

Environmental Assessment

Adobe Town – Salt Wells Creek Herd Management Area Complex Wild Horse Gather

WY-040-EA10-109

High Desert District – Rock Springs and Rawlins Field Offices

August 26, 2010



The BLM's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

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Environmental Assessment

for

**Adobe Town – Salt Wells Creek
Herd Management Area Complex
Wild Horse Gather**

Prepared by

**Bureau of Land Management
Rock Springs and Rawlins Field Offices
Wyoming**

WY-040-EA10-109

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Contents

1.0	Introduction.....	1
1.1	Background Information.....	1
1.2	Purpose and Need	3
1.3	Relationship to Statutes, Regulations, Plans, or Other Environmental Analyses.....	4
1.4	Scoping, Public Involvement, and Issues	5
2.0	Proposed Action and Alternatives	6
2.1	Alternative A: Proposed Action – Remove Excess Animals to Lower Limit of AML range with Fertility Control and Adjustment of Sex Ratios (favoring stallions 60:40).....	7
2.2	Alternative B: Remove Excess Animals to Lower Limit of AML Range.....	7
2.3	Alternative C: No Action Alternative – No Gather or Removal	7
2.4	Alternatives Considered but Eliminated from Detailed Analysis.....	8
3.0	Description of the Affected Environment and Environmental Consequences	9
3.1	Introduction.....	9
3.2	Wild Horses	10
	Affected Environment.....	10
	Environmental Consequences.....	12
3.3	Wildlife, Threatened and Endangered Species, Special Status Species, and Migratory Birds	17
	Affected Environment.....	17
	Environmental Consequences.....	19
3.4	Vegetation, Soils, and Watershed	19
	Affected Environment.....	19
	Environmental Consequences.....	21
3.5	Recreation	23
	Affected Environment.....	23
	Environmental Consequences.....	23
3.6	Wilderness and Wilderness Study Areas	24
	Affected Environment.....	24
	Environmental Consequences.....	24
3.7	Livestock Grazing.....	25
	Affected Environment.....	25
	Environmental Consequences.....	25
3.8	Heritage Resources	26
	Affected Environment.....	26
	Environmental Impacts	26
3.9	Cumulative Impacts	27
	Past, Present, and Reasonably Foreseeable Actions	27
	Effect of Past, Present, and Reasonably Foreseeable Future Actions.....	27
	Mitigation Measures and Suggested Monitoring.....	30
	Residual Impacts.....	31
4.0	Tribes, Individuals, Organizations, or Agencies Consulted	31
5.0	List of Preparers.....	32
6.0	References.....	33

Appendices

Appendix I, Summary of Scoping Comments 35
Appendix II, Standard Operating Procedures 53
Appendix III, Standard Operating Procedures for Fertility Control Treatment..... 59
Appendix IV, Wild Horse Population Modeling 61
Appendix V, Livestock Grazing Status within Adobe Town Salt Wells Complex 73
Appendix VI, Maps of Known Wildlife Habitat Locations..... 77

Tables

Table 1. HMAs and Associated non-HMAs within the Adobe Town and Salt Wells Creek
Project Area. 1
Table 2. Wyoming Special Status Plant Species 21
Table 3. Past, Present, and Reasonably Foreseeable Future Actions..... 27

1.0 Introduction

1.1 Background Information

This Environmental Assessment (EA) has been prepared to analyze the environmental effects of wild horse gather operations and potential population control methods (including fertility control treatment and sex ratio adjustment) in order to achieve and maintain the established Appropriate Management Levels (AMLs) for the Adobe Town and Salt Wells Creek Herd Management Areas (HMAs). The BLM has determined that excess wild horses are present in Adobe Town and Salt Wells Creek HMAs above the AMLs.

This EA contains the site-specific analysis of potential impacts that could result with the implementation of a proposed action or alternatives to the proposed action. The EA ensures compliance with the National Environmental Policy Act (NEPA); it analyzes information to determine whether to prepare an Environmental Impact Statement (EIS) or issue a Finding of No Significant Impact (FONSI). A FONSI documents why implementation of the selected action will not result in environmental impacts that significantly affect the quality of the human environment.

The proposed project area is located in southwest Wyoming within Carbon and Sweetwater Counties and covers approximately 2,574,258 acres of public, State, and private lands and includes the two BLM herd management areas (HMAs) listed in Table 1 and Figure 1.

Table 1. HMAs and Associated non-HMAs within the Adobe Town and Salt Wells Creek Project Area

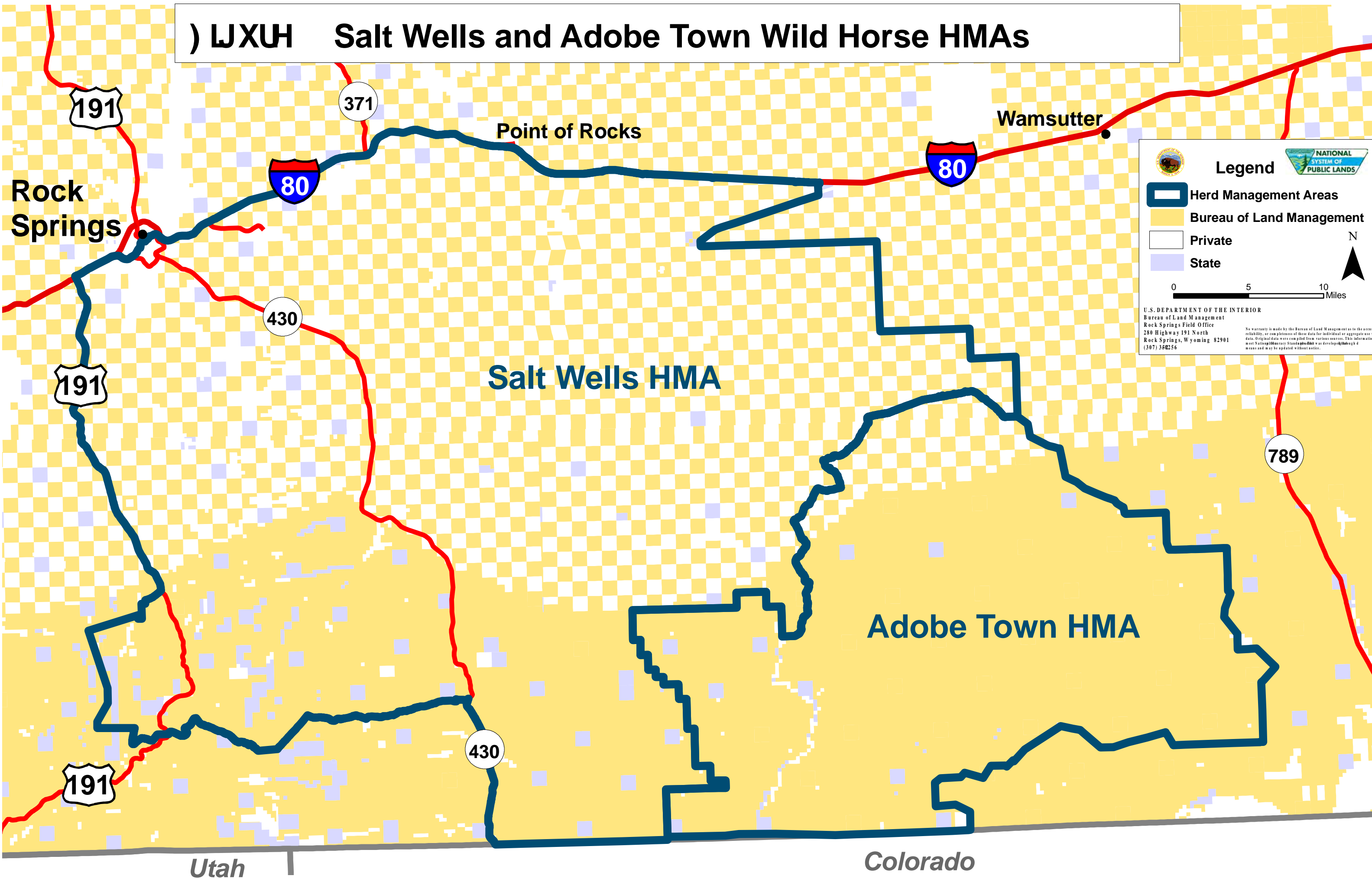
Area	Federal Acres	Other Acres
Adobe Town HMA	417,916	30,000
Salt Wells Creek HMA	690,400	480,308
I-80 South* (RFO)	359,000	195,000
RSFO Outside HMAs**	279,808	121,724
Total Acres (BLM)	1,747,208	827,050

