plan approved in July 1993. This population range was established based on monitoring data and wild horse seasonal movement within the Cherry Springs WHT. The population within this WHT can fluctuate depending on the seasons due to the wild horses' migration patterns between the Triple B HMA.

Combined Project Area

Due to laws and subsequent court decisions, integrated wild horse management has occurred in the Triple B, Maverick-Medicine and Antelope Valley HMAs and Cherry Springs WHT. Six gathers have been completed in the past on part or all of the HMAs/WHT, and future gathers would be scheduled on a 4- or 5- year gather cycle. Approximately 6,749 wild horses have been removed from the HMAs/WHT in the last 25 years; populations are thriving and have not been negatively impacted.

Adjustments in livestock season of use, livestock numbers, and grazing systems were made through the allotment evaluation/multiple use decision process. In addition, temporary closures to livestock grazing in areas burned by wildfires, or due to extreme drought conditions, were implemented to improve range condition.

The Northeastern Great Basin RAC developed standards and guidelines for rangeland health that have been the basis for assessing rangeland health in relation to management of wild horse and livestock grazing within the Ely and Elko Districts. Adjustments in numbers, season of use, grazing season, and allowable use have been based on the evaluation of progress made toward reaching the standards.

Several oil and gas exploration wells have been drilled across the CESA however none of these wells have gone into production. The Ely RMP/EIS summarized the history of oil and gas exploration on page 3.18-7 to 3.18-9.

Historical mining activities have occurred throughout the CESA.

Present Actions

Today the Triple B and Maverick-Medicine HMAs, the Antelope Valley HMA (west of U.S. Highway 93), and the Cherry Springs WHT have a combined estimated population of 2,198 wild horses (including projected 2011 foal crop). Resource damage is occurring in portions of the HMAs and WHT due to excess numbers of wild horses. 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 to a level that allows for a four-year gather cycle and to reduce population growth rates where possible. Program goals have expanded beyond establishing a "*thriving natural ecological balance*" by setting AML for individual herds to now include achieving and maintaining healthy and stable populations. If the Proposed Action is selected, the Humboldt-Toiyabe National Forest would be conducting a wild horse gather on their Cherry Springs Wild Horse Territory concurrently with the BLM.

Current policy and appropriations prohibit the destruction of healthy animals that are removed or deemed to be excess, even though authorized by the WFRHBA. 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 WFRHBA 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 grassland pastures in the Midwest to care for excess wild horses removed from the public range for which there is no adoption or sale demand.

The BLM is continuing to administer grazing permits and conduct vegetation treatments to improve watershed health. Within the proposed gather area 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 against the RAC Standards. The Northeastern Great Basin RAC Standards and Guidelines for Rangeland Health are the current basis for assessing rangeland health in relation to management of wild horse and livestock grazing within the Ely and Elko Districts. Adjustments to numbers, season of use, grazing season, and allowable use are based on evaluating progress toward reaching the standards.

Gold exploration and mining is on-going in the CESA, occurring primarily in the Buck, Bald,

and Cherry Creek Mountain Ranges. Mineral Exploration is on-going within the Maverick-Medicine HMA. Also the at the northern portion of the Triple B HMA is the Bald Mountain Mine.

Active oil and gas leases occur throughout the CESA. An oil and gas lease sale is scheduled for September 2011 and includes several parcels within the CESA.

The Falcon to Gondor Utilitiy Corridor crosses the CESA in Newark Valley north of Highway 50. This is a half mile wide corridor interconnecting with the Ely-to-Utah State Line portion of the Southwest Intertie Project corridor (see Ely RMP, LR-34B).

The Southwest Intertie Project Corridor crosses the CESA in Butte Valley north of Highway 50. This is a three quarter mile wide corridor from the Elko/White Pine County Line to the point where it parallels Highway 93 and the Pahranagat Wildlife Refuge, and at the half mile wide from that point to the Clark County line (See Ely RMP, LR-34D).

Reasonably Foreseeable Future Actions

In the future, the BLM would continue to manage these HMAs for wild horses consistent with available habitat, achieving a thriving natural ecological balance, maintaining genetic diversity, age structure, and sex ratios. Current policy is to express all future wild horse AMLs as a range, to allow for population growth between gathers, 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 in the BLM's Ely would focus on an integrated ecosystem approach with the basic unit of analysis being the watershed. Currently the Egan Field Office is completing the Newark Watershed analysis. This process will identify actions associated with habitat improvement within the HMA. 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 indication of pending amendments to WFRHBA, any amendments could change the management of wild horses 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, but the content is any amendments is currently unknown.

Under the Director's proposed new WH&B management strategy (currently in draft), the BLM would place greater emphasis on the use of fertility control, including "catch, treat and release" (CTR) gathers, boost adoptions, establish a comprehensive animal welfare program, and call on the National Academy of Sciences (NAS) to review previous wild horse management studies and make recommendations on how the BLM should proceed in light of the latest scientific research. At the conclusion of the NAS study, the BLM will determine whether there is a need for a comprehensive EIS that would analyze the potential impacts of the several wild horse and burro management options – or if changes in federal law are needed in order to place the Wild Horse and Burro Program on a more sustainable track over the long-term.

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. The combination of these factors should result in an increase in stability of gather schedules and longer periods of time between gathers.

The proposed gather 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, oil, natural gas, and mineral 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.

Bald Mountain Mine is planning to expand their current mining and exploration operations.

Impacts Conclusion

Past actions regarding the management of wild horses have resulted in the current wild horse population within the Triple B and Maverick-Medicine HMAs, the western portion of the Antelope Valley HMA, and the Cherry Springs WHT. 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 HMAs and WHT.

Most past and all present and reasonably foreseeable future actions have noxious and invasive weed prevention stipulations and required weed treatment requirements associated with each project. This in combination with the active BLM Ely and Elko District Weed Management Program will minimize the spread of weeds throughout the watershed.

6.0 Mitigation Measures and Suggested Monitoring

Proven mitigation and monitoring are incorporated into the Proposed Action through SOPs, which have been developed over time. These SOPs (Appendix I, II, and III) represent the "best methods" for reducing impacts associated with gathering, handling, and transporting wild horses and collecting herd data. Hair samples will be collected to establish a genetic baseline for the wild horses from the Triple B and Maverick-Medicine HMAs, the portion of Antelope Valley HMA west of U.S. Highway 93, and Cherry Springs WHT; additional samples will be collected during future gathers (in 10-15 years) to determine trend. If monitoring is found to indicate that genetic diversity is not being adequately maintained, 5-10 young old mares from HMAs in similar environments may be added every generation (every 8-10 years) to avoid inbreeding and maintain acceptable genetic diversity. Ongoing resource monitoring data, including climate

(weather), 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 and 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 Ely District Office will host the state-wide meeting on June 15, 2011; the current gather operation SOPs will be reviewed in response to the concerns expressed and appropriate changes to the SOPs will be made.

The use of helicopters and motorized vehicles has proven to be a safe, effective and practical means for the gather and removal of excess wild horses and burros from the range. Since July 2004, Nevada has gathered 26,000 animals with a total mortality of 1.1% (of which 0.5% was gather related), which is very low when handling wild animals. BLM also avoids gathering wild horses during March 1 through June 30, which represents the six weeks before and six weeks after peak foaling.

The Ely and Elko District BLM have coordinated with Nevada Department of Wildlife (NDOW) during the yearly coordination meeting on this gather.

On December 22, 2010 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.blm.gov/nv, for a 30 day public review and comment period that opened on January 6, 2011 and closed on February 7, 2011. Written comments were received from seven individuals, e-mail comments and form letters were received from 11,089 individuals. Many of these comments contained overlapping issues/concerns which were consolidated into 92 distinct topics. Refer to EA, Appendix VIII 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 the Triple B, Maverick-Medicine, and Antelope Valley Herd Management Areas is available on the BLM's web site at www.blm.gov/nv; in the map of Nevada, click on the Ely District and you will be directed to the Ely District webpage.

8.0 List of Preparers

Ely District Office		
Name	**Title**	**Responsible for the Following Section(s) of this Document**
Ruth Thompson	**Wild Horse Specialist**	**Project Lead/ Wild Horse Specialist**
Marian Letcher	**Wildlife Biologist**	**Wildlife, Migratory Birds, Special Status Species**
Mindy Seal	**Noxious & Invasive Weeds Specialist**	**Non-native Invasive Species Including Noxious Weeds**
Zach Peterson	**Forester**	**NEPA, Air Quality, Environmental Justice, Forestry**
Melanie Peterson	**Environmental**	**Human Health and Safety, Hazardous Wastes**

	Protection Specialist	
Dave Jacobson	**Wilderness Planner**	**Wilderness**
Mark D'Aversa	**Hydrologist**	**Soil, Water, Wetlands and Riparian/Flood Plans**
Amanda Anderson **TJ Mabey**	**Rangeland Management Specialist**	**Livestock Grazing**
Leslie Riley	**Archaeologist**	**Cultural Resources**
Elvis Wall	**Native American Coordinator**	**Native American Religious Concerns**
Elko District Office		
Bruce Thompson	**Wild Horse Specialist**	**Wild Horses, Elko District**
Terri Dobis	**Rangeland Management Specialist**	**Livestock Grazing, Vegetation**
Pat Coffin	**Fisheries Biologist**	**Wildlife, Migratory Birds, Special Status Species**
Nycole Burton	**Natural Resource Specialist**	**Wildlife, Migratory Birds, Special Status Species**
Jill Jensen	**Archaeologist**	**Cultural Resources**
Mark Dean	**Hydrologist**	**Soil, Water, Wetlands and Riparian/Flood Plains**
Tamara Hawthorne	**Outdoor Recreation Planner**	**Visual Resource Management and Wilderness**
Brian Mulligan	**Natural Resource Specialist**	**Non-native Invasive Species and Noxious Weeds**
Donna Jewell	**Supervisory Natural Resource Specialist**	**Livestock Grazing, Special Status Species, Wildlife, Migratory Birds**

9.0 REFERENCES, GLOSSARY AND ACRONYMS

9.1 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.

Curtis, P.D., Pooler, R.L., Richmond, M.E., Miller, L.A., Mattfield, G.F., Quimby, F.W. 2002. Comparative effects of GnRH and porcine zona pellucid (PZP) immuniocontraception vaccines for controlling reproduction in white-tailed deer (Odocoileus virginianus). Reproduction Supplement 60:131-141.

Elko County Natural Resource Management Advisory Commission. 2008. Elko County Public Lands Policy Plan. Elko County Commissioners, Elko County Natural Resource Management Advisory Commission, Elko, NV.

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.

Heilmann, T.J., Garrott, R.A., Caldwell, L.L., Tiller, B.L. 1998. Behavioral response of free-ranging elk treated with an immunocontraceptive vaccine. Journal of Wildlife Management 62:243-250.

Herbel, H. Carlton., Jerry L. Holechek., Rex D. Pieper., Range Management Principles and Practices. Fifth Edition. 2004 pg 141-142

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

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.

Madosky, J.M., Rubenstein, D.I., Howard, J.J., Stuska, S. In press. The effects of immunocontraception on harem fidelity in a feral horse (Equus caballus) population. Appl. Anim. Behavior Sci.

