From: Frolli, Tom -FS
To: Turner, Ed
Cc: Rhoades, Teresa -FS; Genevieve Skora; Lara Juliusson
Subject: RE: GRSG USFS Wild Horse Territory questions
Date: Thursday, March 26, 2015 6:27:33 PM
Attachments: image001.png
image002.png
image003.png
image005.png
image006.png
image007.png
image008.png
image009.png
Map_TripleB_Complex_CherrySpringWHT.docx
Triple B Complex AMLs.docx
TripleBPrelimEA.pdf

Ed,

Q: My question is, will this red area take the values of the BLM Triple B?

A: Yes, it is a BLM value. I believe this was a small tract that was transferred from FS to BLM. See the attached map from the Triple B EA

Q: Additional question: What about the green area. Right now the green USFS Cherry Spring only area would be considered "Within AML", if you look at the numbers.
If it truly is inclusive with the BLM Triple B, then the numbers for the green area should change and then it will classify with Triple B, as "Over AML".

A: For gathers it has been included as part of the Triple B Complex. However, for Cherry Spring WHT I believe that they have kept a separate stand-alone AML for the Cherry Springs WHT. It is **not** inclusive. **Consider Cherry Spring as independent of Triple B.** See the table from the 2011 Triple B EA and compare it to what BLM is showing. You would think we are consistent in our approach to Joint Management Areas across the BLM and FS programs but unfortunately, we are not.

Tom

Tom Frolli, Inter-Regional Coordinator
Wild Horse & Burro Program
Forest Service
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1200 Franklin Way
Sparks, NV 89431
www.fs.fed.us

Caring for the land and serving people

From: Turner, Ed [mailto:ed_turner@fws.gov]
Sent: Thursday, March 26, 2015 11:40 AM
To: Frolli, Tom -FS
Cc: Rhoades, Teresa -FS; Genevieve Skora; Lara Juliusson
Subject: Re: GRSG USFS Wild Horse Territory questions

Hello Tom, I have additional questions about Cherry Springs and Triple B.

Cherry Springs is listed as Joint Management with BLM Triple B. From the map you can see the green area is all USFS, and the tan area is all BLM. The red area is overlap of BLM and USFS.

My question is, will this red area take the values of the BLM Triple B?

Additional question: What about the green area. Right now the green USFS Cherry Spring only area would be considered "Within AML", if you look at the numbers.
If it truly is inclusive with the BLM Triple B, then the numbers for the green area should change and then it will classify with Triple B, as "Over AML".

In other USFS to BLM cases, I have not worried about adjusting USFS or BLM numbers from what was provided, if the two areas both classed as over or within. I would simply retain numbers listed in the BLM or USFS table, as I have no way of knowing which agency is the lead on the area and which to adjust numbers to. Unless we deal with them on a case by case basis, like we are doing with these in question thus far.

Problem with this area is, the USFS and BLM numbers would put each portion in different AML class (Over or Within). This isn't a problem if only the Red area is considered part of Trible B. and the Green area is just USFS Cherry Springs independent of the other.

Can you help clarify this.

Thanks, Ed

On Thu, Mar 26, 2015 at 8:04 AM, Frolli, Tom -FS <tfrolli@fs.fed.us> wrote:
Ed

Sorry, one last note on Hickison WBT. In 2013 the Forest Service corrected the boundary and it better corresponds with the BLM HMA. It does not appear that the H-T NF layer we provided you had that correction. Please see the attached PDFs that show the new boundary for the territory portion.

Tom

Tom Frolli, Inter-Regional Coordinator
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Caring for the land and serving people

From: Turner, Ed [mailto:ed_turner@fws.gov]
Sent: Wednesday, March 25, 2015 6:04 PM
To: Frolli, Tom -FS
Cc: Genevieve Skora; Lara Juliusson
Subject: Re: GRSG USFS Wild Horse Territory questions

Thank you Tom,

I will classify Murphy Wash as abolished, keeping the polygon in the data. The abolished code will preclude us from ever using it.

I will re-class Burro with the BLM Hickison and make sure the USFS polygon for Hickison matches BLM values.

I will keep Powell Mountain in as Active and classify it as "Within AML". Because at present the AML is considered below the Max limit.

Thanks again and I have some questions about Cherry Springs / Triple B, but will make a map and get my question worded better in the morning.

Thanks again, Ed

On Wed, Mar 25, 2015 at 5:53 PM, Frolli, Tom -FS <tfrolli@fs.fed.us> wrote:
Q: Can you help with territories named “Murphy Wash” and “Burro”. Both are in Nevada, but they are not listed in the table you provided nor do they have BLM listed values in the BLM table.
A: Murphy Wash lands were transferred from FS to BLM in a land exchange. It was abolished by BLM. FS changed “Burro” to “Hickison” to be consistent with BLM.

Q: Powell Mountain, min = 29, max = 29, and 2014 Est = 0. It was classifying this area as “Possibly Inactive”, but like Stone Cabin, Seven Mile, etc. I figured it would take some other records value.
A: There are horses associated with Powell Mountain. They have moved off the territory due

to lack of water so it is currently zero but for now we are keeping its status as active. It is not currently joined with any BLM HMA. We are flying Powell and Garfield soon to sort out what is going on. Yes, keep those values for now.

Thanks for sticking with it, Ed

Tom Frolli, Inter-Regional Coordinator
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From: Turner, Ed [mailto:ed_turner@fws.gov]
Sent: Wednesday, March 25, 2015 5:27 PM
To: Frolli, Tom -FS
Cc: Genevieve Skora; Lara Juliusson
Subject: GRSG USFS Wild Horse Territory questions

Hello Tom, I wanted to ask a few more questions about the Territory data.

I've almost completed the combination of the USFS and BLM data and I ran into a few issues. Can you help with territories named “Murphy Wash” and “Burro”. Both are in Nevada, but they are not listed in the table you provided nor do they have BLM listed values in the BLM table.

Also, I don’t know what to do with the territory named “Powell Mountain”. The table list min = 29, max = 29, and 2014 Est = 0. I was classifying this area as “Possibly Inactive”, but like Stone Cabin, Seven Mile, etc. I figured it would take some other records value. The issue is this area sits off by itself, unlike the others. The closest area to this territory is the Garfield Flat area. Do you think those values are the ones I should use?

Again, thank you for all your assistance with this data effort,
Ed

--
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Carlsbad, CA 92008

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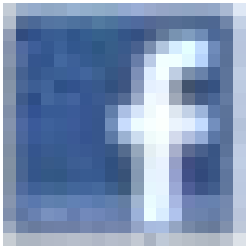