**All lands south of Interstate 80 and west of Wyoming Highway 789 with the exception of the Adobe Town HMA. The horses are not uniformly distributed throughout this entire area.*

***This represents only part of that area and includes all lands south of Interstate 80 and east of Flaming Gorge Reservoir with the exception of the Salt Wells Creek HMA. The horses are not uniformly distributed throughout this entire area.*

Historically, the Adobe Town and Salt Wells Creek HMAs have been managed separately by the Rawlins and Rock Springs Field Offices (RFO and RSFO). In 2003, the two field offices began managing the two HMAs under joint cooperative management since there are no physical or geographical boundaries to restrict movement of wild horses between the two HMAs. For the remainder of this document the project area will be referred to as the Adobe Town and Salt Wells Creek Herd Management Complex (ATSW Complex). Refer to Figure 1 for a map of the affected area.

) LXXUH Salt Wells and Adobe Town Wild Horse HMAs



Rock Springs

Point of Rocks

Wamsutter

Salt Wells HMA

Adobe Town HMA

Utah

Colorado

Legend

- Herd Management Areas
- Bureau of Land Management
- Private
- State

0 5 10 Miles

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No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards and was developed through a process that may be updated without notice.

The Appropriate Management Level (AML) for the jointly-managed ATSW Complex has an identified management range of 861 to 1,165. The AML (610-800 adult horses) for the Adobe Town HMA was based on BLM planning decisions and established in the Great Divide Resource Area Wild Horse Herd Management Area Evaluation May 1994) following intensive resource monitoring. The management range of 610 to 800 wild horses was reaffirmed in the Record of Decision and Approved Rawlins Resource Management Plan (BLM 2008a).

The AML for the Salt Wells Creek HMA was based on a 1979 agreement between the Rock Springs Grazing Association and Wild Horses Yes, which provided for the management of specific numbers of wild horses on the privately controlled lands and the contiguous public lands within the Salt Wells Creek HMA. The AML (251-365) was established in the Green River Resource Management Plan (RMP) (1997) based on this agreement.

Wild horses were last removed from the ATSW Complex in January 2007 when 918 horses were captured and 844 horses were removed and in August of 2007 when 171 horses were caught and removed from outside the Adobe Town HMA.

Currently, the estimated population is approximately 2,438 horses. The estimated current wild horse population within the ATSW Complex is based on the July 2009 flights and adjusted for one year's foal crop. Of the estimated 2,438 wild horses, approximately 1,577 are present above the low AML for the Adobe Town-Salt Wells Complex.

Based upon all information available at this time, the BLM has determined that 1,577 excess wild horses need to be removed. This determination is based on the following factors including, but not limited to:

- The current estimated population of wild horses is 2,438, and 1,577 horses in excess of the AML lower limit. This estimate is based on the direct count population inventory conducted in July 2009 and includes the addition of the 2009 and 2010 foal crops.
- Use by wild horses is exceeding the forage allocated to their use by 3 times.
- By comparison, livestock use has averaged only 26%, and 39 % of active preference in allotments within the Adobe Town and Salt Wells Creek HMAs respectively between 2005 and 2009. The BLM is currently not restricting permitted livestock use for the allotments within the HMAs. Some permittees have voluntarily opted for nonuse due to drought conditions and high horse numbers; however, the BLM did not request nonuse in these allotments.
- Utilization monitoring completed in 2010 documents heavy to severe utilization by wild horses on key forage species within upland areas (Brady Plant and Miller Mountain) of the Salt Wells Creek HMA.

Analysis of the above information indicates that excess wild horses are present and require immediate removal. As a result, any decision of the authorized officer will be implemented effective on September 30, 2010 under authority provided in 43 Code of Federal Regulations (CFR) 4770.3(c).

1.2 Purpose and Need

The purpose of the proposed action is to maintain established AMLs in the Adobe Town and Salt Wells HMAs consistent with the Green River RMP (1997) and the Rawlins RMP (2008). The need for this action is to remove excess animals in order to achieve a thriving natural ecological balance between wild horse populations, wildlife, vegetation, and water resources and to protect the range from deterioration associated with overpopulation of wild horses as authorized under Section 1333 (b) (2) of the 1971 Wild Free-Roaming Horses & Burros Act (1971).

The proposed action and alternatives are also needed to assure that wild horses are managed at the minimum feasible level of management and in consultation with State wildlife agency as required in Section 1333(a) of the 1971 Act. Applying fertility control protocol and adjusting sex ratios as a part of the proposed action would slow reproduction rates of mares returned to the ATSW Complex following the gather, allowing vegetation resources time to recover. It would also decrease gather frequency and disturbance to individual animals and the herd and provide for a more stable herd structure.

The proposed management actions are also needed to be in conformance with the August 2003 Consent Decree confirmed by the United States District Court of Wyoming. This is an out-of-court settlement agreement between the State of Wyoming and United States Department of the Interior Bureau of Land Management. This agreement specifies that when information is gathered that indicates that an HMA within the State of Wyoming is determined to be over the established AML, the BLM has one year from discovery to remove wild horses to the low range of AML.

Decision to Be Made The authorized officers will select the action to be implemented to achieve and maintain the established Appropriate Management Levels (AMLs) for the Adobe Town and Salt Wells Creek Complex.

1.3 Relationship to Statutes, Regulations, Plans, or Other Environmental Analyses

Conformance with Existing Land Use Plans

The proposed action and other action alternatives are in conformance with both the Record of Decision and Approved Rawlins RMP approved December 2008 and the Green River RMP approved on August 8, 1997. The Rawlins Resource Management Plan objectives for management of wild horses are to: 1) Maintain wild horse populations within the AML of the HMA, 2) Manage wild horses to meet the Wyoming Standards for Healthy Rangelands (BLM 1997a), 3) Identify existing genotypes and phenotypes through recognized means of genetic evaluation and maintain genetic integrity, 4) Maintain the health of wild horse herds at a level that prevents adverse affects to domestic horse populations, 5) Maintain habitat for existing AMLs, and 6) Conduct all activities in compliance with relevant court orders and agreements, including the Consent Decree (August 2003).

The Green River RMP (BLM 1997b) objectives for management of wild horses are to: 1) protect, maintain, and control viable, healthy herds of wild horses while retaining their free-roaming nature; 2) provide adequate habitat for free-roaming wild horses through management consistent with principles of multiple use and environmental protection; and 3) provide opportunity for the public to view wild horses. Gathering and removal of excess wild horses from the Salt Wells Creek HMA is in conformance with the Green River RMP. Wild horse numbers that were agreed to with private land owners and wild horse advocacy groups were addressed in developing the RMP. Wild horse HMAs were established or confirmed through the Green River RMP planning process.

Conformance with Rangeland Health Standards and Guidelines

The proposed action and other action alternatives are in conformance with the BLM Wyoming “Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management” (1997). The proposed action will assist in maintaining the health of the public lands within the HMAs. A copy of the BLM Wyoming “Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management” (1997) is available upon request from the BLM. In addition, the Upper Colorado River Standards and Guidelines Watershed Assessment (2001) recommended reaching and maintaining AML for Adobe Town and removing all horses outside the HMA due to excess horse numbers and their associated high levels of forage utilization.