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 Division of State Lands. 1986. Nevada Statewide Policy Plan for Public Lands. Nevada Division of State Lands, State of Nevada, Carson City, NV.

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

NOAA. www.cpc.ncep.noaa.gov

Nunez, C. M.V., Adelman, J.S., Mason, C., and Rubenstein, D.I. 2009 Immunocontraception decreases group fidelity in a feral horse population during the non-breeding season. Appl. Anim. Behavior Sci. 117:74-83.

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.

Powell, D.M. 1999. Preliminary evaluation of porcine zona pellucid (PZP) immunocontraception for behavioral effects in feral horses (Equus caballus). J. Appl. Anim. Welfare Sci. 2:321-335.

Protection Institute of America V. Nevada BLM, 109 Interior Board of Land Appeals 115 API 1989.

118 Interior Board of Land Appeals 75.

Ransom JI, Cade BS, Hobbs NT. 2010. Influences of immunocontraception on time budgets, social behavior, and body condition in feral horses. Appl. Anim. Behavior Sci. 124:51-60

Shumake, S.A., Wilhelm, E.S. 1995. Comparisons of effects of four immunocontraceptive treatments on estrous cycle and rutting behavior in captive white-tailed deer. Denver Wildlife Research Center, Colorado, USA.

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 Management (Third ed.). Society for Range Management, 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.

Turner, A, and Kirkpatrick, JF. 2002. Effects of immunocontraception on population, longevity and body condition in wild mares (Equus caballus). Reproduction (Suppl. 60): 187-195.

USGAO. 2008. Bureau of Land Management Effective Long-Term Options Needed to Manage Unadoptable Wild Horses. GAO-09-77

USDOI. 1983. Proposed Wells Resource Management Plan and Final Environmental Impact Statement. U.S. Department of the Interior, Bureau of Land Management.

USDOI. 1985. Approved Wells RMP and Record of Decision. U.S. Department of the Interior, Bureau of Land Management.

USDOI. 1993. Wells RMP Wild Horse Amendment and Decision Record. U.S. Department of the Interior, Bureau of Land Management. BLM-EK-PT-93-001-1610.

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.

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. 2000 Wildlife Fertility Control: Fact and Fancy. Zoo Montana Science and Conservation Biology Program, Billings, Mt.

9.2 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 for Fertility Control Treatment

22-month time-release pelleted vaccine:

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

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 II

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 offered 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 any time or for any reason during BLM operations.

J. Responsibility and Lines of Communication

Contracting Officer's Representative/Project Inspector

Ruth Thompson, Wild Horse and Burro Specialist, Ely District
Ben Noyes, Wild Horse and Burro Specialist, Ely District
Bruce Thompson, Wild Horse and Burro Specialist, Elko District
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 Egan Supervisory Natural Resource Specialist and the Egan 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 III

Triple B and, Maverick-Medicine HMA and Western Portion of the Antelope Valley HMA Population Modeling

To complete the population modeling for the Triple B and, Maverick-Medicine HMA and west portion of Antelope Valley HMA, version 3.2 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 WinEquus population for the Garfield HMA 1997.

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: Normal, Year 2: 80%, Year 3: 65%, Year 4: 50%

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: 2011
- Initial Gather Year: 2011
- 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: 58% males
- Percent of the population that can be gathered: 85%
- 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:

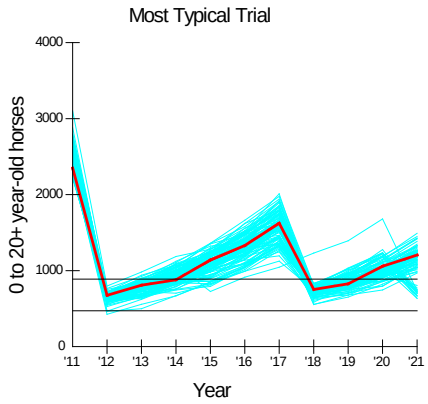
Population Modeling Parameters

Modeling Parameter	Alternative A Proposed Action (Remove to Low Limit of Management Range, Adjust sex ratio 60-40 & Fertility Control)	Alternative B Remove Excess Animals (Low Point AML) Without Fertility Control	Alternative C Gather Every Two Years, Remove Excess Wild Horses to Low AML and Apply Two-Year Fertility Control (PZP-22) to Horses for Release & 60% Male Sex Ratio	Alternative D No Action (No Removal & No Fertility Control)
Management by removal, 60:40 adjustment in sex ratio, and fertility control	Yes	No	Yes	N/A
Management by removal only	No	Yes	No	N/A
Threshold Population Size Following Gathers	889	889	889	N/A
Target Population Size Following Gathers	472	472	472	N/A
Gather for fertility control regardless of population size	No	No	No	N/A
Gathers continue	Yes	No	Yes	N/A

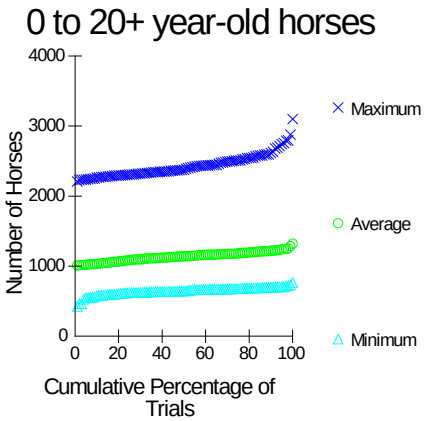
after removals to treat additional females				
Effectiveness of Fertility Control: Year 1	80%	N/A	80%	N/A
Effectiveness of Fertility Control: Year 2	65%	N/A	65%	N/A
Effectiveness of Fertility Control: Year 3	50%	N/A	50%	N/A

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

Most Typical



Population Size



Population Sizes in 11 Years*

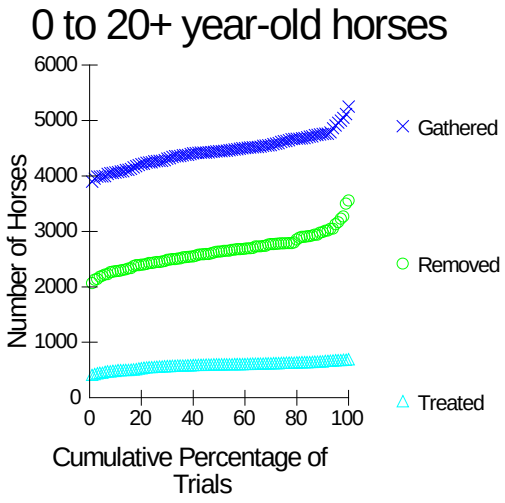
	Minimum	Average	Maximum
Lowest Trial	425	1008	2209
10th Percentile	578	1031	2266
25th Percentile	620	1084	2308
Median Trial	646	1138	2384
75th Percentile	678	1182	2510
90th Percentile	700	1219	2624
Highest Trial	766	1320	3100

* 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 425 and the highest was 3,100. In half the trials, the minimum population size in 11 years was less than 646 and the maximum was less than

2,384. The average population size across 11 years ranged from 1,008 to 1,320.

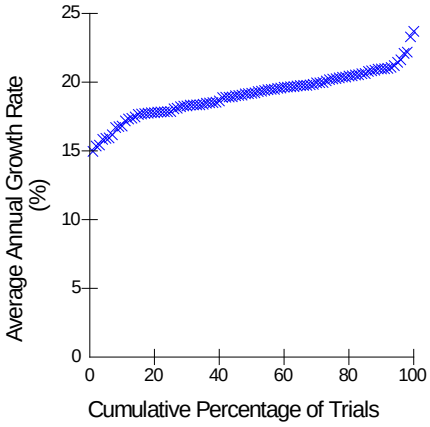
Gather



	Totals in 11 Years*		
	Gathered	Removed	Treated
Lowest Trial	3895	2066	412
10th Percentile	4066	2282	490
25th Percentile	4266	2440	558
Median Trial	4448	2636	602
75th Percentile	4628	2784	632
90th Percentile	4760	2997	660
Highest Trial	5251	3556	695

* 0 to 20+ year-old horses

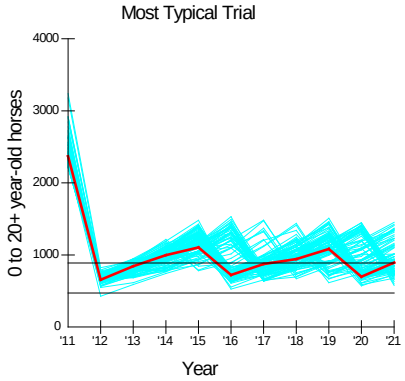
Growth Rate



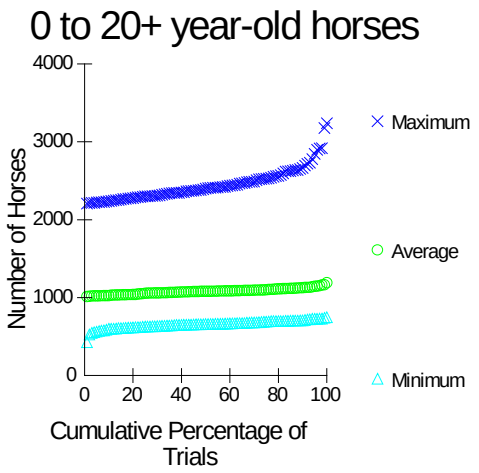
Average Growth Rate in 10 Years	
Lowest Trial	15.0
10th Percentile	17.0
25th Percentile	18.0
Median Trial	19.2
75th Percentile	20.2
90th Percentile	21.0
Highest Trial	23.7

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

Most Typical



Population Size

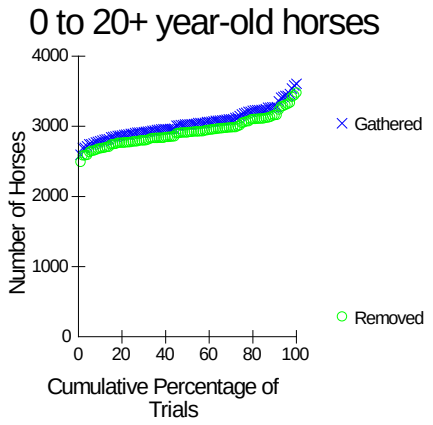


Years*	Population Sizes in 11		
	Minimum	Average	Maximum
Lowest Trial	428	1013	2208
10th Percentile	600	1027	2240
25th Percentile	628	1056	2300
Median Trial	660	1080	2402
75th Percentile	692	1102	2530
90th Percentile	710	1128	2680
Highest Trial	748	1190	3239

* 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 428 and the highest was 3,239. In half the trials, the minimum population size in 11 years was less than 660 and the maximum was less than 2,402. The average population size across 11 years ranged from 1,013 to 1,190.