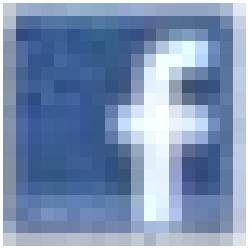

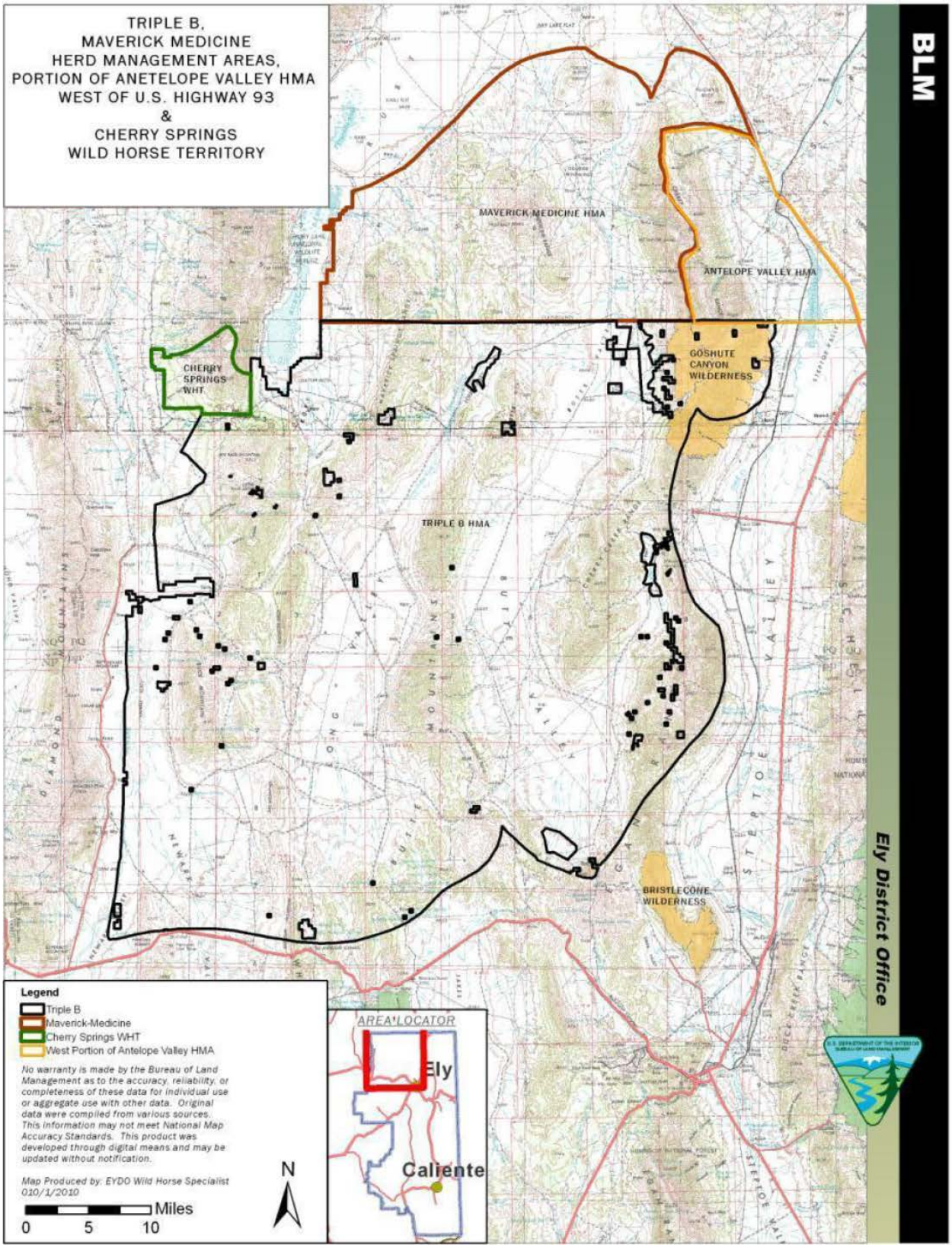
TRIPLE B,
MAVERICK MEDICINE
HERD MANAGEMENT AREAS,
PORTION OF ANETELOPE VALLEY HMA
WEST OF U.S. HIGHWAY 93
&
CHERRY SPRINGS
WILD HORSE TERRITORY
MAVERICK MEDICINE HMA
ANTELOPE VALLEY HMA
CHERRY SPRINGS WHT
GOSHUTE CANYON WILDERNESS
TRIPLE B HMA
BRISTLECONE WILDERNESS
Legend
Triple B
Maverick-Medicine
Cherry Springs WHT
West Portion of Antelope Valley HMA
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BLM
Ely District Office

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. 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).

Source: BLM Triple B EA DOI-BLM-NV-L010-2011-0004-EA

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 (NVL0100)

Dear Reader:

The Preliminary Environmental Assessment (EA) for the Triple B, Maverick-Medicine, and Antelope Valley Herd Management Areas Wild Horse Gather (EA) DOI-BLM-NV- L010-2011-0004-EA will be available for your review and comment on January 6, 2011. The document may be viewed on-line at http://www.blm.gov/nv then click on the Ely District. Hard copies are available from the Egan and Wells Field Offices.

This Environmental Assessment (EA) has been prepared to analyze the Bureau of Land Management's (BLM) Egan and Wells Field Office proposal to gather and remove excess wild horses from within and outside the Triple B, Maverick-Medicine Herd Management Areas (HMAs) and Portion of the Antelope Valley HMA West of U.S. Highway 93 beginning in about July 2011.

The Triple B, Maverick Medicine, and Antelope Valley Herd Management Areas Preliminary Environmental Assessment DOI-BLM-NV-L010-2011-0004-EA Comments will be accepted for 30 days until February 7, 2011. Interested individuals should may mail written comments to the BLM Ely District Office, HC 33 Box 33500, Ely, NV 89301 attn: Gary W. Medlyn, Egan Field Manager. EA is also posted at http://www.blm.gov/nv and click on the Ely District. Comments need to be received (mailed, faxed, or emailed) no later than 2-7-2011. **The only email comments that will be considered are emails sent to bbbmavemedwhg@blm.gov. Email comments sent to any other email address WILL NOT be considered.**

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 W. Medlyn

Gary W. Medlyn
Field Manager
Egan Field Office

BLM

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

Preliminary Environmental Assessment
DOI-BLM-NV-L010-2011-0004-EA
January 6, 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

NATIONAL SYSTEM OF PUBLIC LANDS

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1.0 INTRODUCTION

This preliminary 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 evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI).

This document is tiered to the *Ely Proposed Resource Management Plan/Final Environmental Impact Statement* (RMP/EIS, 2007) released in November 2007, 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. 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, wild horses are capable of increasing their numbers by 18% to 25% annually, resulting in the doubling of wild horse populations about every 4 years. This has resulted in the BLM shifting program emphasis beyond establishing the population levels and gathers at which it can ensure a "thriving natural ecological balance" through decisions setting appropriate management level (AML) for individual herds, to include management actions that allow for achieving and maintaining viable, and stable populations. 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 range of AML for the Triple B HMA 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

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).

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. 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 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 horse seen on the flight without double counting or adjusting any numbers.