Conformance with August 2003 Consent Decree State of Wyoming v. U.S. Department of the Interior, BLM (Civil Action No. 03 CV 169D)

The proposed action and other action alternatives are in conformance with the Consent Decree that states ‘If BLM determines, based on the results of any inventory and on projected reproduction rates, that the wild horse population in any HMA or other area in Wyoming is likely to exceed AML in the following fiscal year, the BLM shall in its budget submission to the DOI for the next budget cycle include a request to reduce that HMA back to the AML. If the BLM fails to reduce the number of wild horses to AML by December 15 of the year of the next budget cycle, the State of Wyoming may petition the court to compel removal of horses over the AML in the HMA at that time based on the Wild Free-Roaming Horses and Burros Act and applicable law’ (Consent Decree 2003).

Conformance with Court Order No. C79-275K

The proposed action and other action alternatives are in conformance with court order No. C79-275K Mountain States Legal Foundation vs. James G. Watt, Secretary of the Department of the Interior, filed February 19, 1982, that states ‘the BLM has determined that the appropriate management level for the horse herds on the Salt Wells/Pilot Butte checkerboard lands is that level agreed to by the landowners in that area. All horses on the checkerboard above such levels are ‘excess’ within the meaning of 16 USC 1332(f) (1976 and Supp III)’ (Court Order, 1982).

Relationship to Statutes, Regulations, or Other Plans

Public lands are managed under the FLPMA, which provides that the public lands are to be managed in accordance with land use plans and under principles of multiple use and sustained yield to protect the quality of scenic, ecological, environmental, and archeological values; to preserve and protect public lands in their natural condition; to provide feed and habitat for wildlife and livestock; and to provide for outdoor recreation 43 USC 1701(a)(8).1732(a). FLPMA also stresses harmonious and coordinated management of the resources without permanent impairment of the environment 43USC 1701(c).

The proposed action and action alternatives are in conformance with the regulations for implementing the Wild and Free-Roaming Horses and Burro Act found at 43 CFR 4700:

- 43 CFR 4700.0-6 (a): *Wild horses shall be managed as self-sustaining populations of healthy animals and in balance with other uses and the productive capacity of their habitat.*
- 43 CFR 4700.0-6 (e): *Healthy excess wild horses for which an adoption demand by qualified individuals exists shall be made available at adoption centers for private maintenance and care.*
- 43 CFR 4710.4: *Management of wild horses shall be at the minimum level necessary to attain the objectives identified in approved land use plans.*
- 43 CFR 4720.1: *Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exist, the authorized officer shall remove the animals immediately.*

No federal, state, or local law or requirement imposed for the protection of the environment will be threatened or violated under the proposed action or any action alternatives described in detail in this EA.

1.4 Scoping, Public Involvement, and Issues

Internal scoping by an interdisciplinary team identified issues of concern to be analyzed. Public comments on the various components of wild horse management on public lands in the Salt Wells Creek and Adobe Town HMAs have been received throughout the last several years. On February 19, 2010, the BLM issued a scoping letter for this proposed wild horse gather. In excess of 7,000 comment letters/emails were received from individuals, organizations, and agencies following the issuance of the Adobe Town and Salt Wells Creek HMA Complex -Wild Horse Gather Plan Scoping Letter addressing the proposed action. These comments represented a range of views of opinion and interpretation of

selected pieces of data. The majority of these approximately 7,000 letters or emails were one of two form letters. All comment letters were reviewed and considered and resulted in approximately 5 unique substantive comments (see Appendix I, Summary of Scoping Comments). All the substantive comments have been considered in the development of the EA. A draft of this EA, unsigned Finding of No Significant Impact (FONSI), and unsigned Decision Record were posted for a 30-day public review period on July 16, 2010 and BLM received approximately 3,000 additional comments. A summary of the comments has been added to Appendix I and incorporated into the EA as appropriate.

2.0 Proposed Action and Alternatives

This section 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:

- Alternative A: Proposed Action - Remove Excess Animals to Lower Limit of AML range with Fertility Control and Adjustment of Sex Ratios (favoring stallions 60:40).
- Alternative B: Remove Excess Animals to Lower Limit of AML Range
- Alternative C: No Action Alternative - No Gather or Removal

The proposed action and other action alternatives were developed to meet the BLM purpose and need. Alternative C (No Gather or Removal) does not comply with the 1971 Wild Free-Roaming Horses Act (as amended), nor meet the purpose and need for action; it is included as a basis for comparison with the action alternatives.

Actions Common to Alternatives A and B

The following actions are common to Alternatives A and B:

- All capture and handling activities would be conducted in accordance with the Standard Operating Procedures (SOPs) described in Appendix II (SOPs). Multiple capture sites (traps) would be used to capture wild horses within the ATSW Complex. Whenever possible, capture sites would be located in previously disturbed areas. Capture techniques would be the helicopter-drive trapping method and/or helicopter-roping from horseback. Bait trapping may also be utilized on a limited basis, as needed.
- An Animal and Plant Inspection Service (APHIS) veterinarian will be on-site, as needed, to examine animals and make recommendations to the BLM for care and treatment of wild horses in accordance with Washington Office Instruction Memorandum No. 2009-041 (*Euthanasia of Wild Horses and Burros for Reasons Related to Health, Handling and Acts of Mercy*). On-site inspection by an APHIS veterinarian is required for any animals to be transported across State borders without testing for Equine Infectious Anemia (EIA) prior to transport. (A copy of this IM can be reviewed upon request at either the RFO or RSFO.)
- Selection of animals for removal and/or release would also be guided by the BLM *Gather Policy, Selective Removal Criteria, and Management Considerations for Reducing Population Growth Rates* (Washington Office IM 2010-135). (A copy of this IM can be reviewed upon request at either the RFO or RSFO.)
- All wild horses outside of the HMAs would be removed.

Descriptions of Alternatives Considered In Detail

2.1 Alternative A: Proposed Action – Remove Excess Animals to Lower Limit of AML range with Fertility Control and Adjustment of Sex Ratios (favoring stallions 60:40)

The Proposed Action is to gather approximately 80% (or about 1,951 wild horses) of the estimated current population (2,438 horses) in October 2010. The estimated current wild horse population within the ATSW Complex is based on the July 2009 flights and adjusted for one year's foal crop. Of the animals gathered, approximately 1,577 excess wild horses would be removed and shipped to BLM holding facilities in Rock Springs, Wyoming, and Canon City, Colorado, where they will be prepared for adoption and/or sale to qualified individuals and/or long-term holding. The projected population remaining on the range following the gather would be about 861 wild horses. Gather operations are anticipated to take between six and eight weeks for completion.

The 861 wild horses remaining in the ATSW Complex would include approximately 374 wild horses that were returned post-gather after processing. Approximately 274 would be studs and 100 would be fertility control treated mares. After selection and treatment, these horses will be released into the immediate gather area. All the mares released would be subject to fertility control experimentation research protocol with a two-year treatment of Porcine Zona Pellucida (PZP). Fertility control would be conducted in accordance with Standard Operating Procedures as described in Appendix III (SOPs Fertility Treatment).

2.2 Alternative B: Remove Excess Animals to Lower Limit of AML Range

The Proposed Action is to gather about 80% of the current estimated wild horse population based on the July 2009 flights and adjusted for one year's foal crop (2,438 horses), or about 1,951 wild horses in October 2010. Of the animals gathered, approximately 1,577 excess wild horses would be removed and shipped to the BLM holding facilities in either Rock Springs, Wyoming, or Canon City, Colorado, where they will be prepared for adoption and/or sale to qualified individuals or long-term holding. The projected population remaining on the range following the gather would be about 861 wild horses. Gather operations are anticipated to take between six and eight weeks for completion.

Unlike the Proposed Action, mares returned following the gather to the ATSW Complex would not be subject to fertility control experimentation research and the sex ratios would not be adjusted in favor of stallions (60:40). All other capture and handling activities would be the same as described for the Proposed Action.

2.3 Alternative C: No Action Alternative – No Gather or Removal

Under the No Action Alternative, a gather to remove excess wild horses within the project area would not take place in October 2010. There would be no active management to control the size of the wild horse populations at this time. However, existing management including monitoring would continue.