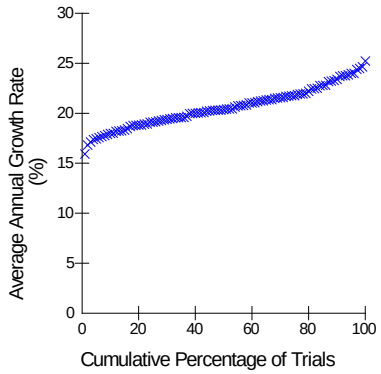
Gather



	Totals in 11 Years*	
	Gathered	Removed
Lowest Trial	2595	2493
10th Percentile	2791	2688
25th Percentile	2898	2783
Median Trial	3026	2916
75th Percentile	3177	3052
90th Percentile	3274	3161
Highest Trial	3607	3481

* 0 to 20+ year-old horses

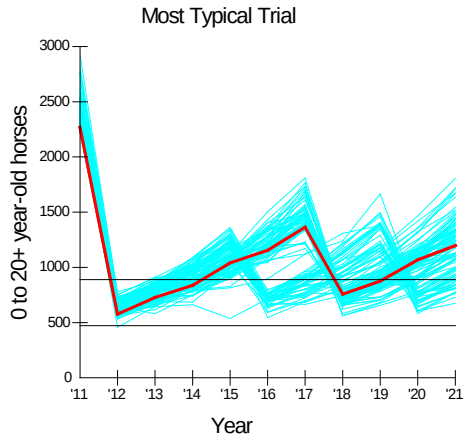
Growth Rate



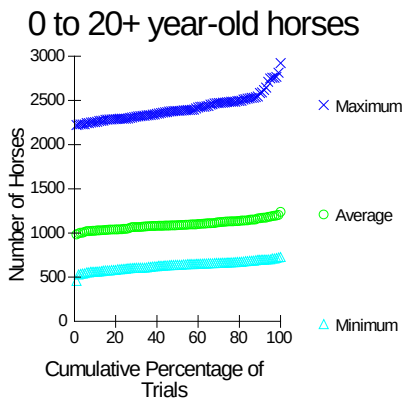
Average Growth Rate in 10 Years	
Lowest Trial	15.9
10th Percentile	18.0
25th Percentile	19.1
Median Trial	20.4
75th Percentile	21.8
90th Percentile	23.5
Highest Trial	25.2

Alternative C: Gather Every Two or Three Years, Remove Excess Wild Horses to Low AML and Apply Two-Year Fertility Control (PZP-22) to Horses For Release & 60% Male Sex Ratio.

Most Typical



Population Size

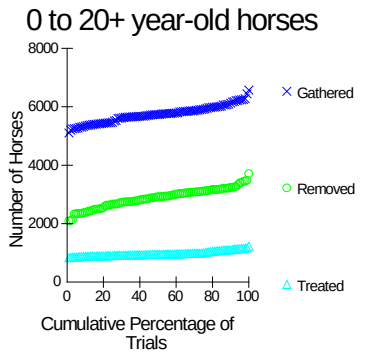


	Population Sizes in 11 Years*		
	Minimum	Average	Maximum
Lowest Trial	458	982	2221
10th Percentile	562	1027	2256
25th Percentile	598	1048	2294
Median Trial	640	1088	2382
75th Percentile	668	1130	2484
90th Percentile	698	1169	2588
Highest Trial	728	1238	2922

* 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 458 and the highest was 2,922. In half the trials, the minimum population size in 11 years was less than 640 and the maximum was less than 2,382. The average population size across 11 years ranged from 982 to 1,238.

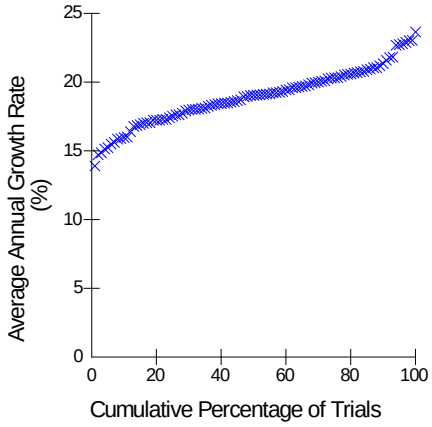
Gather



	Totals in 11 Years*		
	Gathered	Removed	Treated
Lowest Trial	5102	2090	829
10th Percentile	5350	2392	876
25th Percentile	5492	2668	906
Median Trial	5732	2920	946
75th Percentile	5920	3118	1002
90th Percentile	6144	3236	1109
Highest Trial	6571	3712	1227

* 0 to 20+ year-old horses

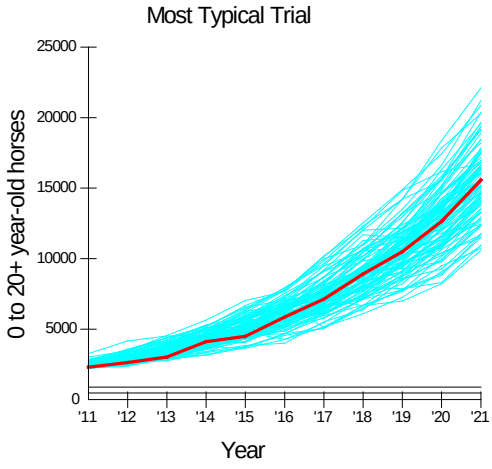
Growth Rate



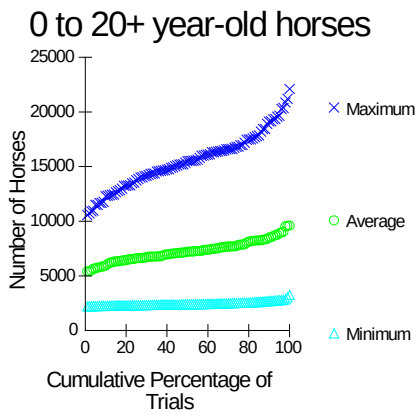
Average Growth Rate in 10 Years	
Lowest Trial	13.9
10th Percentile	16.0
25th Percentile	17.6
Median Trial	19.0
75th Percentile	20.3
90th Percentile	21.5
Highest Trial	23.6

Alternative D: No Action

Most Typical



Population Size

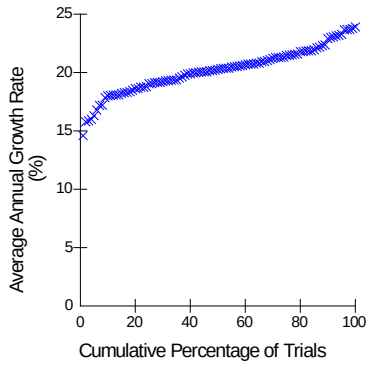


Population Sizes in 11 Years*	Minimum	Average	Maximum
Lowest Trial	2208	5414	10579
10th Percentile	2257	5996	12316
25th Percentile	2310	6611	13808
Median Trial	2400	7209	15504
75th Percentile	2534	7837	16888
90th Percentile	2700	8514	19132
Highest Trial	3266	9597	22107

* 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 2,208 and the highest was 22,107. In half the trials, the minimum population size in 11 years was less than 2,400 and the maximum was less than 15,504. The average population size across 11 years ranged from 5,414 to 9,597.

Growth Rate



Average Growth Rate in 10 Years	
Lowest Trial	14.6
10th Percentile	18.0
25th Percentile	19.0
Median Trial	20.3
75th Percentile	21.5
90th Percentile	23.0
Highest Trial	23.9

Appendix IV: Migratory Birds by Ecotype

Aspen	Mountain Riparian	Mountain Shrub	Sagebrush	Pinyon/Juniper
Obligates*: see Monatane Riparian **Other**:** Northern Goshawk Calliope Hummingbird Flammulated Owl Lewis's Woodpecker Red-naped Sapsucker Mountain Bluebird Orange-crowned Warbler MacGillivray's Warbler Wilson's Warbler	**Obligates:** Wilson's Warbler MacGillivray's Warbler **Other:** Cooper's Hawk Northern Goshawk Calliope Hummingbird Lewis's Woodpecker Red-Naped Sapsucker Orange-crowned Warbler Virginia's Warbler Yellow-breasted Chat	**Obligates:** None **Other:** Black Rosy Finch Black-throated Gray Warbler Calliope Hummingbird Cooper's Hawk Loggerhead Shrike Blue Grosbeak Vesper Sparrow MacGillivray's Warbler Orange-crowned Warbler Swainson's Hawk Western Bluebird	**Obligates:** Sage Grouse **Other:** Black Rosy Finch Ferruginous Hawk Gray Flycatcher Loggerhead Shrike Vesper Sparrow Prairie Falcon Sage Sparrow Sage Thrasher Swainson's Hawk Burrowing Owl Calliope Hummingbird **Other associated species:** Brewer's Sparrow Western Meadowlark Black-throated Sparrow Lark Sparrow Green-tailed Towhee Brewer's Blackbird Horned Lark Lark Sparrow	**Obligates:** Pinyon Jay Gray Vieo **Other:** Ferruginous Hawk Gray Flycatcher Juniper Titmouse Mountain Bluebird Western Bluebird Virginia's Warbler Black-throated Gray Warbler Scott's Oriole **Other Associated Species:** Mountain Quail Scrub Jay Black-billed Magpie Clark's Nutcracker Mountain Chickadee

Salt Desert Scrub	Lakes (Playas)***	Cliffs and Talus
Obligates: None **Other:** Loggerhead shrike Burrowing owl Sage thrasher Sage sparrow **Other Associated Species:** Horned lark Brewer's sparrow Black-throated sparrow Lark sparrow Rock wren	**Obligates (PIF-listed as Wetlands/Lakes):** White-faced Ibis Snowy Plover American Avocet Black Tern **Other (**PIF-listed as Wetlands/Lakes**):** Sandhill Crane Long-billed Curlew Short-eared Owl **Other Associated Species: (Wetlands/Lakes)** American bittern Great Egret Snowy Egret Cattle Egret Black-crowned Night Heron Marsh Wren Common Yellowthroat Yellow-headed Blackbird	**Obligates:** Prairie Falcon Black Rosy Finch **Other:** Ferruginous Hawk **Other Associated Species:** Golden Eagle White-throated Swift Say's Phoebe Common Raven Cliff Swallow Violet-green Swallow Canyon Wren Rock Wren

* "Obligates" are species that are found only in the habitat type described in the section. [Habitat needed during life cycle even though a significant portion of their life cycle is supported by other habitat types]

** "Other" are species that can be found in the habitat type described the Nevada Partners in Flight Bird Conservation Plan.

*** Other Associated (Wetlands/Lakes) Species are predominately associated with wetlands where emergent aquatic vegetation provides cover and foraging areas. Otherwise, snow pond/playas/manmade reservoirs could provide some seasonal habitat for some of the species shown.

Source: Nevada Partners in Flight Bird Conservation Plan

Appendix V: Special Status Species

Definitions of Special Status Species and BLM Policy

Federally Threatened or Endangered Species: Any species that the U.S. Fish and Wildlife Service has listed as an endangered or threatened species under the Endangered Species Act throughout all or a significant portion of its range.

Proposed Threatened or Endangered Species: Any species that the Fish and Wildlife Service has proposed for listing as a Federally endangered or threatened species under the Endangered Species Act.

Candidate Species: Plant and animal taxa that are under consideration for possible listing as threatened or endangered under the Endangered Species Act.