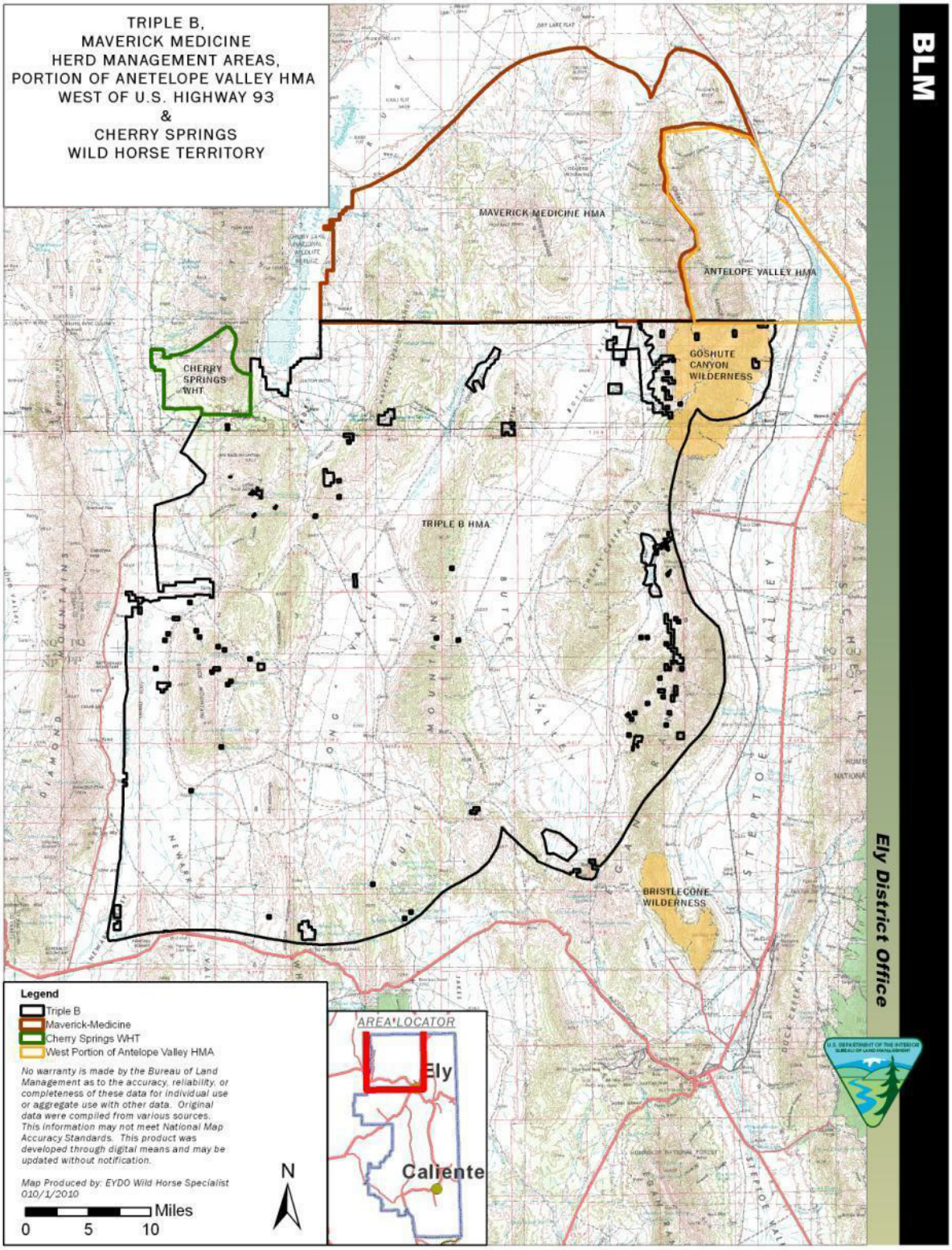
Wild horse numbers have increased an average of 20-25% annually since the HMAs and WHT were last gathered and are projected to be about 5 times over the low limit of the AML ranges (which include the 2011 foal crop). By comparison, livestock use has remained at or below permitted use levels. Livestock use has generally been in compliance with the grazing systems outlined in Final Multiple Use Decisions, Agreements, and Term Permit conditions which

provide for periodic rest and deferment of key range sites.

Based upon all information available at this time, the BLM has determined that approximately 1,726 (which includes the 2011 foal crop) excess (over the low end of AML) wild horses exist within the Triple B and Maverick-Medicine HMAs, portion of Antelope Valley HMA west of U.S. Highway 93, and Cherry Springs WHT and need to be removed in order to achieve the established AML, 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 range for the project area (Table 1).
- Use by wild horses is exceeding the forage allocated to their use by approximately 2.5 times (over the high end of AML).
- Moderate to Heavy utilization is evident on key forage species within HMAs.

Map 1


TRIPLE B,
MAVERICK MEDICINE
HERD MANAGEMENT AREAS,
PORTION OF ANETELOPE VALLEY HMA
WEST OF U.S. HIGHWAY 93
&
CHERRY SPRINGS
WILD HORSE TERRITORY
MAVERICK MEDICINE HMA
ANTELOPE VALLEY HMA
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GOSHUTE CANYON WILDERNESS
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Cherry Springs WHT
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Miles
0 5 10
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AREA LOCATOR
Ely
Caliente

1.2 Purpose and Need

The purpose of the Proposed Action is to remove excess wild horses from the HMAs to maintain AML ranges for the HMAs, 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 excess population of wild horses within the HMAs and use of rangeland resources by wild horses outside of HMA boundaries.

1.3 Conformance with BLM Land Use Plan(s)

The Proposed Action is in conformance with the 2008 Ely District ROD and Approved RMP (August 2008) 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)

- Endangered Species Act – 1973
- 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* <u>*productive capacity of their habitat*</u> (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

2.1 Introduction:

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 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 D. 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, ensure a thriving natural ecological balance, and to meet the Standards and Guidelines for Rangeland Health) and in consideration of the issues identified during internal scoping and agency consultation. Although Alternative D (the

No Action Alternative) does not comply with the 1971 Wild Free-Roaming Horses and Burros Act of 1971 and does not meet the purpose and need for action, it is included as a basis for comparison with the Proposed Action.

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

The Proposed Action would gather and remove approximately 1,726 excess wild horses within the combined project area. All wild horses residing in areas adjacent to the HMAs or WHT would be gathered and removed. The Proposed Action would 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) which would be applied to all breeding age mares that are released. The sex ratio of animals released back to the range following the gather would be slightly adjusted in favor of males (60% studs). Fertility control would be applied to all the released mares to decrease the future annual population growth. The procedures to be followed for 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 gather sufficient numbers of excess wild horses to achieve the proposed action. If gather efficiency is less than 80%, an insufficient number of wild horses may be gathered to implement fertility control, to allow release of horses back onto the range, or to achieve the low range of AML. If gather efficiencies do not allow for the attainment of the Proposed Action in summer 2011, the Egan and Wells FOs plan to return 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 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 in either summer/fall 2013 or 2014 would be conducted in a manner consistent with those described for the summer 2011 gather. If a follow-up gather is necessary to complete the Proposed Action, it could be implemented up to three years after the summer 2011 gather since the remaining and released wild horses would have a heightened response to human presence and would therefore be more difficult to gather in the year immediately following the 2011 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 selected for removal from the range based on the following priority: age class 4 and younger would be removed first, animals age 5-10 are the lowest priority for removal and would only be removed if needed to achieve AML, animals 11-19 years old would only be removed if needed to achieve AML, and animals 20 and older should not be removed from the HMAs unless specific exceptions prevent them from being turned back and left on the range.

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. No gather sites would be set up in greater sage-grouse leks, riparian areas, cultural resource sites, 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 herd. Other data, including sex and age distribution, reproduction, condition class information (using the Henneke rating system), color, size and other information may also be recorded for all gathered wild horses. 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 to long-term grassland pastures.

2.3 Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control or Sex Ratio Adjustment

Alternative B would be similar to Alternative A. However, once 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. 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 to long-term grassland pastures.

2.4 *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.*

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 to allow release of animals back the HMA, the sex ratio of animals released would favor males and all mares released would be treated fertility control. 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, the percentage of the total wild horse population gathered should increase due to the lower population size, which would allow the sex ratios to be adjusted and would allow for more mares to be treated or retreated. 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 thru 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 to long-term grassland pastures.

2.5 No Action Alternative

Under the No Action Alternative, a gather to remove excess wild horses would not occur during summer 2011. There would be no active management to control the size of the wild horse population at this time. The current wild horse population would continue to increase at a rate of 20-25% per year. Within two years, the wild horse population would exceed 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.

2.6 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 would continue, and implementation would result in significantly increased gather and fertility control costs. This alternative would not meet the purpose and need and did not receive any 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 following the next foaling season (spring 2012). This would be problematic for several reasons.

The upper levels of the AMLs established for the HMAs represent the maximum population for which thriving natural ecological balance would be maintained. The lower level represents the number of animals that should remain in the HMAs following a wild horse gather in order to allow for a periodic gather cycle of approximately every 4 years and to prevent the population from exceeding the established AML between gathers. The need to gather below the upper range of AML has been recognized by the IBLA, which has held that AML means, "that 'optimum' number of wild horses which results in a thriving natural ecological balance and avoids a deterioration of the range" (109 IBLA 119 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).

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 in this document.

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 Ely and Elko Districts of the BLM to 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, 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 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 of wild horses in the HMAs.

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. 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 or ALL of the livestock grazing

allotments 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. 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 associated with these processes. Livestock grazing continues to be evaluated for allotments and use areas within the Triple B, 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).

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.

3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL EFFECTS

General Setting

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 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 10,000 feet. Precipitation ranges from approximately 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
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.