The Wild Free-Roaming Horses and Burro Act requires the BLM to protect the range from deterioration associated with overpopulation of wild horses, and to preserve and maintain a thriving natural ecological balance and multiple use relationship. The No Action Alternative would not comply with the 1971 Act or with applicable federal regulations and Bureau policy; nor would it comply with Wyoming's Rangeland Health Standards and Guidelines for Livestock Grazing Management. It is included as a baseline for comparison with the action alternatives, as required under NEPA.

2.4 Alternatives Considered but Eliminated from Detailed Analysis

Change the Current Established AMLs

AML for the Adobe Town HMA was established based on in-depth analysis of monitoring data. The AML was established May 1994 in the Great Divide Resource Area Wild Horse Herd Management Area Evaluation following intensive resource monitoring. The management range is 610 to 800 wild horses. The range condition and trend studies that were used in 1993 to determine the level of use (AML) of 700 horses were repeated in 2003-04 and revealed a consistent downward trend in range condition throughout the area from 1993 to 2003 due in part to drought and wild horse numbers above the established AML. The current AML for the Adobe Town HMA was reaffirmed in the Record of Decision and Approved Rawlins RMP (2008).

The Rock Springs Grazing Association and Wild Horses Yes entered into an historic agreement in 1979 which provided for the management of specific numbers of wild horses on the privately controlled lands and the contiguous public lands within the Rock Springs District (now the Rock Springs Field Office). The agreement was confirmed in a 1981 District Court Order. The Salt Wells Creek AML of 300 wild horses was established in the 1997 Green River Resource Management Plan with a management range of 251 to 365 adult horses based on this agreement. Deviating from existing policy, planning decisions, and agreements reached pursuant to the District Court Order are not considered options nor are they within the scope of this EA. Without the cooperation of the private land owners, the Salt Wells Creek, Adobe Town, White Mountain, and Divide Basin HMAs could be dissolved because the BLM cannot control wild horse movement on private lands.

Use of Bait and/or Water Trapping

An alternative considered by not carried forward for detailed analysis was the use of bait and/or water trapping (without the use of helicopter) as the exclusive gather method. This alternative was dismissed from detailed study for the following reasons: (1) the size of the area is too large for the use of this method (2) the presence of water sources on both private and public lands inside and outside the HMA boundaries would make it difficult to restrict wild horse access to selected water trap sites, and would extend the time required to remove excess wild horses; and (3) the aforementioned logistical difficulties would make it ineffective in meeting the purpose and need to maintain the AMLs in accordance with all applicable regulations and orders identified in Section 1.3.

Other Alternative Capture Techniques

This alternative includes capture methods other than helicopters to gather excess wild horse, which were suggested through public comment. As no specific methods were suggested, the BLM identified chemical immobilization, net gunning, and wrangler/horseback drive trapping as potential methods for gathering wild horses. Chemical immobilization is a very specialized technique and strictly regulated. Currently, the BLM does not have sufficient expertise to implement this method and it would be impractical to use given the size of the HMAs, access limitations and the approachability of the wild horses. Net gunning techniques normally used to capture big game also rely on helicopters and are therefore not a consideration as an alternative to the helicopter-capture method. Use of wrangler on horseback drive-trapping to remove excess wild horses can be fairly effective on a small scale; however, due to the number of excess wild horses to be removed, the large geographic area (2,575 square miles) of the HMAs, and the approachability of the wild horses; this technique would be ineffective and impractical to meet the purpose and need. Horseback drive-trapping is also very labor intensive and can be very harmful to the domestic horses and wranglers during the gather operations. For these reasons, the

identified capture method alternatives were eliminated from further consideration and are not analyzed in detail for the proposed action and alternatives.

No Gather, Fertility Control Only

An alternative considered but not carried forward for detailed analysis was the use of fertility control methods only and no wild horse gather. This alternative does not meet the purpose and need to maintain the AMLs, as the existing population of wild horses within the HMAs is currently above the established AMLs and excess wild horses need to be removed in compliance with applicable regulations described in Section 1.3.

Incremental Approach for Wild Horse Removals

An alternative considered but not carried forward for detailed analysis was the incremental approach of removing excess wild horses from the HMAs over a period of time. This alternative does not meet the purpose and need to maintain the AMLs, as the existing population of wild horses within the HMAs is currently above the established AMLs and excess wild horses need to be removed in compliance with applicable regulations described in Section 1.3. Due to the number of excess wild horses to be removed and the large geographic area of the HMAs, this technique would be ineffective and impractical to meet the purpose and need.

Remove Horses From Salt Wells Creek HMA Only

An alternative considered but not carried forward for detailed analysis was removal of excess wild horses from the Salt Wells Creek HMA only and conduct no gather for the Adobe Town HMA. This alternative does not meet the purpose and need to maintain the AMLs, as the existing population of wild horses within both the Salt Wells Creek and the Adobe Town HMAs are currently above the established AMLs and excess wild horses need to be removed in conformance with the RMPs and compliance with applicable regulations described in Section 1.3. Additionally, there are no physical or geographical boundaries to restrict movement of wild horses between the two HMAs; therefore, the BLM has been managing the two HMAs under joint cooperative management since 2003.

3.0 Description of the Affected Environment and Environmental Consequences

3.1 Introduction

This section of the environmental assessment briefly discusses the relevant components of the human and natural environment which would be either affected or potentially affected by the proposed action and alternatives. Direct impacts are those that result from management actions while indirect impacts are those that exist once the management action has occurred. By contrast, cumulative impacts result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Analysis related to maintaining the AMLs for the Adobe Town HMA and the Salt Wells Creek HMA is tiered to the Final EISs for the Rawlins RMP (2008, p. 139-142) and Green River RMP (1996, p. 345-346), respectively.

Because of the proposed location of the gathering facilities, the following elements are not present and will not be analyzed further: Environmental Justice, Floodplains, Waste (Hazardous or Solid), Prime or Unique Farmlands, Water Quality and Wild and Scenic Rivers.

The area covered by this analysis is within the jurisdiction of the BLM Rawlins and the Rock Springs Field Offices, Wyoming. It is bordered on the south by the Colorado state line, on the east by Wyoming Highway 789, on the north by Interstate Highway 80, and on the west by the Flaming Gorge Reservoir. As shown in Table 1, over two and one half million acres of public, State, and private lands are included in this analysis (or 2,575 square miles, which is 531 square miles larger than the state of Delaware). Figure 1 portrays the analysis area. The majority of the private land holdings in the Salt Wells Creek HMA are in a checkerboard land pattern with every other section alternating between public and private.

Elevation ranges from 6,470 feet along Sand Creek Wash, to over 8,000 feet on Black's Butte. Summers are hot, and winters can range from mild to bitterly cold. Annual precipitation ranges from less than 7 to more than 12 inches per year. About half of the precipitation falls during the growing season from April through June, with the remainder coming in high intensity summer thunderstorms. Much of the precipitation from summer thunderstorms runs off in numerous drainages. Some of this water is captured in reservoirs or pits and is the primary source of water for wild horses, livestock, and wildlife.

Resource Issues Present or Potentially Affected

The resources that are present and may have potential to be affected by the proposed action or the alternatives include: Wildlife, Vegetation, Soils, Watershed, Recreation, Wild Horses, Wilderness, Livestock Grazing, and Heritage Resources.

3.2 Wild Horses

Affected Environment

The Adobe Town – Salt Wells Creek Complex consists of two herd management areas: Adobe Town and Salt Wells Creek. The Adobe Town HMA, managed by the Rawlins Field Office, is approximately 448,000 acres in size. The Salt Wells Creek HMA, managed Rock Springs Field Office, is approximately 1,170,708 acres of which 690,400 acres are public and the remaining 480,308 acres are privately controlled. The majority of the private land holdings in the Salt Wells Creek HMA are in a checker board land pattern with every other section alternating between public and private owned or controlled land. This land status pattern stems back to the land grants given to the railroad companies (in this case, the Union Pacific Railroad Company) to develop transportation corridors in the west. The Rock Springs Grazing Association is currently in control of a majority of the private lands in the checker board within the Salt Wells Creek HMA and a portion of Adobe Town HMA.