BLM Sensitive Species: Species 1) that are currently under status review by the U.S. Fish and Wildlife Service, 2) whose numbers are declining so rapidly that Federal listing may become necessary; 3) with typically small and widely dispersed populations; or 4) that inhabit ecological refugia or other specialized or unique habitats.

State of Nevada Listed Species: State-protected animals that have been determined to meet BLM's Manual 6840 policy definition.

Nevada BLM policy is to provide State of Nevada Listed Species and Nevada BLM Sensitive Species with the same level of protection as is provided for candidate species in BLM Manual 6840.06C. Per wording for Table IIa. in BLM Instruction Memorandum No. NV-98-013, Nevada protected animals that meet BLM's 6840 policy definition are those species of animals occurring on BLM-managed lands in Nevada that are: (1) 'protected" under authority of Nevada Administrative Codes 501.100 - 503.104; (2) have been determined to meet BLM's policy definition of "listing by a State in a category implying potential endangerment or extinction," and (3) are not already included as a federally listed, proposed, or candidate species.

Special Status Species known or likely to occur within the Triple B, Maverick-Medicine, western portion of Antelope Valley HMAs

COMMON NAME	SCIENTIFIC NAME	Habitat Types						
		Sagebrush[1] /grass	Mountain[2]/ Shrub	Riparian[3]	Cliffs/ Talus[4]	Pinyon/ Juniper[5]	Salt Desert Scrub[6]	Playas/ Lakes[7]
(USFWS) Federally Listed Threatened Species								
None knownknown								
BLM Sensitive Species								
bald eagle (winter resident)	*Haliaetus leucocephalus*	X	X	X	X			
golden eagle	*Aquila chrysaetos*	X	X		X			
Western burrowing owl	*Athene cunicularia*	X					X	
ferruginous hawk	*Buteo regalis*	X			X	X		
Swainson's hawk	*Buteo swainsonii*	X	X	X				
northern goshawk	*Accipiter gentilis*			X				
peregrine falcon	*Falco peregrinus*	X	X	X	X			

prairie falcon	*Falco mexicanus*	**X**	**X**	**X**	**X,O**			
Relict dace	*Relictus solitaries*			**X**				
Bonneville cutthroat trout	*Oncorhynchus clarki Utah*			**X**				
Newark Valley tui chub	*Gila bicolor nearkensis*			**X**				
Steptoe springsnail	*Pyrgulopisi serrata*			**X**				
dark sandhill skipper	*Polites sabuleti nigrescens*			**X**				

COMMON NAME	**SCIENTIFIC NAME**	**Habitat Types**						
		Sagebrush[1] /grass	**Mountain[2]/ Shrub**	**Riparian[3]**	**Cliffs/ Talus[4]**	**Pinyon/ Juniper[5]**	**Salt Desert Scrub[6]**	**Playas/ Lakes[7]**
BLM Sensitive Species, continued								
loggerhead shrike	*Lanius ludovicianus*	**X**	**X**				**X**	
vesper sparrow	*Poocetes gramineus*	**X**	**X**					
juniper titmouse	*Baeolophus griseus*					**X**		
pinyon jay	*Gymnorhinus cyanocephalus*					**X,O**		
gray vireo	*Vireo vicinor*					**X,O**		
short-eared owl	*Asio flammeus*	**X**	**X**	**X**				**X**
flammulated owl	*Otus flammeolus*			**X**				
Northern long-eared owl	*Asio otus*	**X**	**X**	**X**				
sage grouse	*Centrocercus urophasianus*	**X,O**	**X**	**X**				
black rosy finch	*Leucosticte atrata*	**X**	**X**		**X,O**			
long- billed curlew	*Numenius americanus*							**X**
snowy plover	*Charadrius alexandrinus*							**X,O**
sandhill crane	*Grus canadensis*							**X**
black tern	*Chlidonias niger*							**X,O**
Preble's shrew	*Sorex preblei*			**X,O**				
silver haired bat	*Lasionycteris noctivagans*			**X**				
western pipestrelle	*Pipistrellus hesperus*			**X**				**X**
long-eared myotis	*Myotis evotis*			**X**	**X**	**X**		
long-legged myotis	*Myotis volans*				**X**	**X**		
Yuma myotis	*Myotis yumanensis*			**X**	**X**			
spotted bat	*Euderma maculatum*			**X**	**X**			
little brown bat	*Myotis Lucifugus*			**X**	**X**	**X**		
small-footed myotis	*Myotis ciliolabrum*			**X**	**X**	**X**		
fringed myotis	*Myotis thysanodes*		**X**	**X**	**X**	**X**		
Pacific Townsend's big-eared bat	*Corynorhinus townsendii pallescens*			**X**	**X,O**	**X**		
Brazilian free-tailed bat	*Tadarida braziliensis*		**X**	**X**				**X**
pallid bat	*Antrozous pallidus*	**X**		**X**	**X,O**	**X**	**X**	
hoary bat	*Lasiurus cinereus*			**X**		**X,O**		

pygmy rabbit	*Brachylagus idaohensis*	**X,O**	**X**	**X**				
big brown bat	*Eptesicus fuscus*	**X**	**X**	**X**		**X**	**X**	
short –horned lizard	*Phrynosoma douglassii*	**X**			**X**			
State of Nevada Sensitive Species								
white faced ibis	plegadis chihi	**X,O**						**X,O**

O Obligate Species – Obligate species are species which are dependent on a specific habitat type to complete their life cycles. They may; however, use other habitats as well.

[1] The Sagebrush/grass habitat type is dominated by big sagebrush, low sagebrush, shadscale, bud sage, and rabbit brush, respectively. Associated grass species include: bluebunch wheatgrass, Idaho fescue, Sandberg bluegrass, needlegrass, and bottlebrush squirreltail. Forbs include arrowleaf balsamroot, lupine, phlox, and aster

[2]The Mountain shrub habitat type can be found in the mid-upper elevations within the Complex. Representative sagebrush species include: mountain big sagebrush, low sagebrush, and basin big sagebrush. The pre-dominant browse species are bitterbrush, snowberry and serviceberry. Associated grass species are bluebunch wheatgrass and Idaho fescue.

[3]Riparian habitats are primarily lentic (standing water) within the HMAs. Lentic riparian areas include springs, seeps, wet and mesic meadows. Vegetation in lentic areas generally include: sedges, rushes, aspen, willow species, alder, Complex species.

[4]Cliffs and Talus habitat types occur as a result of uplift and erosion within erosion resistant rock types such as silica and carbonate-rich materials. Talus occurs as result of fallen rock which collects at the base of the cliffs. In general, plants are absent from the rock faces.

[5]Pinyon/Juniper habitat is dominated by stands of either singleleaf pinyon (Pinus monopylla) or any of four species of juniper including Utah (Juniperus osteosperma), Western (J. occidentalis), Rocky Mountain (J. scopulorum) or California (J. californica).

[6]Salt desert scrub habitat is characterized by the presence of a variety of salt-tolerant shrubs of the family Chenopodiaceae, predominantly shadscale and greasewood.

[7]Playa and wetland habitat within the complex is primarily characterized by seasonal wetlands of varying character, quality and periodic longevity.

Appendix VI

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

TRIPLE B, MAVERICK-MEDICINE, AND ANTELOPE VALLEY HERD MANAGEMENT AREAS
WILD HORSE GATHER

White Pine and Elko Counties, Nevada

On March 4, 2011 a Noxious & Invasive Weed Risk Assessment was completed for this wild horse gather. This weed risk assessment only covers the Triple B HMA, Maverick-Medicine HMA, and Antelope Valley HMA.

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 1,726 excess wild horses within the Triple B, Antelope Valley and Maverick Medicine 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-22) to 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 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 and outside the HMAs. 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) in Appendix II.

Alternative B is removal to low AML without fertility control or sex ratio adjustment. Alternative C is to gather every two or three years, remove excess wild horses to low AML and apply two-year fertility control (PZP-22) to horses for release and sex ratio adjustment, and No Action Alternative. All of these actions would have the same standard operating procedures for weeds as Alternative A.

No Action Alternative: Under the No Action Alternative, a gather to remove excess wild horses would not occur during summer 2011 or FY 2012. 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.

No field weed surveys were completed for this project. Instead the Ely and Elko Districts weed inventory data was consulted. Currently, the following weed species are found within the Triple B HMA, Maverick-Medicine HMA, and Antelope Valley HMA and along roads and drainages leading to the project area:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Cicuta maculata	Water hemlock
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Conium maculatum	Poison hemlock
Hyoscyamus niger	Black henbane
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

Cynoglossum officinale	Houndstongue

The project area was last inventoried for noxious weeds in 2009. While not officially documented the following non-native invasive weeds probably occur in or around the project area:

Bromus tectorum	Cheatgrass	*Marrubium vulgare*	Horehound
Ceratocephala testiculata	Bur buttercup	*Salsola kali*	Russian thistle
Convolvulus arvensis	Field bindweed	*Sysimbrium altissimum*	Tumble mustard
Halogeton glomeratus	Halogeton	*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 the propose action, the factor rates as Moderate (7) at the present time. Given the concentrated use around capture sites could result in new infestations, specifically at the capture sites and holding pens. Also black henbane is found primarily in Newark Valley. There is a potential for the gather operation to spread this weed into the other valleys in the HMA. However, by removing excess horses, native plant communities should have increased vigor and outcompete with weeds. For Alternative B and C the results would be similar. For the no action alternative, no gather operation would occur to spread weeds, and excess horses would remain on the range, native plants could decrease due to overgrazing and weeds would be more competitive.

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

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

This project rates as Moderate (5) at the present time. The project area has several noxious weed infestations, especially along the main roads and in old fires. New weed infestations could spread to the area and then there would be adverse effects to the surrounding native vegetation. An increase in cheatgrass could alter the fire regime in the area. The potential to spread weeds would be limited primarily to identified areas making follow up monitoring and treatment, if necessary, more manageable.

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 (35). This indicates that the project can proceed as planned as long as the following measures are followed:

- Gather capture 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 **moving to another valley.** 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 or Elko 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.
- Removal and disturbance of vegetation would be kept to a minimum through site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)
- Monitoring of the capture sites and holding pens on public lands 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 and Elko District Noxious and Invasive Weeds Coordinators for treatment.

The Ely and Elko Districts 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.

Until such a time as weed free hay is required, the Ely and Elko Districts encourages the contractor to acquire locally produced hay from the valleys nearest to the project area. Although it may not be required to feed weed free hay, by using locally produced hay it would prevent the introduction of weeds from other areas.