Resource/Concern	Issue(s) Analyzed? (Y/N)	Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis
Cultural Resources	N	Cultural sites would be avoided by setting temporary holding facilities on previously disturbed areas and by relocating gather sites to avoid cultural resources. Cultural resources around springs would be better protected with wild horse removal.
Forest Health	N	Project has a negligible impact directly, indirectly and cumulatively to forest health. Detailed analysis not required.
Migratory Birds	Y	Analysis in EA
Rangeland Standards and Guidelines	N	Beneficial impacts to rangelands are consistent with the need and objectives for the Proposed Action and the attainment of Rangeland 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 in the project according to 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.
Water Quality, Drinking/Ground	N	No affects to water quality are expected. Project would avoid spring riparian, and stream locations.
Environmental Justice	N	No environmental justice issues are present at or near the project.
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 these potential farmlands. The effects would be minimal and would not directly or indirectly approach any level of significance, no further analysis is necessary.
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	Y	Analysis in EA.

Resource/Concern	Issue(s) Analyzed? (Y/N)	Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis
Species, other than those listed or proposed by the FWS as threatened or Endangered.		
Special Status Plant Species, other than those listed or proposed by the FWS as Threatened or Endangered. Also, ACECs designated to protect special status plant species.	Y	Analysis in EA.
Fish and Wildlife	Y	Analysis in EA.
Wild Horses	Y	Analysis in EA.
Soils/Watershed	Y	Analysis in EA.
Livestock Grazing	Y	Analysis in EA.
Water Resources (Water Rights)	N	No adverse effects to water resources or water rights are expected. Project would avoid spring, riparian, and stream locations.
Mineral Resources	N	There would be no modifications to 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 August 2008 in the 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. 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.

Maverick-Medicine HMA The Wells RMP Wild Horse Amendment and Decision Record, 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 range of 166-276 through the West Cherry Creek Final Multiple Use Decision in 1994, the Spruce FMUD in 1998, and the Maverick-Medicine (FMUD) in 2001. The wild horses from this HMA travel back and forth across the Elko and White Pine County Lines, 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 Nevada Department of Transportation (NDOT) fenced the 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.

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. A population inventory was conducted November 2010 utilizing a direct count method and observed 1,832 wild horses 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 (which includes the 2011 foal crop). At the time of the proposed gather the estimated population of wild horses will be approximately 5 times over the low limit of the AML. 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 will 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 and many of these sources being unable to keep up with the current wild horse

population, the BLM has been hauling water to designated spring sources within the HMAs. The Egan Field Office has hauled water during summer 2010 to Sabala spring in the Antelope Mountain southern portion of the Triple B HMA. The Wells Field Office has hauled water annually during summer months since 2005 to Cherry Springs in the Maverick Mountain Range for wild horses in the western portion of the Maverick-Medicine HMA.

Rangeland resources have been and are currently being affected within the Triple B Herd Management Area (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 has indicated Moderate (41-60%) and Heavy (61-80%) utilization attributable to wild horses. Use pattern mapping in April 2010 shows wild horse utilization for 20% of the Triple B HMA 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 of those key areas read in 2010 were the two closest to Cherry Spring: 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). These use levels can be directly attributed to their proximity to Cherry Spring and high concentration of horses due to water scarcity during the hot season.

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 avoided 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 possible differences that could occur to 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). One objective of the modeling was to identify if any of the alternatives "crash" the population or cause extremely low population numbers or growth rates. 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. Graphic and tabular results are displayed in detail in Appendix III.

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 limit of the AML. The sex ratio of animals released back to the range following the gather would be slightly adjusted in favor of males, and fertility control would be applied to all breeding age mares that are released.

Successful implementation of this alternative would be dependent on gathering 90-95% of the current wild horse population. Historically, gather efficiencies have averaged only about 80% on these HMAs. Due to the possibility of lower gather efficiency, a follow up gather may be needed in the summer/fall of 2013 or 2014 to achieve AML and complete the Proposed Action.

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).

Table 2. The following percent of effectiveness of fertility control was utilized in the population modeling.

Year 1	Year2	Year3	Year4

Normal	94%	82%	68%

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. Mares treated and released during the previous gathers were freeze-marked on the left hip with two 4 inch letters for future identification. These identifiers would be recorded along with age and health of the mare for future analysis. Additional letters could be added for future tracking purposes. Newly captured mares that are not already marked associated with previous fertility control treatments would be marked with new freeze-mark letters. This information would also be used to determine the number of mares captured that were not previously treated and provide additional insight to gather efficiency.

Ransom et al. (2010) found no differences in how PZP-treated and control mares allocated their time between feeding, resting, travel, maintenance, and social behaviors in 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 reduced reproduction as a result of fertility control should result in

improved health and condition of mares and foals and allow for healthy range conditions over the longer-term. Additionally, reduced reproduction rates would be expected to extend the time interval between gathers and reduce disturbance to individual animals as well as herd social structure over the foreseeable future.

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

Impacts to individual animals may occur as a result of handling stress associated with the gathering, processing, and transportation of animals. The intensity of these impacts varies by individual and is indicated by behaviors ranging from nervous agitation to physical distress. Mortality to individuals from this impact 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.

Wild horses gathered would be subject to one 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 fed good quality hay and water. Mares and their un-weaned foals will be kept in pens together. At the temporary holding facility, a veterinarian, when present, will provide recommendations to the BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses. Any animals affected by a chronic or incurable disease, injury, lameness or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital abnormalities) would be humanely euthanized using methods acceptable to the American Veterinary Medical Association (AVMA).

Transport, Short Term Holding, and Adoption Preparation

Wild horses removed from the range would be transported to the receiving short-term holding facility in a goose-neck stock trailer or straight-deck semi-tractor trailers. Trucks and trailers used to haul the wild horses will be inspected prior to use to ensure wild horses can be safely transported. Wild horses will be segregated by age and sex when possible and loaded into separate compartments. Mares and their un-weaned foals may be shipped together. Transportation of recently captured wild horses is limited to a maximum of 8 hours. During transport, potential impacts to individual horses can include stress, as well as slipping, falling,

kicking, biting, or being stepped on by another animal. Unless wild horses are in extremely poor condition, it is rare for an animal to die during transport.

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

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

At short-term corral facilities, a minimum of 700 square feet is provided per animal. Mortality at short-term holding facilities averages approximately 5% (GAO-09-77, Page 51) including animals euthanized due to a pre-existing condition, animals in extremely poor condition, animals that are injured and would not recover, animals which are unable to transition to feed; and animals which die accidentally during sorting, handling, or preparation.

Adoption

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

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

Potential impacts to wild horses from transport to adoption, sale or long-term 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 22,700 wild horses that are in excess of the current adoption or sale demand (because of age or other factors such as economic recession) are currently located on private land pastures in Oklahoma, Kansas, and South Dakota. Establishment of 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. Although horses residing on LTP facilities live longer, on the average, than wild horses residing on public rangelands, natural mortality of wild horses in LTP averages approximately 8% per year, but can be higher or lower depending on the average age of the horses pastured there (GAO-09-77, Page 52).

Euthanasia 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 2010 budgetary appropriations and is not expected to be available under 2011 budgetary appropriations or continuing resolutions.

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 AML for the three HMAs. Reducing population size would also ensure that the remaining wild horses remain healthy and vigorous, and that the wild horses in the 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. Achieving the AML and improving the overall health and fitness of wild horses could also increase foaling rates and foaling survival rates over the current conditions.

The primary effects to the wild horse population as a direct result of this proposed gather would be to 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 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 two minutes and ends when one stud retreats. Traumatic injuries usually do not result from these conflicts. These injuries typically involve a bite and/or

kicking with bruises which don't break the skin. Like direct individual impacts, the frequency of occurrence of these impacts among a population varies with the individual animal.

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

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

Through the capture and sorting process, wild horses are examined for health, injury and other defects. Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy. BLM Euthanasia Policy IM-2009-041 is used as a guide to determine if animals meet the criteria and should be euthanized (refer to SOPs Appendix I). Animals that are euthanized for non-gather related reasons include those with old injuries (broken hip, leg) that have caused the animal to suffer from pain or which prevent them from being able to travel or maintain body condition; old animals that have lived a successful life on the range, but now have few teeth remaining, are in poor body condition, or are weak from old age; and wild horses that have congenital (genetic) or serious physical defects such as club foot, or sway back and should not be returned to the range.