Historically, the wild horses residing within the ATSW Complex have had free and fairly unrestricted movement between the Adobe Town and Salt Wells Creek HMAs. Based on past inter-movement of animals, the wild horses residing in the majority of the Complex (east of State Highway 430) have similar characteristics and genetic makeup. In 2003, an increased level of coordination of management activities and objectives was entered into for the Adobe Town and Salt Wells Creek HMAs. Past capture, census, genetic health, and distribution data (BLM unpublished) indicate movement and interchange among the horses of these two HMAs.

Key monitoring areas for measuring forage utilization were established in the spring of 2010 in the uplands area near the Brady Plant in the Rock Springs Grazing Allotment and Mellor Mountain in the Mellor Mountain Grazing Allotment, both within the Salt Wells Creek HMA. The Brady Plant Key Area has shown heavy to severe utilization and the Mellor Mountain Key Area has shown heavy utilization by wild horses.

The AML for the Adobe Town HMA was a specifically defined population range that would result in an average population of 700 adults over time. The AML was established May 1994 in the Great Divide

Resource Area Wild Horse Herd Management Area Evaluation following intensive resource monitoring. The management range is 610 to 800 wild horses. The range condition and trend studies that were used in 1993 to determine the level of use (AML) of 700 horses were repeated in 2003-04 and revealed a consistent downward trend in range condition throughout the area from 1993 to 2003. Other factors (which may include AML not achieved, extended drought, other combined grazing uses) need to be analyzed to determine the cause of the downward trend in ecological condition in the Adobe Town HMA. Range use and the determination of the AML are land use management decisions and are not analyzed in this EA.

The current projected population for the Adobe Town HMA (including colts of 2010) is 1,463 wild horses with approximately 60-80 horses known to occupy the area outside the Adobe Town HMA known as I-80 South. These numbers are based upon direct count of horses from the BLM July 2009 flights conducted in accordance with Washington Office IM 2010-057.

The Rock Springs Grazing Association and Wild Horses Yes entered into an historic agreement in 1979 which provided for the management of specific numbers of wild horses on the privately controlled lands and the contiguous public lands within the Rock Springs Field Office (then District). The Salt Wells Creek AML of 300 wild horses was established in the 1997 Green River Resource Management Plan with a management range of 251 to 365 adult horses. Without the cooperation of the private land owners, three HMAs in the Rock Springs Field Office could be dissolved because of the difficulty in managing the areas based on the land ownership pattern.

The current population for the Salt Wells Creek HMA portion of the Complex is currently projected at 975 wild horses (including colts of 2010) based the direct count of horses from the July 2009 flights conducted in accordance with Washington Office IM 2010-057.

Wild horses were last removed from the ATSW Complex in January 2007 when 918 horses were captured and 844 horses were removed and in August of 2007 when 171 horses were caught and removed from outside the Adobe Town HMA.

The low range AML of 861 wild horses should eliminate any potential for inbreeding depression to occur. Baseline genetic variability data was collected in 2003 for both HMAs within the ATSW Complex. The blood samples were analyzed by Dr. E. Gus Cothran, Department of Veterinary Science, University of Kentucky. His conclusions and recommendations regarding genetic variability in the Adobe Town and Salt Wells Creek herds are partially summarized as follows:

“Genetic variation in the Adobe Town herd is fairly high. All measures are above the feral average. Allelic diversity is particularly high. The high number of variants suggests a herd of mixed origins which could include some Spanish breed ancestry. The pattern of variation is one often seen in populations that have been through a bottleneck, however, the population size does not give an indication of a bottleneck. Another possibility for the pattern observed is that the herd has a widely mixed breed origin (supported by the allelic diversity) and possibly is having regular genetic input from outside the herd. No action is needed (to maintain genetic variation). The AML for this herd is large and there should be no problems with maintenance of genetic variation.” (Cothran 2004).

“Genetic variability of the Salt Wells Creek herd is high. The high variation is likely due to a mixed breed origin for the herds and high population size. The herds show no clear relationship to any domestic horse breed groups although highest similarity is to Iberian horse breeds followed by North American breeds. The two herds appear likely to have genetic interchange with each other. There also are differences in the two herds but these

could be due to the small sample size.” “No action is needed. Genetic variation is high and the AML is high enough to prevent drastic loss of variation.” (Cothran, 2004)

Additional genetic samples will be collected from wild horses released back to the HMAs for current genetic data analysis.

Environmental Consequences

The WinEquus program, developed by Dr. Steven Jenkins at the University of Nevada at Reno was designed to assist the BLM evaluate various management plans and possible outcomes for management of wild horses. More information about the model is available upon request from the RFO or RSFO.

Population modeling was completed for the three alternatives to analyze possible differences that could occur to the wild horse populations between alternatives. Modeling was completed for the ATSW Complex. The modeling may not necessarily reflect actual on-the-ground results. One objective of the modeling was to identify if any of the alternatives “crash” the population or cause extremely low population numbers or growth rates. Minimum population levels and growth rates were found to be within reasonable levels and adverse impacts to the population are not likely. When comparing the differences between the three alternatives, the No Action alternative would result in the greatest population number with an average population of 6,246. According to the modeling, the proposed action (Alternative A) results in the lowest average population of 1,415 while Alternative B resulted in an average population of 1,581 wild horses. Graphic and tabular results are displayed in detail in Appendix IV (Wild Horse Population Modeling).

Effects Common to Alternative A and Alternative B

Over the past 35 years, various effects to wild horses as a result of gather activities have been observed. Under the Proposed Action, effects to wild horses would be both direct and indirect, occurring to both individual horses and the population as a whole.

The BLM has been conducting wild horse gathers since the mid-1970s. During this time, methods and procedures have been identified and refined to minimize stress and affects to wild horses during gather implementation. The SOPs in Appendix B would be implemented to ensure a safe and humane gather occurs and would minimize potential stress and injury to wild horses.

In any given gather, gather-related mortality averages only about one half of one percent (0.5%), which is very low when handling wild animals. Approximately, another six-tenths of one percent (0.6%) of the captured animals could be humanely euthanized due to pre-existing conditions and in accordance with BLM policy (GAO-09-77). These data affirm that the use of helicopters and motorized vehicles has proven to be a safe, humane, effective, and practical means for the gather and removal of excess wild horses (and burros) from the public lands. As a further measure, it is BLM policy to limit the use of helicopters to assist in the removal of wild horses to July 1 through February 28. The use of helicopters to assist in the capture of wild horses is prohibited during the six weeks before and the six weeks that follow the peak of foaling. The peak of foaling falls within about a two week period during mid-April to mid-May for most wild horse herds. Therefore, the use of helicopters to capture wild horses is prohibited during March 1-June 30, unless an emergency situation exists.

Individual, direct effects to wild horses include the handling stress associated with the roundup, capture, sorting, handling, and transportation of the animals. The intensity of these effects varies by individual, and is indicated by behaviors ranging from nervous agitation to physical distress. When being herded to trap site corrals by the helicopter, injuries sustained by wild horses may include bruises, scrapes, or cuts to feet, legs, face, or body from rocks, brush or tree limbs. Rarely, wild horses will encounter barbed wire

fences and will receive wire cuts. These injuries are very rarely fatal and are treated on-site until a veterinarian can examine the animal and determine if additional treatment is indicated.

Other injuries may occur after a horse has been captured and is either within the trap site corral, the temporary holding corral, during transport between facilities, or during sorting and handling. Occasionally, horses may sustain a spinal injury or a fractured limb but based on prior gather statistics, serious injuries requiring humane euthanasia occur in less than 1 horse per every 100 captured. Similar injuries could be sustained if wild horses were captured through bait and/or water trapping, as the animals still need to be sorted, aged, transported, and otherwise handled following their capture. These injuries result from kicks and bites, or from collisions with corral panels or gates.