Reviewed by: /s/Mindy Seal 3/31/2011

Mindy Seal
Natural Resource Specialist

/s/Brian Mulligan 3/4/2011

Brian Mulligan
Natural Resource Specialist (Weeds)

Figure 1. Map of Documented Noxious and Invasive Weeds

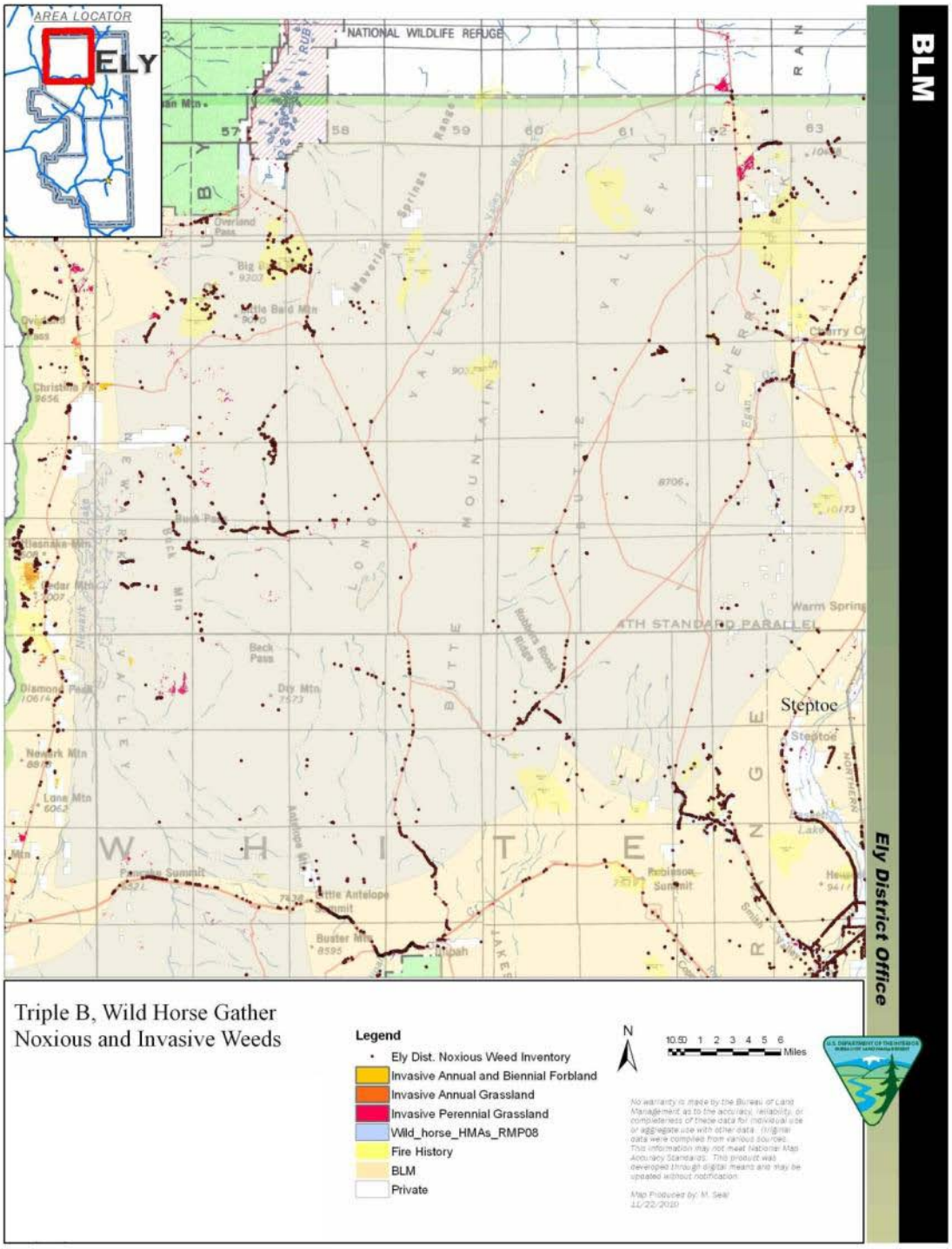
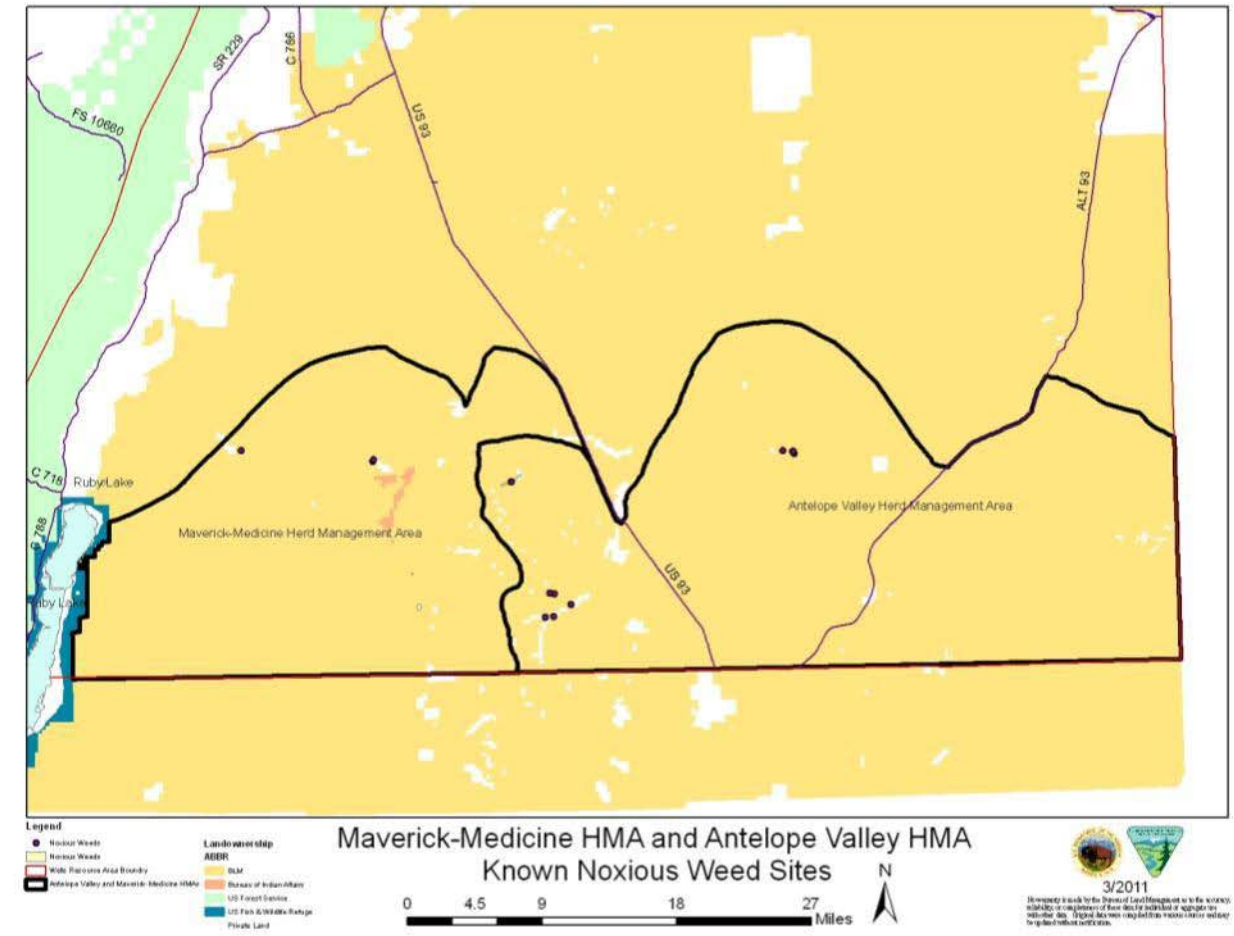


Figure 2 Map of Documented Noxious and Invasive Weeds for Maverick-Medicine and Antelope Valley HMAs



Appendix VII

Daily Visitation Protocol and Ground Rules for the Triple B, Maverick-Medicine, and Antelope HMAs Wild Horse Gather

BLM recognizes and respects the right of interested members of the public and the press to observe the Triple B, Maverick-Medicine, and Antelope Valley HMAs wild horse gather. At the same time, BLM must ensure the health and safety of the public, BLM's employees and contractors, and America's wild horses. Accordingly, BLM developed these rules to maximize the opportunity for reasonable public access to the gather while ensuring that BLM's health and safety responsibilities are fulfilled. Failure to maintain safe distances from operations at the gather and temporary holding sites could result in members of the public inadvertently getting in the path of the wild horses or gather personnel, thereby placing themselves and others at risk, or causing stress and potential injury to the wild horses.

General Daily Protocol

- A Wild Horse Gather Info Phone Line will be set up prior to the gather so the public can call for daily updates on gather information and statistics. Visitors are strongly encouraged to check the phone line the evening before they plan to attend the gather to confirm the gather and their tour of it is indeed taking place the next day as scheduled (weather, mechanical issues or other things may affect this) and to confirm the meeting location.

- Visitors must direct their questions/comments to either their designated BLM representative or the BLM spokesperson on site, and not engage other BLM/contractor staff and disrupt their gather duties/responsibilities - professional and respectful behavior is expected of all. BLM may make the BLM staff available during down times for a Q&A session on guided pubic-observation days. However, the contractor and its staff will not be available to answer questions or interact with visitors.

- Observers are prohibited from riding in government and contractor vehicles and equipment.

- Observers must provide their own 4-wheel drive high clearance vehicle, appropriate shoes, winter clothing, food and water. Observers are prohibited from riding in government and contractor vehicles and equipment.

- Gather operations may be suspended if bad weather conditions create unsafe flying conditions.

- BLM will establish one or more observation areas, in the immediate area of the gather and holding sites, to which individuals will be directed. These areas will be placed so as to maximize the opportunity for public observation while providing for a safe and effective horse gather. The utilization of such observation areas is necessary due to the use and presence of heavy equipment and aircraft in the gather operation and the critical need to allow BLM personnel and contractors to fully focus on attending to the needs of the wild horses while maintaining a safe environment for all involved. In addition, observation areas will be sited so as to protect the wild horses from being spooked, startled or impacted in a manner that results in increased stress.

- BLM will delineate observation areas with yellow caution tape (or a similar type of tape or ribbon).

- Visitors will be assigned to a specific BLM representative on guided-observation days and must stay with that person at all times.

- Visitors are **NOT** permitted to walk around the gather site or temporary holding facility unaccompanied by their BLM representative.

- Observers are prohibited from climbing/trespassing onto or in the trucks, equipment or corrals, which is the private property of the contractor.

- When BLM is using a helicopter or other heavy equipment in close proximity to a designated observation area, members of the public may be asked to stay by their vehicle for some time before being directed to an observation area once the use of the helicopter or the heavy machinery is complete.

- 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.

- Individuals attempting to move outside a designated observation area will be requested to move back to the designated area or to leave the site. Failure to do so may result in citation or arrest. It is important to stay within the designated observation area to safely observe the wild horse gather.

- 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 from participating in any subsequent observation days.

- *BLM reserves the right to alter these rules based on changes in circumstances that may pose a risk to health, public safety or the safety of wild horses (such as weather, lightening, wildfire, etc.).*

Guided Observation Day-Specific Protocol

- A guided 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 number of guided observation days per week, and which days they are, will be determined prior to the gather and will be announced through a press release and on the website. Interested observers should RSVP ahead through the BLM-Ely District Office number (TBD). A meeting place will be set for each guided-observation day and the RSVP list notified. BLM representatives will escort observers on guided observation days to and from the gather site and temporary holding facility.