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

Alternative B – Impacts from this alternative would be similar to the Proposed Action; however there would be no horses released because only enough 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 this alternative would decrease the existing overpopulation of wild horses and reduce the associated impacts to rangeland resources. 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 the 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 treat 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, Maverick-Medicine HMAs, and portion of Antelope Valley HMA west of U.S. Highway 93 at this time. The animals would not be subject to the individual direct or indirect impacts as a result of a gather operation in July 2011. Over the short-term, individuals 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. The number of areas experiencing severe utilization by wild horses would increase over time. This would be expected to result in increasing damage to rangeland resources throughout the HMAs. Trampling and trailing damage by wild horses in/around riparian areas would also be expected to increase, resulting in larger, more extensive areas of bare ground. Competition for the available water and forage between wild horses, domestic livestock, and native wildlife would increase

Wild horses are a long-lived species with documented survival rates exceeding 92% for all age classes. Predation and disease have not substantially regulated wild horse population levels within or outside the 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. Coyote 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. There would be a steady increase in wild horse numbers for the foreseeable future, which would continue to exceed the carrying capacity of the range. Individual horses would be at risk of death by starvation and lack of water. The population of wild horses would compete for the available water and forage resources, affecting mares and foals most severely. Social stress would increase. Fighting among stud horses would increase as they protect their position at scarce water sources, 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. Continued decline of rangeland health and irreparable damage to vegetative, soil and riparian resources, would have obvious impacts to the future of the HMAs and all other users of the resources, which depend upon them for survival. As a result, the No Action Alternative would not ensure

healthy rangelands that would allow for the management of a healthy, self-sustaining wild horse population, and would not promote a thriving natural ecological balance.

As populations increase beyond the capacity of the habitat, more bands of horses would leave the boundaries of the HMAs in search of forage and water. This alternative would also 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, 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 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 Functioning at Risk with a Downward Trend or Non-Functioning. The current over population of wild horses is contributing in resource damage, preventing recovery of key sites and to the 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 over the next 4 years would be expected to initiate or improve recovery of damaged riparian habitats. The amount of trampling/trailing would be reduced. Utilization of the available forage within the riparian areas would also be expected to be reduced to within allowable levels. 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 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 that would result 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 reproduction, a steady increase in the number of wild horses through natural foaling rates would begin impacting these riparian resources earlier which will reduce the recovery of these areas.

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

No Action Alternative – With the No Action Alternative, wild horse populations would continue to increase and expand beyond the HMA. 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.

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 provides "crucial" summer and winter, year-long and intermediate habitat for mule deer, 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, habitat (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 impact 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 B would result in reduced competition with wildlife which would increase the quantity and quality of available forage. There would be fewer disturbances associated with wild horses along stream and riparian habitats and adjacent upland habitats.

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

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

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

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

Affected Environment

There are no known federally listed or proposed species found in the 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 at year-round residents of the HMAs. Bald eagles have been documented and 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 to provide 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 HMAs contain 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 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 has been identified to 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 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 nor within crucial intact habitat, there would be no impact from the placement of or activities at these 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 they 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 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 the same as described for the Proposed Action.

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

4.5. Livestock

Affected Environment

The 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 also occurs 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	100%
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	1%
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 an HMA, the Harrison and Ruby #8 Allotments are completely fenced from horse use.
[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 generally been reduced over the past decades in a majority of the 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 generally been less than permitted use for each of the grazing allotments (Tables 3 through 5). This has been in part due to persistent drought and competition with wild horses for 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 operation. Typically livestock would move back into the area once gather operations cease. Removal of excess wild horses would result in an increase in forage availability and quality, reducing competition between livestock and wild horses for available forage and water resources.

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

Alternative C – Impacts would be the same as described for 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 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 as a result of an improved 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 population growth of wild horses. Wilderness areas currently receive moderate - heavy use by wild horses during certain times of the year. Increasing wild horse populations would be expected to further degrade the condition of vegetation and soil resources. The 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 FOs. 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 arrive already inadvertently carrying seeds attached to the vehicle or equipment. This is

especially a concern as 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. 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. 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 for 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, due to increased wild horse numbers continued overgrazing of the present plant communities could lead to an expansion of noxious weeds and invasive non-native species.

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 forbes 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 forbes species.

Environmental Impacts

Proposed Action- The Proposed Action would impact vegetation temporarily with trampling and disturbance of vegetation occurring at gather sites and holding locations. Disturbance would occur to native vegetation in and around temporary gather corrals and holding facilities due to

the use of vehicles and concentration of horses in the immediate area of such facilities. The disturbed area, however, would make up less than one acre. Gather corrals and holding facility locations are usually selected in areas easily accessible to livestock trailers and standard equipment, often utilizing roads, gravel pits or other previously disturbed sites, and which are accessible using existing roads. New roads are not created to construct capture corrals. Temporary gather sites may have a short term impact on vegetation. 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 5 to 80 horses. 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 in balance with the available water sources and forage availability.

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

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

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

No Action Alternative-Vegetation would continue to be utilized, increasing over time as the population of horses increase. Rangeland health standards would not be achieved as plant vigor and reproduction decreased, while the population of wild horses increased over time on the range.

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, combined with the relative small areas used for gathering and holding operations. Horses may be concentrated for a limited period of time in traps. Potential for soil compaction would

occur but would be minimal and temporary and is not expected to adversely impact soil or hydrologic function. Long term impacts may improve the area due to less soil compaction from trailing.

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/watersheds would continue to have horse use and as horse populations increase heavy trailing and trampling around water sources would occur. Watershed objectives would not be met due to increased horse populations over time.

4.10. Public Health and Safety

Affected Environment

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

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

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

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

Public observation of the gather activities on public lands will be allowed and would be consistent with BLM IM No. 2010-164 and in compliance with 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- Under the 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.

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 Nevada Department of Transportation (NDOT) fenced the 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 Territories.

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.

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. Resource damage is occurring in portions of the HMAs and WHT due to excess animals. Current BLM policy is to conduct removals targeting portions of the wild horse population based upon age, and allowing the correction of any sex ratio problems that may occur. Further, the BLM's policy is to conduct gathers in order to facilitate a four-year gather cycle 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 prohibits the destruction of healthy animals that are removed or deemed to be excess 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 and West to care for excess wild horses 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.

Reasonably Foreseeable Future Actions
In the future, the BLM would manage wild horses within HMAs that have suitable habitat for a range in AML, while maintaining genetic diversity, age structure, and sex ratios. Current policy is to express all future wild horse AMLs as a range, to allow for regular population growth, as well as better management of populations rather than individual HMAs. The Ely BLM District completed the *Ely Proposed Resource Management Plan/Final Environmental Impact Statement* (RMP/EIS, 2007) released in November 2007 which analyzed AMLs expressed as a range and addressed wild horse management on a programmatic basis. Future wild horse management in the BLM's Ely and Elko Districts as well as the USFS's Humboldt-Toiyabe National Forest 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 anticipation for amendments to WFRHBA, any amendments may 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.

As the BLM and USFS achieves AML on a National basis, gathers should become more predictable due to facility space. 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, exploration, new or continuing infestations of invasive plants, noxious weeds, and pests and their associated treatments, and continued native wildlife populations and recreational activities historically associated with them. The significance of cumulative effects based on past, present, proposed, and reasonably foreseeable future actions are determined based on context and intensity.

Impacts 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 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 mares from HMAs in similar environments may be added every generation (every 8-10 years) to avoid inbreeding depression/maintain acceptable genetic diversity. Ongoing resource monitoring, including climate (weather), and forage utilization, population inventory, and distribution data will continue to be collected.