To minimize the potential for injuries from fighting, the animals are transported from the trap site to the temporary (or short-term) holding facility where they are sorted as quickly and safely as possible, then moved into large holding pens where they are provided with hay and water. On many gathers, no wild horses are injured or die. On some gathers, due to the temperament of the horses, they are not as calm and injuries are more frequent. Overall, direct gather-related mortality averages less than 1%. During the last ATSW Complex gather in January of 2007, no horses died due to gather operations; however, two horses were euthanized due to poor body condition, which was less than 1% of the total horses gathered.

Indirect individual effects are those which occur to individual wild horses after the initial event. These may include miscarriages in mares, increased social displacement, and conflict in studs. These effects, like direct individual effects, are known to occur intermittently during wild horse gather operations. An example of an indirect individual impact would be the brief 1-2 minute skirmish between older studs which ends when one stud retreats. Injuries typically involve a bite or kick with bruises which do not break the skin. Like direct individual effects, the frequency of these effects varies with the population and the individual. Observations following capture indicate the rate of miscarriage varies, but can occur in about 1 to 5% of the captured mares, particularly if the mares are in very thin body condition or in poor health.

A few foals may be orphaned during a gather. This can occur if the mare rejects the foal, the foal becomes separated from its mother and cannot be matched up following sorting, the mare dies or must be humanely euthanized during the gather, the foal is ill or weak and needs immediate care that requires removal from the mother, or the mother does not produce enough milk to support the foal. On occasion, foals are gathered that were previously orphaned on the range (prior to the gather) because the mother rejected it or died. These foals are usually in poor, unthrifty condition. Every effort is made to provide appropriate care to orphan foals. Veterinarians may be called to administer electrolyte solutions or orphan foals may be fed milk replacer as needed to support their nutritional needs. Orphan foals may be placed in a foster home in order to receive additional care. Despite these efforts, some orphan foals may die or be humanely euthanized as an act of mercy if the prognosis for survival is very poor.

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 A). Animals that are euthanized for non-gather related reasons include those with old injuries (broken or deformed limbs) that cause lameness or prevent the animal from being able to maintain an acceptable body condition (greater than or equal to Body Condition Score (BCS) 3); old animals that have serious dental abnormalities or severely worn teeth and are not expected to maintain an acceptable body condition, and wild horses that have serious physical defects such as club feet, severe limb deformities, or sway back. Some of these conditions have a causal genetic component and the animals should not be returned to the range to avoid amplifying the incidence of the problem in the population.

Wild horses not captured may be temporarily disturbed and moved into another area during the gather operation. With the exception of changes to herd demographics from removals, direct population affects have proven to be temporary in nature with most, if not all, affects disappearing within hours to several days of release. No observable effects associated with these affects would be expected within one month of release, except for a heightened awareness of human presence.

It is not expected that genetic health would be negatively impacted by the Proposed Action. The AML range of 891-1,165 should provide for acceptable genetic diversity.

By maintaining wild horse population size within the AML, there would be a lower density of wild horses across the HMA, reducing competition for resources and allowing wild horses to utilize their preferred habitat. Maintaining population size within the established AML would be expected to improve forage quantity and quality and promote healthy, self-sustaining populations of wild horses in a thriving natural ecological balance and multiple use relationship on the public lands in the area. Deterioration of the range associated with wild horse overpopulation would be avoided. Managing wild horse populations in balance with the available habitat and other multiple uses would lessen the potential for individual animals or the herd to be affected by drought, and would avoid or minimize the need for emergency gathers, which would reduce stress to the animals and increase the success of these herds over the long term.

Transport, Short-Term Holding, and Adoption (or Sale) Preparation

About 1,577 excess horses would be removed. Animals would be transported from the capture/temporary holding corrals to the designated BLM short-term holding corral facility(s). From there, they would be made available for adoption or sale to qualified individuals or to long-term (grassland) pastures.

Wild horses selected for removal from the range are transported to the receiving short-term holding facility in a straight deck semi-trailers or goose-neck stock trailers. Vehicles are inspected by the BLM COR or PI prior to use to ensure wild horses can be safely transported and that the interior of the vehicle is in a sanitary condition. Wild horses are segregated by age and sex and loaded into separate compartments. A small number of mares may be shipped with foals. Transportation of recently captured wild horses is limited to a maximum of 8 hours. During transport, potential affects 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 be seriously injured or die during transport.

Upon arrival at the short-term holding facility, 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 examines each load of horses and 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 feet, and other severe congenital abnormalities) would be humanely euthanized using methods acceptable to the American Veterinary Medical Association (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 as indicated. Recently captured wild horses, generally mares, in very thin condition may have difficulty transitioning to feed. Some of these animals are in such poor condition that it is unlikely they would have survived if left on the range. Similarly, some mares may lose their pregnancies. Every effort is taken to help the mare make a quiet, low stress transition to captivity and domestic feed to minimize the risk of miscarriage or death.

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,

drawing a blood sample to test for equine infections anemia, vaccination against common diseases, castration, and de-worming. During the preparation process, potential affects to wild horses are similar to those that can occur during handling and transportation. Serious injuries and deaths from injuries during the preparation process are rare, 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% per year (GAO-09-77, Page 51), and includes animals euthanized due to a pre-existing condition; animals in extremely poor condition; animals that are injured and would not recover; animals which are unable to transition to feed; and animals which are seriously injured or accidentally die during sorting, handling, or preparation.

Adoption or Sale with Limitations, and Long-Term Pastures

Adoption applicants are required to have at least a 400 square foot corral with panels that are at least six feet tall for horses over 18 months of age. Applicants are required to provide adequate shelter, feed, and water. The BLM retains title to the horse for one year and the horse and the facilities are inspected to assure the adopter is complying with BLM requirements. After one year, the adopter may take title to the horse, at which point the horse becomes the property of the adopter. Adoptions are conducted in accordance with 43 CFR 5750.

Potential 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 three times. The application also specifies that all buyers are not to re-sell the animal to slaughter buyers or anyone who would sell the animal to a commercial processing plant. Sales of wild horses are conducted in accordance with Bureau policy.

Between 2007 and 2009, nearly 62% of excess wild horses or burros were adopted and about 8% were sold with limitation (to good homes) to qualified individuals. Animals 5 years of age and older are generally transported to long-term pastures (LTPs).

Potential effects to wild horses from transport to adoption, sale or LTPs are similar to those previously described. One difference is that when shipping wild horses for adoption, sale or LTP, animals may be transported for a maximum of 24 hours. Immediately prior to transportation, and after every 18-24 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 25 pounds of good quality hay per horse with adequate bunk space to allow all animals to eat at one time. Most animals are not shipped more than 18 hours before they are rested. The rest period may be waived in situations where the travel time exceeds the 24-hour limit by just a few hours and the stress of offloading and reloading is likely to be greater than the stress involved in the additional period of uninterrupted travel.

LTPs are designed to provide excess wild horses with humane, 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 existing adoption or sale demand (because of age or other factors), are currently located on private land pastures in Iowa, Kansas, Oklahoma, and South Dakota. Located in mid or tall grass prairie regions of the United States, these LTPs are highly productive grasslands as compared to more arid western rangelands. These pastures comprise about 256,000 acres (an average of about 8-10 acres per animal). The majority of these animals are older in age.

Mares and castrated stallions (geldings) are segregated into separate pastures except one facility where geldings and mares coexist. Although the animals are placed in LTPs, they remain available for adoption

or sale to qualified individuals who are interested in adopting or purchasing a larger number of animals. No reproduction occurs in the LTPs, but foals born to pregnant mares are gathered and weaned when they reach about 8-10 months of age and are then shipped to short-term facilities where they are made available adoption. Handling by humans is minimized to the extent possible although regular on-the-ground observation and weekly counts of the wild horses to ascertain their numbers, well-being, and safety are conducted. A very small percentage of the animals may be humanely euthanized if they are in very thin condition and are not expected to improve to a BCS of 3 or greater due to age or other factors. Natural mortality of wild horses in LTPs 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). The savings to the American taxpayer which results from contracting for LTH pastures averages about \$4.45 per horse per day as compared with maintaining the animals in short-term holding facilities.