Non-Guided Observation Day Specific Protocol

- Non-guided observation days are days other than guided public observation days when the public can observe the 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.

- On non-guided-observation days, individuals who arrive at the sites will be directed to the designated observation area by BLM personnel and informed of behavioral rules (such as remaining quiet and still to ensure a safe and effective gather operation).

Appendix VIII

Comments and Responses

A preliminary environmental assessment was made available to interested individuals, agencies and groups for a 30 day public review and comment period that opened on January 6, 2011 and closed on February 7, 2011. Written comments were received from seven individuals, e-mail comments and form letters were received from 11,089 individuals. Comments received after February 7, 2011 were not accepted. Many of these comments contained overlapping issues/concerns which were consolidated into 93 distinct topics. Below is a detailed summary of the comments received and how BLM used these comments in preparing the final environmental assessment.

No.	Commenter	Comment	BLM Response
1.	Individual	While I agree fully that the horse gather is proper and necessary to ensure the long-term health of the land, I am concerned that it might have negative affects in the wilderness area. Please ensure that all efforts are made to limit negative effects of the gather in the Goshute Wilderness Area.	See section 4.6 of the EA
2.	Individuals, American Wild Horse Preservation Campaign	Is devoid of monitoring data, including data that supports the claim that horses are overpopulating the range and/or causing damage for the range. The EA is further devoid of monitoring data that clearly separates the impacts of livestock and wild horse use.	Monitoring data specific to the Triple B, Maverick Medicine, and Antelope Valley HMAs indicates that excess number of wild horses is a causal factor in not meeting rangeland health standards. See Section 3 of the Environmental Assessment. Grazing use by livestock is outlined in section 4.5
3.	Individuals, American Wild Horse Preservation Campaign	Fails to consider the fact that horses utilize the environment, including stream riparian areas, very differently from cattle	See section 4.2
4.	Individuals, American Wild Horse Preservation Campaign	Fails to provide adequate information about water sources on the range	See section 4.1 and 4.2
5.	Individuals, American Wild Horse Preservation Campaign	How fencing and engineering of wells and springs for livestock grazing has impacted water availability for wild horses and other wildlife species.	Outside the scope of the document

6.	Individuals, American Wild Horse Preservation Campaign	Omits any information about fencing within the HMAs, including of the impacts of existing fencing on wild horses	Fencing does exist within the HMA but are open at the end of the fence and do not restrict wild horse movement throughout the HMA.
7.	Individuals, American Wild Horse Preservation Campaign	Fails to consider a reasonable range of alternative actions. Components of the alternatives examined are very similar. BLM discarded viable alternatives, and did not take the required "hard look" at those it did consider.	NEPA directs the BLM to "Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involve unresolved conflicts concerning alternative uses of available resources…" (NEPA Handbook 1790-1 page 49) BLM believes that it has included a reasonable range of alternatives (CEQ, Forty Most Asked Questions Concerning CEQ's NEPA Regulations, March 23, 1981) By law, BLM is required to manage wild horses to achieve a thriving natural ecological balance and multiple use relationship on the public lands and to remove excess immediately upon a determination that excess wild horses exist. See section 1.2 of the Environmental Assessment. An analysis of the environment impacts of the proposed action and alternatives is in section 2.0 of the EA.
8.	Individuals, American Wild Horse Preservation Campaign	Fails to adequately assess the harmful impacts of stampeding horses—including the elderly, ailing and young foals—in the heat of the summer in the desert. No alternative was considered for conducting the capture operation at a safer time of year, when temperatures are cooler and foals are older.	See section 4.1 of the EA. A Veterinarian will be on site at the gather to observe and evaluate animal health, provide recommendations to the BLM gather staff and COR. Refer also to the SOPs in Appendix II. All precautions are taken to ensure that wild horses are gathered safely during the summer months or at any other time of year that the wild horses might be gathered.
9.	Individuals, American Wild Horse Preservation Campaign, The Cloud Foundation	Fails to provide any scientific justification for the plan to return horses to the range in a 60-40 male/female sex ratio, including analysis of the	See section 4.1 of the EA

		impact on wild horse behavior, welfare and reproduction.	
10.	Individuals, American Wild Horse Preservation Campaign	Decreasing or eliminating livestock grazing in affect HMAs pursuant to 43 C.F.R. 471.5 (a); and Designating such area to be managed principally for wild horse herds under 43 C.F.R. 4710.3-2	By law, BLM is required to manage wild horses in a thriving natural ecological balance and multiple use relationship on the public lands and to remove excess immediately upon a determination that excess wild horses exist. BLM cannot use regulations at 43 CFR 4710.5 to manage wild horses and livestock in a manner that is inconsistent with the RMP. A land-use plan amendment or revision would be necessary to reallocate use in this manner between livestock and wild horses. Standard Determination Documents have been completed for most of the allotments within the HMAs and have identified wild horses as a contributing factor in not meeting the standards for rangeland health.
11.	American Wild Horse Preservation Campaign	Re-evaluating and increasing wild horse AMLs by reassessing and amending plans under BLM's Adaptive Management Policy (established by Interior Secretary Order NO. 3270, March 9, 2007)	See section 2.7 AMLs were established through prior separate decision-making processes. See Sections 1.1, refer to the purpose and need section 1.2. Available data confirms that wild horse numbers are currently in excess of the level at which a thriving natural ecological balance can be maintained and the data does not support an increase in the wild horse AMLs.
12.	American Wild Horse Preservation Campaign	The EA has failed to establish that: • An overpopulation of wild horses exists; • The low AML's are appropriate for this 1.7 million acre public land	Data currently available to BLM shows that excess numbers of wild horses are present in the HMAs and that this overpopulation of horses is adversely impacting forage and water resources. See Section 1.1

		area • There is an appropriate and fair distribution of resources between livestock, wild horses and other wildlife species in these federally-designated Herd Management Area. • The removal of horses is necessary and goals cannot be accomplished through alternatives for on-the-range management of wild horses – measures which the BLM has not implemented	The AMLs for Maverick Medicine and Antelope Valley HMAs were established through Final Multiple Use Decisions (FMUDs) issued by the Elko District following completion of Allotment Evaluations or Rangeland Health Assessments and EAs. The AML for the Triple B HMA was established through an in-depth analysis of habitat suitability and monitoring data as set forth in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement, Table 3.8-2 and Page 4.82 (2007) These AMLs were established following the collection, analysis, and interpretation of many years of monitoring data, which included precipitation, use pattern mapping, trend, production, census/inventory, and carrying capacity analysis, and following a public decision-making process. The monitoring methods used are well established and documented within the Technical References used by the BLM as well as other land management agencies for vegetation monitoring and assessment. Though it would simplify the process; the BLM cannot apply an equation of "X" number of horses per acre when establishing AML. Under Dahl v. Clark (600 F. Supp. 585 Dist. Ct. Nev. 1984), the BLM is required to base AML and removals on "analysis and studies" and per numerous Interior Board of Land Appeals rulings a monitoring program includes studies of grazing utilization, trend in range condition, actual use and climatic factors.

			Rangeland Health Assessments have been completed for most of the allotments within the project area and have found wild horses as a contributing factor in not meeting the Standard. An AML range was established for the HMAs, where the upper number represents the maximum population for which thriving natural ecological balance would be maintained. The lower range represents the number of animals to remain in the HMAs following a wild horse gather in order to allow for a four year gather cycle and prevent the population from exceeding the established AML between gathers. *"We interpret the term AML… to mean that "optimum number" of wild horses which results in a thriving natural ecological balance and avoids a deterioration of the range"* (109 IBLA 119 API 1989). Monitoring since establishment of the AMLs indicates that these AMLs continue to be valid and no data exists to indicate that increases to the AMLs are warranted at this time.
13.	Individual	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.	While BLM will admit that 100% accurate counts are nearly impossible, the same can be said about all wildlife species. However, BLM is using scientifically accepted inventory methods that have been used by wildlife management agencies around the world for surveying wildlife populations and implements measures designed to reduce the likelihood of double-counting the same animal. Wild horse inventories are more likely to undercount the actual number of horses than to over-count.

14.	Individuals	BLM contends that HMAs and WHT in question, which encompass 1,682,998 acres, can support a maximum of just 889 wild horses. This figure is presented as the high end of the AML and equates to approximately one horse for every 1,893 acres. However, BLM intends to reduce the herd much more severely, leaving only 472 horses on the range, which equates to one horse for every 3,566 acres. Surely the land can sustain more horses than these figures suggested.	See comment 12
15.	Individual	The EA reveals that authorized livestock grazing units (animal unit months or "AUMs") for the Project Area are 8-to16 times the number of allocated wild horse AUMs. What's more, the livestock AUMs are currently under-utilized. The latest data show 42,389 *un* used cattle AUMs out of the 88,978 authorized. The average level of actual livestock usage is 46,589 AUMs. The 42,389 *un* used AUMs could accommodate 3,532 additional wild horses without disadvantaging livestock one bit. The mustang herds could grow to a more realistic AML of 4,004 to 4,421 wild horses. There would be no need for gathers and removals now or for some time to come. Immediate savings of tax dollars would be realized by not conducting a roundup, and ongoing savings would be achieved by not placing any more horses in long-term holding.	Please see comment 10. Even with livestock grazing use at less than the permitted levels, monitoring data shows impacts to vegetative and riparian/water resources from an over-population of wild horses.
16.	Individual	BLM apparently has known about these "outsiders" for some time yet had done nothing. Why has BLM been negligent? Why was no effort made to shoo the	BLM, because of other management needs, cannot continuously address non-HMA animals but make attempts to deal with these animals with the next gather

		horses back into the HMAs?	operations when it is more logistically appropriate. We will take action when the non-HMA animals are creating a nuisance on private lands, impacting habitat, or creating safety problems. Hazing horses that have taken up residency outside HMA boundaries will not permanently keep those horses within the HMAs, as the hazed horses return to their "home range" outside the HMA boundaries shortly after the hazing so it is not effective. Majority of movement out of an HMA is forage, water, space and population size related so the vacuum idea only may be supportable because of too many animals in the HMA already and limited resources.
17.	Individual	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 handles 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 as well as horses outside the HMA so that there would then be a need for a roundup. The potential conflict pertains to the incentive to increase revenues by providing two different billable services.	Outside the scope of the document. 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 and other members of the flight to count the horses using the chosen technique not the aviation pilot.
18.	Individual	The PZP drug does not prevent ovulation and does not change mare behavior toward stallions. This is not good. It results in repeated, stressful, futile breedings of the mares and ongoing battles among stallions. Out-of-season pregnancies and births can occur due to the wearing off of the drug at	After 20 years of treating the ASIS mares, there is still no evidence of altering behaviors. Powell (1999), which reports on a study done by researchers from the National Zoological Park/Smithsonian. They found no behavioral effects, at that time, after almost eight (8) years of PZP treatment. The same results were reported in

		inopportune times. Foals born at the wrong time of year may not survive, and the mares' health may be endangered as well. Finally, there are reports of mares treated with PZP becoming masculinized, a phenomenon that occurs for reasons yet unknown. This is another cause for extreme caution in using the drug and for sponsoring research to develop a better fertility control.	several of the Assateague Island papers, including (1) Kirkpatrick 1995, and (2) Kirkpatrick et al. 1995. Also, other studies (Fayrer-Hosken et al. 2000; Delsink et al. 2002) showed a lack of behavioral effects of this same vaccine on free-roaming African elephants, which have an even more complex social order than wild horses. Casual observation of wild horses proves nothing. For example, casual observation has reported that Pryor horses travel less than ASIS horses, but that has no scientific significance.
19.	Individual	The PZP contraceptive is not without risk and can have unintended consequences	Please see comment 18
20.	Individual	It should not be given to fillies under two years old and never administered for more than five years consecutively	See comment 18
21.	Individual	BLM performed simulation trials using a population modeling software program. However, this tool is only as good as the data plugged into it and the validity of the assumptions used. Given the weakness of the input data and the limitations of the program's default settings, the projections provide little more than Potemkin numbers – proofiness without proof. Such projections do not pass muster and thus, do not justify BLM's decision to severely reduce the herds population. Instead, they serve as scare tactics to falsely portray the need for a gather. BLM's methodology is faulty and must not be trusted.	The WinEquus population model is a tool to assist wild horse and burro specialist evaluate various management plans and display the possible outcomes for management of wild horses. The model displays the relative outcome for the proposed management alternatives for the project area.
22.	Individual	Roundup Spreads Weeds, Raise Fire Risk	See section 4.7 of the Environmental Assessment
23.	Individual	BLM proposes to remove	See section 4.1 of the EA