7.0 Consultation and Coordination

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

The use of helicopters and motorized vehicles has proven to be a safe, effective and practical means for the gather and removal of excess wild horses and burros from the range. Since July 2004, Nevada has gathered 26,000 animals with a total mortality of 1.1% (of which .5% was gather related), which is very low when handling wild animals. BLM also avoids gathering wild horses prior to or during the peak foaling season and does not conduct helicopter removals of wild horses during March 1 through June 30.

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.

Comments on the Triple B, Maverick-Medicine and Antelope Valley Herd Management Areas Preliminary Environmental Assessment DOI-BLM-NV-L020-2011-0004-EA will be accepted for 30 days until February 7, 2011. Interested individuals should mail written comments to the BLM Ely District Office, HC 33 Box 33500, Ely, NV 89301 attn: Gary W. Medlyn, Egan Field Manager.

This EA is also posted at http://www.blm.gov/nv; in the map of Nevada, click on the Ely District and you will be directed to the Ely District webpage. Comments need to be received (mailed, faxed, or emailed) no later than 2-7-2011. **The only email comments that will be considered are emails sent to bbbmavmedwhb@blm.gov. Email comments sent to any other email address WILL NOT be considered.**

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**
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 Protection Specialist**	**Human Health and Safety, Hazardous Wastes**
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**
Terrell 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**

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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 be made available to the extent possible; however, the primary considerations will be to protect the health, safety and welfare of the animals being gathered and the personnel involved. The public must adhere to guidance from the on-site BLM representative. It is BLM policy that the public will not be allowed to come into direct contact with wild horses or burros being held in BLM facilities. Only authorized BLM personnel or contractors may enter the corrals or directly handle the animals. The general public may not enter the corrals or directly handle the animals at anytime or for any reason during BLM operations.

J. Responsibility and Lines of Communication

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 Schell Supervisory Natural Resource Specialist and the Schell Field Managers will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, and BLM Holding Facility

offices. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries will be handled through the Field Manager and/or the Supervisory Natural Resource Specialist and Field Office Public Affairs. These individuals will be the primary contact and will coordinate with the COR/PI on any inquiries.

The COR will coordinate with the contractor and the BLM Corrals to ensure animals are being transported from the gather site in a safe and humane manner and are arriving in good condition.

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

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

Appendix III
Triple B, Maverick-Medicine Herd Management Area and Western Portion of the Antelope Valley HMA Population Modeling

To complete the population modeling for the Triple B, Maverick-Medicine Herd Management Areas 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: 94%, Year 2: 82%, Year 3: 68%

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

Contraception Criteria
(Alternative I)

Age	Percentages for Fertility Treatment
1	0%
2	100%
3	100%
4	100%
5	100%
6	100%
7	100%
8	100%
9	100%
10-14	100%
15-19	100%
20+	100%

Population Modeling Criteria

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

- Starting Year: 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:

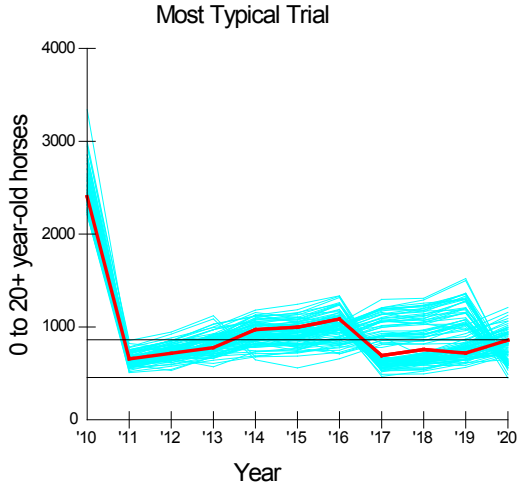
Population Modeling Parameters

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 C 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 after removals to treat	Yes	No	Yes	N/A

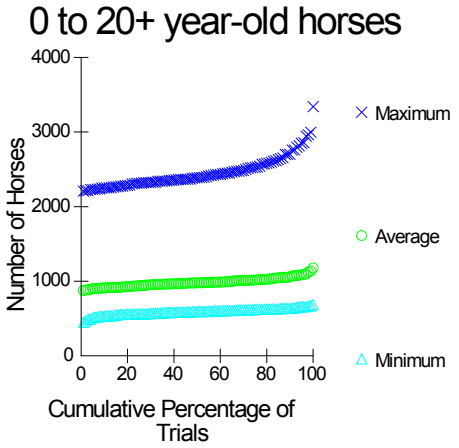
additional females				
Effectiveness of Fertility Control: Year 1	94%	N/A	94%	N/A
Effectiveness of Fertility Control: Year 2	82%	N/A	82%	N/A
Effectiveness of Fertility Control: Year 3	68%	N/A	68%	N/A

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

Most Typical



Population Size



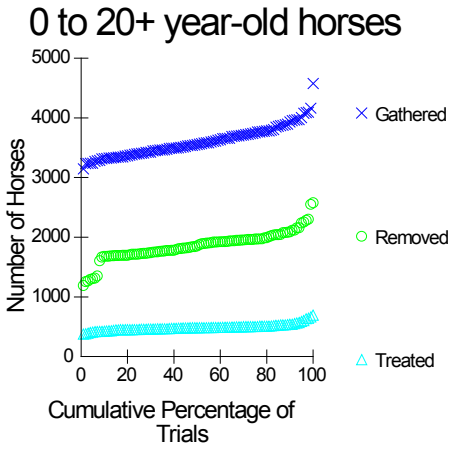
Population Sizes in 11 Years*

	Minimum	Average	Maximum
Lowest Trial	449	874	2207
10th Percentile	532	909	2250
25th Percentile	561	939	2315
Median Trial	593	977	2388
75th Percentile	620	1016	2530
90th Percentile	638	1063	2730
Highest Trial	684	1177	3341

* 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 449 and the highest was 3,341. In half the trials, the minimum population size in 11 years was less than 593 and the maximum was less than

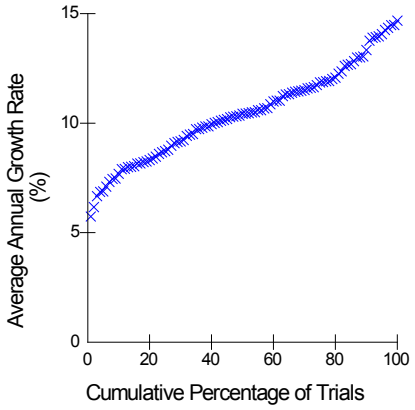
2,388. The average population size across 11 years ranged from 874 to 1,177.
Gather



	Totals in 11 Years*		
	Gathered	Removed	Treated
Lowest Trial	3144	1191	379
10th Percentile	3318	1680	428
25th Percentile	3403	1722	456
Median Trial	3557	1863	484
75th Percentile	3755	1968	504
90th Percentile	3942	2103	542
Highest Trial	4577	2577	694

* 0 to 20+ year-old horses

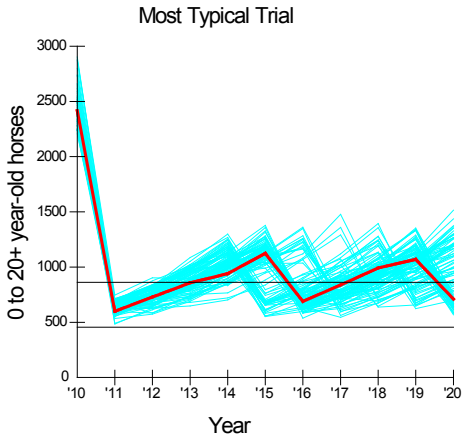
Growth Rate



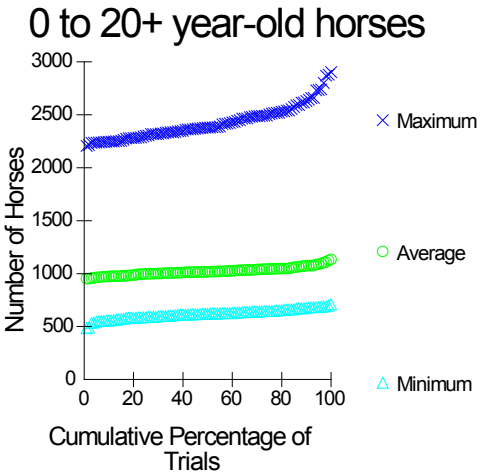
Average Growth Rate in 10 Years	
Lowest Trial	5.7%
10th Percentile	7.8%
25th Percentile	8.8%
Median Trial	10.4%
75th Percentile	11.9%
90th Percentile	13.5%
Highest Trial	14.7%