Euthanasia and Sale without Limitation

While humane euthanasia and sale without limitation of healthy horses for which there is no adoption demand is authorized under the WFRHBA, Congress prohibited the use of appropriated funds between 1987 and 2004 and again in 2010 for this purpose.

Impacts of Alternative A Under the Proposed Action, the post-gather population of wild horses for the Complex would be about 861. The post-gather numbers represent the combined lower limit of the AML range.

Under this alternative, all mares (~100) gathered and then selected for release back to the HMA would be treated with a two-year application of PZP prior to their release. The treated mares would equal approximately 30% of the post-gather mare population. Each of these mares, if pregnant, would be expected to foal normally during the 2011 foaling season. The PZP treatment would be expected to slow population growth starting in 2012 and be effective for 2-3 years following treatment. The treated mares would not be expected to foal the next 1 or 2 years following treatment. Therefore, wild horse numbers would be expected to exceed the upper limit of the AML range in year 4 following the gather (about 2014).

Mares treated with fertility control would be studied as part of ongoing fertility control research. For more information about, refer to: <http://www.fort.usgs.gov/WildHorsePopulations/default.asp>

Mares receiving the fertility control inoculation would experience increased levels of stress from additional handling while they are being inoculated and freeze marked. There would be potential additional indirect impacts to animals at the isolated injection site following the administration of the fertility control vaccine. Injection site injury associated with fertility control treatments are extremely rare in treated mares, and may be related to experience of who is administering the fertility control. For monitoring purposes, wild horses treated with the PZP vaccine would be identified by the freeze-mark "HB" on the left hip.

Impacts of Alternative B Under Alternative B, the post-gather population of wild horses for the Complex would be about 861. The post-gather numbers represent the combined lower limit of the AML range.

Under this alternative, all released mares would foal normally over the next 3- to 4-year period. Based on a normal projected population increase (25%), wild horse numbers are expected to exceed the upper limit of the AML range in Year 3 following the gather (about 2013).

Achieving the combined lower limit of AML for wild horses in the project area would allow for recovery of any vegetation that has been moderately to heavily utilized. Additional stress to the wild horses due to the fertility control implementation would not occur since fertility control would not be applied.

Impacts of Alternative C Under this alternative, no wild horses would be removed at this time, nor would fertility control treatment be implemented. As a result, wild horses would not be subject to any individual direct or indirect impacts described in the Proposed Action as a result of a gather operation. Following foaling in 2010, wild horse populations would be expected to grow to about 2,438 wild horses. Projected population increases would result in minimal potential for inbreeding over the long term, but would be expected to result in further deterioration of the range, and eventually lead to long-term impacts to both the health of the rangeland and the wild horse herds. Competition for the available forage and water resources would continue to increase as growing numbers of wild horses compete for the available forage and water resources. Lactating mares, foals, and older animals would be affected most severely. Social stress would also be expected to increase among animals as they fight to protect their position at scarce forage and water sources. Potential for injuries to all age classes of animals would be expected to increase.

Areas closest to the water would experience severe utilization and degradation. Over time, the animals would also deteriorate in body condition as a result of declining forage and increasing distances traveled to and from water to find forage. As competition for forage between livestock, wildlife, and wild horses increases, livestock operators may choose to take nonuse. The maintenance of livestock water sources would decrease, reducing the availability and reliability of many water sources currently used by wild horses. Many wild horses, especially mares with foals, would be put at risk through the following summer due to a lack of forage and water, or would be expected to move outside the HMA boundaries in search of food and water, potentially risking injury/death of animals and resulting in increasing damage to public, private, and State lands.

3.3 Wildlife, Threatened and Endangered Species, Special Status Species, and Migratory Birds

Affected Environment

The mosaic of plant communities and topographic features that are found throughout the ATSW Complex supports a wide variety of wildlife species that use the various habitats for resting, courtship, foraging, travel, supplies of food and water, thermal protection, escape cover and reproduction.

A variety of wildlife species occur or have the potential to occur in the project area including mule deer, pronghorn antelope, elk, moose, coyote, red fox, bobcat, desert cottontail, Wyoming ground-squirrel, horned lark, raven, magpie, and common nighthawk. Mule deer, elk and antelope utilize the project area year-round and approximately 2-20% of the project area is identified as crucial winter range for these species. For a complete description of species and habitats found within BLM jurisdiction in the ATSW Complex, see Chapter 3 of the Final EIS for the Rawlins RMP (2006, pp. 143–150) and Chapter 3 of the Final EIS for the Green River RMP (1996, pp. 347-351). A summary of the wildlife resources identified as being potentially impacted by the Proposed Action is provided below.

Threatened, Endangered, Proposed and Candidate Species

Two federally designated threatened, endangered, proposed, or candidate animal species and one plant species have the potential to be present within the project area.

Ute ladies'-tresses (Threatened) Potential habitat may exist in the project area; however project activities will not take place in suitable riparian habitat for this species. Therefore this action will result in no impacts to Ute ladies' tresses and this species will not be addressed further in the document.

Black-footed Ferret (Endangered) Potential ferret habitat (white-tailed prairie dog towns) exists in the project area. Past surveys conducted in relation to other development activities in the Salt Wells Creek

HMA have not recorded black-footed ferret. Horse trap sites and staging areas associated with gathers are never placed in prairie dog towns due to the possibility of horses breaking their legs in the burrows. This action will have no impacts to black-footed ferrets and this species will not be addressed further in the document.

Greater Sage-Grouse (Candidate) A status review by the US Fish and Wildlife Service was recently completed for the greater sage-grouse (*Centrocercus urophasianus*) to determine if it warrants listing under the ESA. The status review determined that the greater sage-grouse (sage-grouse) warrants protection under the ESA but was precluded from listing in favor of species that are more imperiled. It is currently listed as a candidate species as well as a BLM Sensitive Species.

BLM records indicate that there are approximately 4 greater sage-grouse leks and/or associated nesting habitat within or adjacent to the Adobe Town HMA, and approximately 30 greater sage-grouse leks and/or associated nesting habitat within or adjacent to the Salt Wells Creek HMA. In accordance with BLM policies and guidance, the following timing stipulations and surface disturbance restrictions will be used to determine the location of the trap sites during the gather:

- No surface disturbing activities or surface occupancy within a 0.6-mile radius of the perimeter of occupied or undetermined sage-grouse leks inside Core areas.
- No surface disturbing activities within 0.25-mile radius of the perimeter of occupied or undetermined sage-grouse leks outside Core areas.
- No surface disturbing and/or disruptive activities or surface occupancy will occur within sage-grouse nesting habitat from March 15 through July 15.
- No surface disturbing and/or disruptive activities in mapped or modeled sage-grouse winter habitats/concentration areas that support Core area populations November 15-March 14.

Gray Wolf (Experimental population) The gray wolf is an experimental population throughout Wyoming. There have been creditable sightings of grey wolves 50 miles north of the HMAs; however, no confirmed sightings within either HMA. Therefore, the proposed action and alternatives will not impact the continued existence of the gray wolf and this species will not be further addressed in this document.

Sensitive Species Wildlife

A number of animal species potentially present in the project area have been accorded “sensitive species” status (IM-2001-040). Sensitive mammal species that have the potential to occur, or that may have habitat located within the project area include the Wyoming pocket gopher, pygmy rabbit, swift fox, dwarf shrew, spotted bat, long-eared myotis, fringed myotis, Townsend’s big-eared bat, and white-tailed prairie dog.

Sensitive bird species that have the potential to occur in the area, or may have habitat located within the area include the ferruginous hawk, mountain plover, peregrine falcon, greater sage-grouse, long-billed curlew, burrowing owl, sage thrasher, loggerhead shrike, Brewer’s sparrow, sage sparrow, Baird’s sparrow, yellow-billed cuckoo, and bald eagle.