		1,726 mustangs from the project area. Again, using BLM's count, right now there are about 1,527 adults and 305 youngsters who will be yearlings by the time of the proposed roundup, for a total of 1,832. The 366 unborn foals of 2011 – if that many materialize – will only be between one and four months old at the time of the gather in July (most will be tow-to-three months of age – per BLM's data, the peak period for foal births is mid-April through mid-May). Thus, BLM is actually targeting for removal 94 percent of the population that may rightfully be included in the AML as of July 2011 (the 1,832). Removing 94 percent of a population is a drastic measure, and one that is not supported by evidence contained in the EA.	
24.	Individual	Riparian Areas -- Protect them by Developing Alternative Water Sources	Outside the scope of the document. BLM must get necessary regulatory permits and authorization from the State Water Engineer to develop alternative sources and they are not always granted.
25.	Individual	Rain and snow catchment devices, commonly referred to as "guzzlers," should be strategically installed throughout the Triple B et al HMAs.	Guzzlers require extensive maintenance to keep them functioning properly and have to be placed in areas that receive adequate moisture. Being the driest State in the Union, guzzlers would only be able to supply a small portion of water needs.
26.	Individual	BLM restricts access to its roundups by allowing just a limited number of witnesses who must be escorted by BLM staff and are allowed in by reservation only.	Some restrictions on public access or proximity to gather operations may be necessary to ensure human and wild horse safety. Please see section 4.10 and Appendix VII
27.	Individual The Cloud Foundation	Equine digestive waste disperses the seeds of the greases on which horses feed, thereby replenishing	No documentation to support this assumption is available through the existing body of research.

		desirable forage as they roam.	
28.	Individuals	Yet the proposed action includes only removing wild horses; no reduction in sheep and cattle grazing is proposed.	See section 2.7
29.	Individuals	These livestock grazers have a total of currently permitted livestock Animal Unit Months (AUMs) of 88,978 on a year round basis. Since the current wild horse population is 2,198, there are 26,376 AUM's (2,198 x 12 months) currently being utilized by wild horses in the complex. This represents a little less than 30% of livestock AUM's and only 23% of the total livestock plus wild horse AUM's of 115,354. This is not an overwhelming percentage and in no way constitutes the "principal" in these HMAs as required by the law, but unsatisfied with this your plan is to reduce the herds to the lower end Appropriate Management Level (AML) of 472 wild horses. This figure of 472 represents 5,664 AUM's per year, which is only 6.4% of permitted livestock AUM's and a little under 6% of combined livestock and wild horse year round AUM's. The upper end of the AML is 889, which multiplied by 12 months equals 10,668 AUM's per year. This is still only about one-ninth of livestock within the wild horse complex … even less of the combined.	See comment 10 and 12
30.	Individual	The EA does not include the parameters that the BLM will use to determine which horses will be returned – if any.	See section 2.2 in the EA
31.	Individual	BLM states the "total number" of wild horses on these HMAs but the EA	See section 4.1 in the EA

		does not give a detailed report of the BLM's most recent (pre-gather) census.	
32.	Elko County Board of Commissioners	The Elko County Board of Commissioners supports the proposed action.	Comment Noted
33.	Friends of Nevada Wilderness	We support eh gather as proposed	Comment Noted
34.	Nevada Department of Wildlife (NDOW)	NDOW supports the Bureau of Land Management's Proposed Action/Alternative A as the best method to bring the wild horses in the given HMAs back into Appropriate Management Levels (AML).	Comment Noted
35.	NDOW	NDOW further supports BLM's efforts towards stabilizing population growth rates and remaining within the AML through fertility control.	Comment Noted
36.	NDOW	However, based on the above reasoning NDOW would recommend that all following gathers occur in the November – February time-frame when PZP-22 is most effective	Comment Noted
37.	NDOW	Additionally, we believe that a formal monitoring plan to evaluate the effectiveness of the contraceptive PZP-22 would be beneficial for future management decisions.	The ELDO and EYDO will continue to conduct aerial inventories on these HMAs as annual budget allows on an annual or biennial basis. The foal to adult ratio data collected during these inventories will be compared to pre-treatment data to help determine degree of effectiveness of the treatment. Should NDOW have a monitoring plan that would be more effective, the BLM would welcome the assistance from NDOW to develop and sponsor a monitoring plan for this area.
38.	The Cloud Foundation	How was the low-point appropriate management level of 472 wild horses decided upon?	See response to comment 12
39.	The Cloud Foundation	The EA contains no discussion of the harmful effects of social disruption and destruction of family	See section 4.1 of the EA

		bands, or the expected deaths of horses in holding facilities due to effects of capture-related trauma and stress.	
40.	The Cloud Foundation	The Preliminary EA also fails to clarify the specifics of the mortality rates of the animals in holding. "Mortality at short-term holding facilities averages approximately 5% including animals euthanized due to a pre-existing condition, animals in extremely poor condition, animals that are injured…."	Outside the scope of the document
41.	The Cloud Foundation	The HMA's in question are on public land which was designated by congress *principally though not exclusively* for wild horses	See Response to Comment 9
42.	The Cloud Foundation	This EA fails to provide a scientific basis or rationale for the decision to remove such a large number of horses.	AMLs were established through prior separate decision-making processes. See section 1.1 of EA
43.	The Cloud Foundation	It would make more sense to pay the permittees who have been given grazing permits within the HMAs, not to graze on the public lands and leave wild horses on the Triple B, Maverick-Medicine, and Antelope Valley Public lands in greater number	Outside the scope of this document and BLM lacks the legal authority to pay permittees not to graze
44.	The Cloud Foundation	Has the option of reducing livestock AUMs been given any consideration?	See section 2.7
45.	The Cloud Foundation	This Preliminary EA fails to evaluate the social, economic and legal impacts of the warehousing of the majority of captured horses in holding facilities, where they will join the 40,000 wild horses already warehoused at taxpayer expense.	Outside the scope of the document
46.	Individual	As a result of this active and extensive involvement, several serious concerns have arose helicopter	Please see section 4.1 of the EA. Also, BLM is always striving to be more effective in humane treatment to wild

		driving of wild horses/burros that have included: Unknown distances animals are driven with evidence supporting distances are often too long for old, young and disabled animals and show evidence of driving animals to exhaustion and/or collapse. Proximity of the helicopter and skids, which at times actually "nudge", physically push and on occasion, physically flipped the animals off their feet. Extreme temperatures that include both hot and cold Excessive dust causing respiratory conditions that have sometimes resulted in sickness and death. Large numbers of aborted foals in pregnant mares recorded after being helicopter driven. Failure of BLM to track or record foal deaths that fail to survive until they can be freeze branded and incorporated into the adoption system Capture myopathy of animals. Inappropriate trap site placement, panel placement and failure to incorporate panel systems that protect wild horses/burros from breaking their necks due to charging the panels in an attempt to escape Over-driving and over-crowding animals into corral systems or during loading for transport by	horse and burros. BLM currently follows the Standard Operating Procedures (SOPs) See Appendix II of the EA. Also, 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 and burros see section 7.0 Also, is addressed in the Wild Horse and Burro Program Strategy Development Document (February 28, 2011) Which is currently out for public review.

		contractors. Ineffectiveness of BLM or the authorized officers to reprimand contractors for harassment, inhumane treatment or inappropriate actions that result in animal mortality. Contractors and/or BLM personnel actively engaged in activities that seek to hide inhumane treatment, cruelty, or death being witnessed or documented by the public, media and/or wild horse/burro advocates.	
47.	Individual	To improve public opinion of the BLM I suggest you open the round ups you conduct to public observers	BLM recognizes and respects the right of interested members of the public to observe the wild horse gather. Please see Appendix VII of the EA.
48.	Individual	The method used to count existing horses is not a real count, but a projected count by a computer that comes up with one number but humane intervention changes that number inconsistently and without a formula that is accurately duplicated in the actual herd counts.	See comment 13
49.	Individual	The 20% reproduction rate is not accurate across the board.	Wild horses on public lands have an average growth rate of 18-25% with a national average of 20%
50.	Individual	What steps have the BLM taken to improve the range to meet their needs	Outside the scope of the document. Standard Determination Documents which have been completed for most of the HMAs have identified habitat needs and concerns.
51.	Individual	Please identify and quantify wild horse specific destructive impacts which are separate from other grazing uses, both livestock and wildlife? What is the significance of these impacts in comparison with all other uses?	See comment 2
52.	Individual	Are the designated for all of these HMA's consistent	See section 4.1 of the EA

		with their 1971 free roaming ranges?	
53.	Individual	Please will you provide me with the original inventory and maps that determined the RMP? What additional information has come to your attention that would qualify for an RMP amendment?	Outside the scope of this document
54.	Individual	I noted maps of important seasonal areas for other wildlife and saw no maps indicating herd areas, or did I overlook them?	See Map 1 in section 1.1
55.	Individual	What is the selective removal ratio of other species, livestock, wildlife, and uses?	See section 2.7 of the EA. Wildlife is monitored and controlled through the Nevada Department of Wildlife.
56.	Individual	How exactly do you count the wild horses?	See comment 13
57.	Individual	How many horses have died from the roundups?	See section 4.1 of the EA
58.	Individual	This round up fails to consider the effects it will have on family bands of horses and the horses that are left behind potentially separated from their group, the injuries and deaths that occur as a result of these cruel and unnecessary round ups.	See section 4.1
59.	Individual	Wild horses add great beauty to our landscape and have the potential to create eco tourism	Outside the scope of the document. Eco tourism is being addressed in the Wild Horse and Burro Program Strategy Development Document (February 28, 2011) which is currently out for public review.
60.	Individual	The genetic viability of herds requires diversity, and diversity requires sufficient population. Removing a sizable portion of the population – even if no fertility control is applied – only means more of a smaller genetic pool later.	The lack of physical boundaries between the HMAs allows regular interchange and movement of horses, thereby ensuring sufficient genetic diversity. 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 healthy populations, especially where the habitat conditions are a