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

Most Typical



Population Size

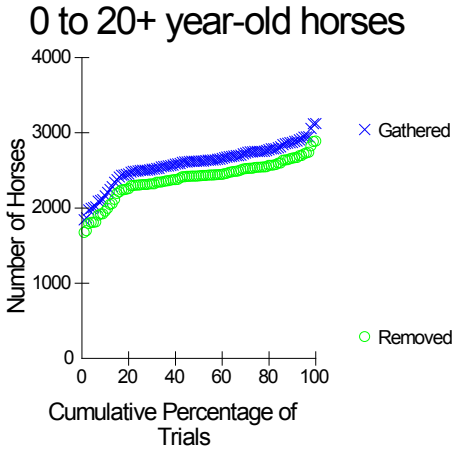


	Population Sizes in 11 Years*		
	Minimum	Average	Maximum
Lowest Trial	485	952	2206
10th Percentile	558	973	2247
25th Percentile	589	996	2304
Median Trial	622	1016	2379
75th Percentile	646	1043	2508
90th Percentile	678	1074	2636
Highest Trial	710	1133	2902

* 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 485 and the highest was 2,902. In half the trials, the minimum population size in 11 years was less than 622 and the maximum was less than 2,379. The average population size across 11 years ranged from 952 to 1,133.

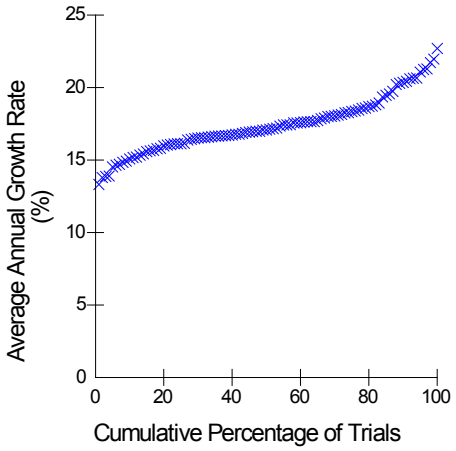
Gather



	Totals in 11 Years*	
	Gathered	Removed
Lowest Trial	1843	1674
10th Percentile	2185	1974
25th Percentile	2500	2308
Median Trial	2624	2427
75th Percentile	2752	2541
90th Percentile	2879	2665
Highest Trial	3123	2888

* 0 to 20+ year-old horses

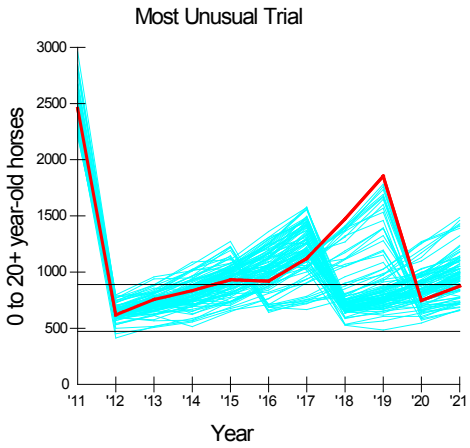
Growth Rate



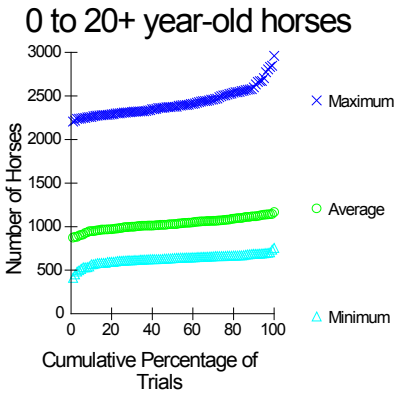
Average Growth Rate in 10 Years	
Lowest Trial	13.3
10th Percentile	15.1
25th Percentile	16.1
Median Trial	17.1
75th Percentile	18.4
90th Percentile	20.4
Highest Trial	22.7

Alternative C: ***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

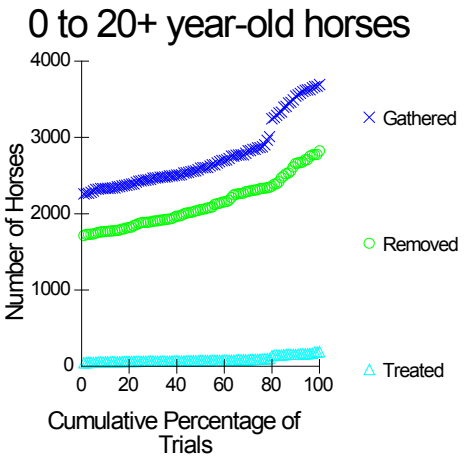


	Population Sizes in 11 Years*		
	Minimum	Average	Maximum
Lowest Trial	413	874	2206
10th Percentile	568	948	2263
25th Percentile	608	987	2306
Median Trial	638	1028	2375
75th Percentile	664	1075	2506
90th Percentile	688	1117	2615
Highest Trial	756	1167	2960

* 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 413 and the highest was 2,960. In half the trials, the minimum population size in 11 years was less than 638 and the maximum was less than 2,375. The average population size across 11 years ranged from 874 to 1,167.

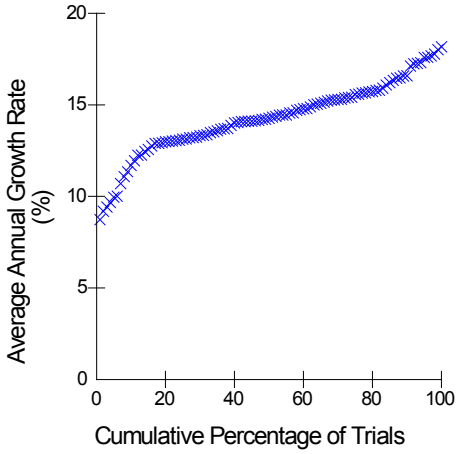
Gather



	Totals in 11 Years*		
	Gathered	Removed	Treated
Lowest Trial	2260	1712	46
10th Percentile	2332	1766	57
25th Percentile	2434	1882	66
Median Trial	2602	2055	74
75th Percentile	2872	2328	92
90th Percentile	3550	2660	156
Highest Trial	3693	2821	191

* 0 to 20+ year-old horses

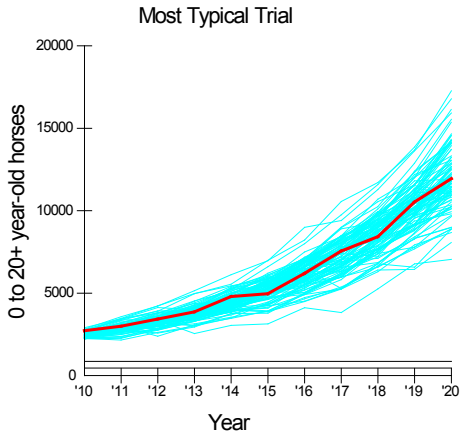
Growth Rate



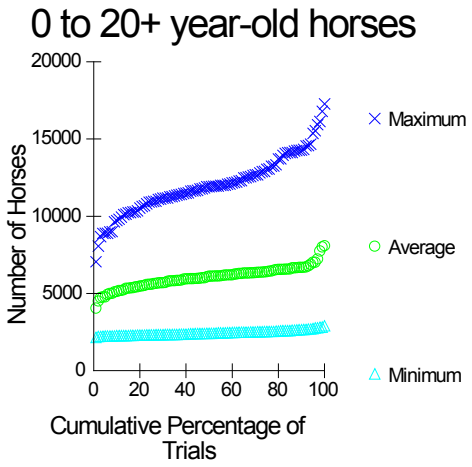
Average Growth Rate in 10 Years	
Lowest Trial	8.7
10th Percentile	11.8
25th Percentile	13.1
Median Trial	14.3
75th Percentile	15.6
90th Percentile	16.9
Highest Trial	18.2

No Action

Most Typical



Population Size

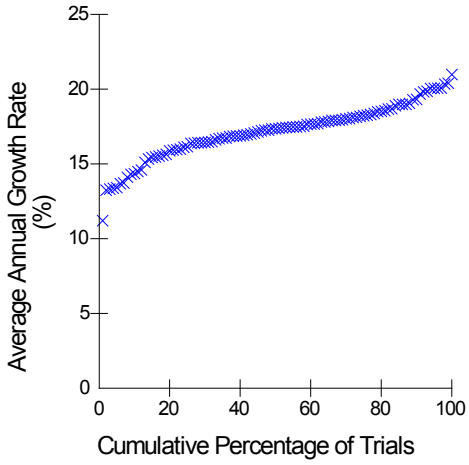


	Population Sizes in 11 Years*		
	Minimum	Average	Maximum
Lowest Trial	2153	4044	7052
10th Percentile	2267	5155	9764
25th Percentile	2320	5613	10948
Median Trial	2418	6114	11920
75th Percentile	2537	6423	13050
90th Percentile	2662	6688	14304
Highest Trial	2905	8089	17273

* 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 2,153 and the highest was 17,273. In half the trials, the minimum population size in 11 years was less than 2,418 and the maximum was less than 11,920. The average population size across 11 years ranged from 4044 to 17273.

Growth Rate



Average Growth Rate in 10 Years	
Lowest Trial	11.2
10th Percentile	14.4
25th Percentile	16.3
Median Trial	17.4
75th Percentile	18.2
90th Percentile	19.5
Highest Trial	21.0

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 AND MAVERICK MEDICINE HERD MANAGEMENT AREAS
WILD HORSE GATHER

White Pine County, Nevada

On November 22, 2010 a Noxious & Invasive Weed Risk Assessment was completed for the wild horse gather. This weed risk assessment only covers the Triple B 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 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 I.

Alternative B: Alternative B would be similar to Alternative A. Once 1,726 wild horses are gathered and removed the gather would conclude. No wild horses would be released with (PZP -22) fertility control and sex ratios would not be adjusted. All wild horses residing outside the HMA 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 to long term holding (grassland pastures).

No Action Alternative: Under the No Action Alternative, a gather to remove excess wild horses would not occur during summer 2011. There would be no active management to control the size of the wild horse population at this time. The current wild horse population would continue to increase at a rate of 20-25% per year.

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

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 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 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 District Noxious and Invasive Weeds Coordinator for treatment.

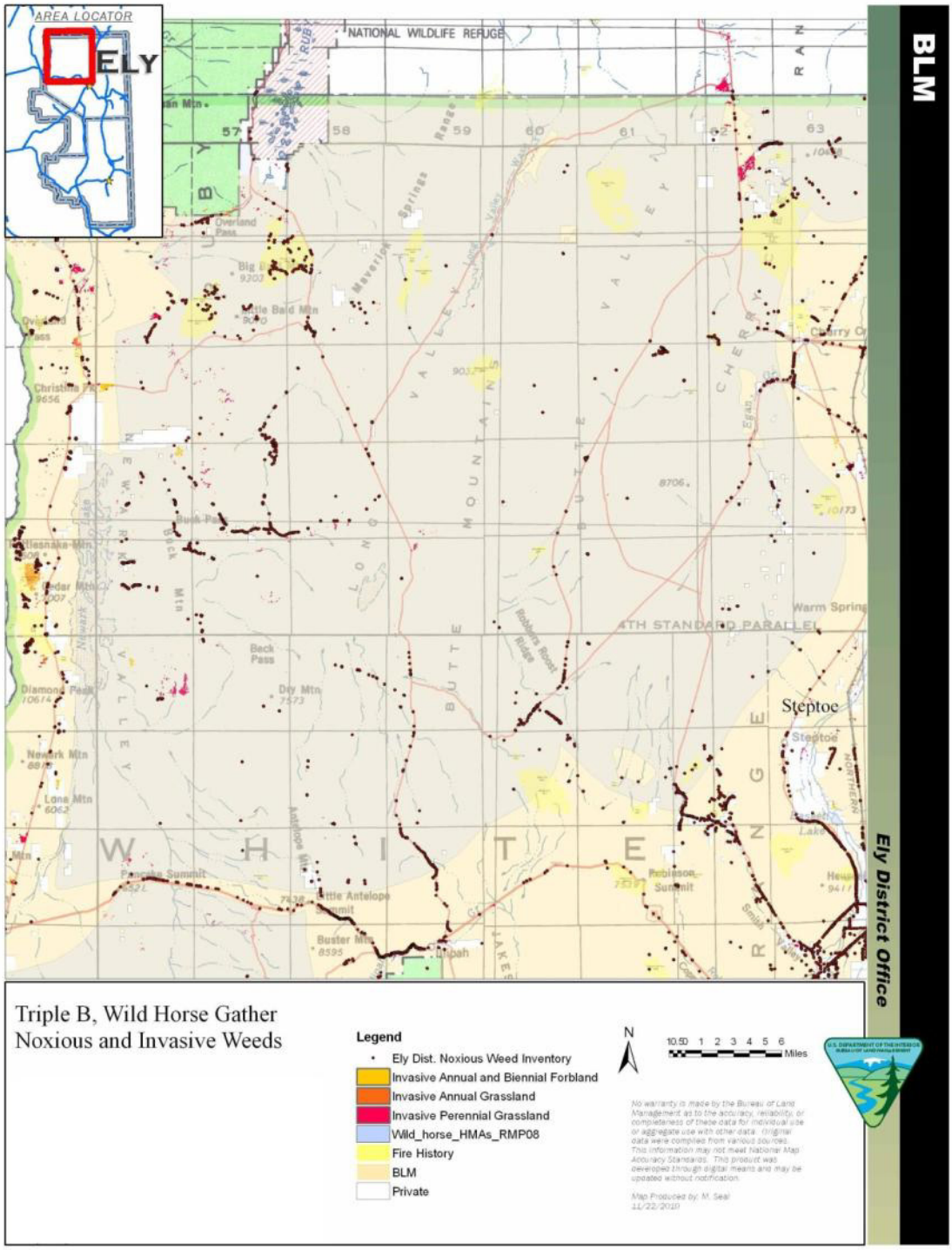
The Ely District normally requires that all hay, straw, and hay/straw products use in project be free of plant species listed on the Nevada noxious weed list. However, this gather is being implemented through the National Wild Horse & Burro Gather Contract and there are no stipulations in this national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

Until such a time as weed free hay is required, the Ely District 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 11/22/2010

Mindy Seal Date
Natural Resource Specialist

Figure 1. Map of Documented Noxious and Invasive Weeds



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 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.

- A **Wild Horse Gather Info Line will be set up prior to gather** for daily updates on gather statistics.

- A guided observation 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.

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

- BLM will set up **one guided-observation day per week**. 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.

- To provide a safe environment for the animals, BLM staff, contractors and members of the public/media, requests will be accepted on a first come, first served basis and be limited to **10 people** per observation day. The BLM recommends all appointments be made as far in advance as possible in order to help us schedule and confirm your request, and will make every reasonable effort to accommodate the public.

- 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 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.
- 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-observation days.
- Observers may also visit gather sites on **non-guided observer days**, where they will be directed to a designated safety observer area to view operations. The Wild Horse Gather Information Line will be updated late every afternoon with the location of the next day's 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).
- 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.).