			limiting factor to wild horse population size. Also is addressed in the Ely Proposed Resource Management Plan/Final Environmental Impact Statement page 4.8-3
61.	Individual	The National Academy of Science's study needs to be completed and assessed before you continue with any round-ups.	Outside the scope of the document. The National Academy of Science's study is addressed in the Wild Horse and Burro Program Strategy Development Document (February 28, 2011) which is currently out for public review.
62.	Individual	Do you have any idea how many livestock AU's have been leased on the Antelope and Triple B range? Do you have any estimates of the numbers of cattle taking valuable forage and water resources away from protected wild horses on the range during difficult winter months?	See section 4.5 of the EA for livestock information
63.	Individual	Where are the legit BLM's stats for rotating fields and pastures on public lands? Why doesn't the BLM rotate the pastures and fields on public lands	Outside the scope of the document. BLM manages wild horses under a free roaming nature and not as intensively as domestic livestock.
64.	Individual	Where is the BLMs legit evidence that the wild horses have trampled bushes?	See section 4.1 of the EA for monitoring data
65.	Individual	Why is the BLM restricting the Wild Horse from being what they were created to be,, wild horses?	Outside the scope of the document. BLM's management of wild horses is governed by the WFRHBA.
66.	Individual	Where is the BLMs legit evidence that horses defecate/urinate in the creeks, streams, and/or rivers?	Outside the scope of the document
67.	Individual	Where is the legit evidence from the BLM studies that the presence of horses and/or their natural activity has eroded any rivers, streams, or creeks?	Outside the scope of the document
68.	Individual	In stark contrast, it has been and is still being	Outside the scope of the document

		documented that the other ranches and farms that deal in livestock (mainly cows/bulls), have seriously eroded the creek due to their destructiveness, which upsets the balance of the ecosystem and environment. Where are the BLM legit studies and evidence that proves differently where the wild horses are concerned?	
69.	Individual	Where are the legit BLM studies and evidence that proves differently where wild horses are concerned in comparison to the livestock on the same land?	Outside the scope of the document
70.	Individual	In stark contrast, whether wild or domesticated, vast studies have shown that horses are opposite in environmental behavior and preservation than livestock. Where are the legit BLM studies and evidences to prove otherwise? Why would the BLM want the ecosystem and environment of our public lands destroyed by livestock when it has been proven that livestock destroy the land? Why would the BLM want the Wild Horses rounded up and destroyed when it has been proven that the Wild Horses help to preserve the ecosystem and environment?	See section 4.1 of the EA. BLM does not destroy healthy excess wild horses gathered from the public range.
71.	Individual	Would like a legitimate explanation as to why the BLM is breaking Federal laws and getting away with it?	The BLM has examined current information and on the basis of that information determined that excess wild horses exist and the WFRHBA requires that these excess horses be removed. Refer to EA section 1.2
72.	Individual	Why is the BLM allowing livestock to destroy the public lands against the wishes of the public who owns said lands?	See section 2.7 of the EA. BLM is required to manage the public lands for multiple uses, including livestock grazing.
73.	Individual	If at all possible, horses should not be roped or tied down in a recumbent	See Standard Operating Procedures (SOPs) Appendix II

		position for prolonged periods of time, especially coinciding with exhaustive or over heated conditions. Excessively aggressive horses (studs or mares) should be isolated as soon as possible or grouped with horses they were with before capture (i.e., a harem stallion with his foals or dry mares) rather than stand waiting in the shuts or alleyways. Another suggestion is to make the chute progressively darker (tighter woven snow fence over the course of several dozen feet) Consider widening gate areas leading to chutes/alley to afford more than one horse to move on. Work more slowly even in rescue scenarios. Thick padding should be placed on the rails above the gates (overhead) Horses held in any enclosure over 4 hours after the gather at the trap site should be provided with access to hay and water in at least 100 gallon containers unless the horses are seriously dehydrated or compromised and, in the opinion of a veterinarian, should have restricted access to reduce the risk of water intoxication.	
74.	Individual	Public observers and increased BLM personnel should be limited in the number, activity and proximity to the trap site in order not to hinder the least resistant pathway of movement and minimize the distance travelled of horses	See Standard Operating Procedures (SOP) Appendix II and Daily Visitation protocol and ground rules for the wild horse gather Appendix VII

		into the trap area necessary for a successful gather. Prohibit parked vehicles in direct sight of horses moving toward the trap site and corrals. Consider instituting a lottery system to limit the number of public observers in order to ensure that distractions to horses being gathered to allow for the safe handling of the animals as they move toward the trap site and corrals	
75.	Individual	Please present in the Final EA any changes by Congress in the Wild Free Roaming Horse and Burro Act of 1971 that states that the BLM has the right to give more AUMs to livestock and wildlife as well as all other uses in HMA's that justifies you allowing livestock and wildlife and other uses to preside over HMAs for the wild horse thus starving it out of its permitted area?	By law, BLM is required to manage wild horses in a thriving natural ecological balance and multiple use relationship on the public lands and to remove excess immediately upon a determination that excess wild horses exist. The Federal Land Policy and Management Act of 1976 As Amended defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balance and diverse resources uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife, and fish, and natural

			scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output. Definition of the term "sustained yield" means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consist with multiple uses.
76.	Individual	How can BLM deprive horses of their AMLs while giving bigger allowances for cattle and sheep for the year?	See comment 12 and section 2.7 of the EA
77.	Individual	Please justify in the Final EA how BLM can allow for the taking of extreme water usage for other uses on public land yet can deprive the wild horses its natural use of water calling it environmentally damaging to waterholes in its HMAs?	See section 4.1 of the EA BLM does not deprive wild horses of water.
78.	Individual	Please address in the Final EA what livestock and wildlife take from the HMAs in terms of water usage that if minimized would create less stress on waterholes that horses must use within their given HMAs?	See comment 77. Livestock stocking levels and management practices are authorized in accordance with term permit. Many of these allotments have man-made wells and water haul sites that provide water for livestock.
79.	Individual	Please evaluate in the Final EA the use of Streiter Light Reflectors, the taking down of fences and allowing movement for wild horse herds to re populate their HMAs instead of shrinking them down to genetically dangerous sizes as BLM is	Outside the scope of the document. Fences do not restrict the movement of wild horses between the HMAs as discussed in section 4.1 of the EA.

		now doing	
80.	Individual	Horses have been out there wild for a long time, why do they have to be slaughtered?	BLM doesn't send any wild horses to slaughter. See section 4.1 of the EA
81.	Individual	Livestock impact on range efficiency, within the HMAs, must also be considered under 'multiple use' if the competitive relationship between livestock and Wild Horses is to be a published additional reasoning for removal of 'excess' wild horses; 82% of these resources are allocated on a seasonal basis to livestock while the remaining 18% is the year-round allocation for wild horses.	Outside the scope of the document. The allotment evaluation process has been completed for most of the livestock grazing within the Triple B and Maverick-Medicine HMAs. This process evaluated grazing use by livestock and wild horses based on monitoring data analysis and interpretation. The terms and conditions of the livestock term permits were reviewed. Terms and conditions were modified as needed to ensure that grazing management practices or levels of grazing use were in conformance with allotment objectives or in conformance with the approved Northeastern Great Basin Area Standards and Guidelines. Also see pg 4.8-2 of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement.
82.	Individual	Calculations based on the numbers provided in the EA, from the inventory in 2006 to the inclusion of foaling rates through 2011 show the population increase at 260.4% in the five year span since the last gather, or 52.8% per annum. This presents as flawed, not only in reproductive capability but in the population modeling and the accuracy of the aerial census as well. The following table utilizes an average of 21.5% per annum, based on estimated increases of between 18% to 25% and incorporates an 8% mortality rate:	The combined area was last gathered in 2006 with a post-gather estimated population of 610 wild horses. An aerial direct count population inventory of the project area in July 2008 observed 1,139 adult wild horses. A recent November 2010 aerial direct count inventory of the combined area observed 1,832 wild horses. See section 1.1 and 4.1 of the EA
83.	Individual	WinEquus modeling, while convenient, not only creates errors in terms of continuity	See comment 21

		and longevity but an inference of permanence: Every mare becomes pregnant, every pregnancy is carried to term and every Horse born lives in perpetuity. It simply does not account for on-the-range mortality nor translates that into reliable statistical information	
84.	Individual	While foals are not included in AML, their numbers are included in overall population data, creating a prejudicial sense of overpopulation. As they are limited in their use of forage in the first year of life, their numbers should not be included in terms of overpopulation or range degradation. A foal, in that first year, simply would not require 6067 acres of sustenance.	Foals will be removed with their mare; therefore are included in the overall population number for wild horses to be removed. The goal is to get to an adult population of 472 wild horses remaining on the range
85.	Individual	Of concern, also, are restrictions to genetic diversity in Antelope Valley West and Cherry Springs. On their own, these two areas, at 16-27 and 40-68 animals respectively, could be at risk in the future for genetic collapse, falling far below the accepted parameters for genetic diversity, of 150 animals	Please see section 4.1 of the EA
86.	Individual	For the Antelope Valley, Couldn't you leave that one alone? AML has a max of 27 and you've counted 28	See section 1.2
87.	Individual	Also, Be mindful of the weather and please don't run them too long where they could be hurt	See section 4.1 and the SOPs of the EA
88.	Individual	Federal law says you shouldn't pursue the horses using any motorized vehicle	The Federal Land Policy and Management Act of 1976 as amended "Sec. 9. In administering this Act, the Secretary may use or contract for the use of helicopters or, for the purpose of transporting captured animals, motor vehicles. Such use shall be undertaken only after a public

			hearing and under direct supervision of the Secretary or of a duly authorized official or employee of the Department."
89.	Individual	Around the nation other private horse herds have been controlled using a fertility dart which is shot at the mare, not even requiring any physical contact with the horse, and usually each mare is allowed to give birth to one foal during her lifetime. This is the only method I would approve of, to leave all herds intact and start this fertilization treatment	Outside the scope of the document. While darting of mares may be appropriate and feasible on some private confined herds it is not practical on the majority of the public land HMAs as one cannot adequately approach the mares to dart them. It is very labor intensive and unlikely to succeed on a consistent basis.
90.	Individual	Look into natural boundaries, predators, buffer zones. etc., as part of an effective Reserve Design concept	Natural predation is not an effective method for controlling the wild horse population. See 2.7 of the EA The lack of physical boundaries between the HMAs allows regular interchange and movement of horses.
91.	Individual	Are you taking into full account all these natural factors that you should when providing for a integrated wild-horse-containing ecosystem that provides for a truly long-term genetically viable population?	See section 4.2
92.	Individual	Is this in harmony with the true intent of the Wild Free Roaming Horses and Burros Act of 1971?	See section 1.2