Mountain plover have been recorded in the project area, and potential mountain plover breeding/nesting habitat exists throughout the Adobe Town and Salt Wells Creek HMAs.

Other sensitive species that have the potential to occur in the area, or may have habitat located within the area include the: Great Basin spadefoot toad, Northern leopard frog, the roundtail chub, leatherside chub, blue head sucker, flannel mouth sucker, and Colorado River cutthroat trout.

Sensitive plants that have the potential to occur within the project area include the Nelson's milkvetch, Cedar Rim thistle, Ownbey's thistle, and Gibben's penstemon. Habitats for these plants are described later in the document.

Environmental Consequences

Impacts of Alternative A Trap sites will be constructed and operated under the recommendations of a wildlife biologist to avoid adverse impacts to wildlife, including known sage-grouse leks and winter concentration areas and big game crucial winter ranges. Appendix VI provides maps of known habitat locations. The Field Offices are following management procedures within crucial winter habitats by requesting winter use exceptions and consulting with the Wyoming Game and Fish Department.

Wildlife adjacent to trap sites would be temporarily displaced during capture operations by increased activity of trap setup, helicopters and vehicle traffic but in most cases this displacement should only last 2-3 days in each trap area. Reduction of wild horse numbers would result in reduced competition for forage and water resources between wild horses and wildlife. The short-term stress and displacement during the gather operations should result in long-term benefits in improving habitat condition. Disturbance associated with wild horses along stream bank riparian habitat and adjacent upland habitat would be reduced.

Impacts of Alternative B Under Alternative B, impacts associated with capture and removal operations are expected to be similar to the proposed action. The effects of just removing the excess animals would be of a shorter duration due to increased population growth rates without the implementation of the fertility control protocol and sex ratio adjustment in favor of stallions (60:40) as in the Proposed Action.

Impacts of Alternative C Wildlife would not be temporarily displaced or disturbed under the No Action Alternative. However, there would be continued and increased competition with wild horses for limited water and forage resources. This competition would increase as wild horse numbers continued to increase annually. Although diet overlap is highest between wild horses and elk, fecal analysis data shows higher wild horse use of shrubs during the winter, which would also overlap more with the diets of antelope and mule deer. Wild horses are aggressive around water sources and some wildlife species may not be able to compete successfully. The continued competition for limited resources would lead to increased stress or dislocation of native wildlife species. Although wildlife may move to locations outside the ATSW Complex, these areas are likely already occupied, which may result in long-term reductions in wildlife populations. Additionally, increased competition between wild horses and wildlife species for the new growth important for plants to make and store carbohydrates and for promoting long-term vegetation recovery, could result impact vegetation recovery and encourage non-native or invasive plants to become established, displacing more desirable species used by wildlife. Residual nesting cover needed by greater sage-grouse and other nesting songbirds would not be adequate to hide and protect nests from predation. The long-term decline in vigor and cover or even the loss of native vegetation would reduce wildlife populations and diversity, and lower the likelihood of providing suitable habitat in order to support the Wyoming Game and Fish Department population objectives for big game species in this area.

3.4 Vegetation, Soils, and Watershed

Affected Environment

There are a variety of vegetation types in the RFO and RSFO areas where wild horses can be found, both within and outside of wild horse HMAs. Vegetation types include: sagebrush, sagebrush/grass, saltbush, greasewood, desert shrub, juniper, grass, meadow, broadleaf trees, conifer, mountain shrub, half shrub and perennial forbs, and badlands. The predominant vegetation type is sagebrush/grass.

Plant communities are very diverse in this large area, reflecting the diversity in soils, topography, and geology found there. The high-elevation, cold-desert vegetation of the project area is composed predominately of Wyoming big sagebrush/grass and Gardner saltbush vegetation communities. Other plant communities present are: desert shrub, grassland, mountain shrub, juniper woodlands, and a very few aspen woodlands. Needle-and-thread, Indian ricegrass, bluebunch wheatgrass, western wheatgrass, junegrass, basin wild rye, sandhill muhly, Canby and little bluegrass, and threadleaf sedge are the predominant grasses and grass-like species. Wyoming big sagebrush, black sagebrush, bud sage, birdsfoot sage, Gardner's saltbush, spiny hopsage, four-wing salt bush, greasewood, bitterbrush, winterfat, horsebrush, Douglas and rubber rabbitbrush, and true mountain mahogany are important shrub species for wildlife. Forbs are common and variable depending on the range site and precipitation zone.

Wild horses generally prefer perennial grass species as forage when available. Shrubs are more important during the fall and winter, and in drought years. The species of grasses preferred depends on the season of the year. Needle-and-thread and Indian ricegrass are most important during the winter and spring and wheatgrasses during the summer and fall.

The soils in the HMAs are highly variable in depth and texture as would be expected with the great variability in geology and topography that characterizes the area. Generally, the eastern third is a mix of sandy soils with high wind erosion potential and clayey soils with high water erosion potential, low bearing strength and varying amounts of salts. The western third has more loamy inclusions in the form of undulating uplands and alluvial complexes, with moderate erosion potential, while the middle third is a mixture of both. Virtually any soil condition that may be encountered in the region can be found somewhere within the HMAs. More specific soils information can be found in the draft soil surveys located in the BLM files in the RFO and RSFO.

The ATSW Complex is within both the Colorado River Basin and the Great Divide Basin (which has no drainage outlet). Management of the Colorado River Basin is guided by the interagency Salinity Compact, which in part prescribes goals and objectives for improving watershed management to reduce delivery of sediment and salinity into the Colorado River.

Special Status Plant Species

Special status plants are those species that are federally listed as threatened or endangered, proposed for listing, or candidates for listing under the Endangered Species Act (ESA). They also include species designated by each BLM State Director as sensitive and those listed or proposed for listing by a state in a category implying potential endangerment or extinction. The BLM is mandated to protect and manage threatened, endangered, candidate, proposed, and sensitive species and their habitats. The federally listed Ute ladies'-tresses has habitat in the area but surveys throughout the area have not found any populations. It occurs in riparian areas below 7,000 feet. The Wyoming special status plant species that grow, or have potential habitat in the project area are listed in Table 2. The Colorado butterfly plant and blowout penstemon plant are not located within, or habitat is not found, in the project area.

All existing sites for horse gather holding facilities have been surveyed for special status plant species and have been cleared. Any new gather holding facility sites would be surveyed and cleared before operations begin. There should not be any impacts to sensitive species as a result of implementing the Proposed Action beyond what occurs normally by wild horse movements through the area.

The over-utilization of range resources and subsequent reduction in vegetative ground cover promotes the establishment and spread of invasive species. The removal of excess wild horses could aid in the curtailment of the introduction and spread of noxious weeds and other invasive species.

No water depletions are associated with the proposed action; therefore, there should be no effect to any federal listed species present in the project area or downstream of the project area.

Table 2. Wyoming Special Status Plant Species

Common Name	Scientific Name	Habitat
Nelson’s milkvetch	<i>Astragalus nelsonianus</i>	Alkaline clay flats, shale bluffs and gullies, pebbly slopes, and volcanic cinders in sparsely vegetated sagebrush, juniper, & cushion plant communities at 5,200 – 7,600'
Cedar Rim thistle	<i>Cirsium aridum</i>	Barren, chalky hills, gravelly slopes, & fine textured, sandy-shaley draws at 6,700 - 7,200'
Ownbey’s thistle	<i>Cirsium ownbeyi</i>	Sparsely vegetated shaley slopes in sage & juniper communities at 6,440 - 8,400'
Gibbens’ penstemon	<i>Penstemon gibbensii</i>	Sparsely vegetated shale or sandy-clay slopes at 5,500-7,700'

Weeds

Federal agencies are directed by Executive Order 13112, Invasive Species, to expand and coordinate efforts to prevent the introduction and spread of invasive plant species (noxious weeds) and to minimize the economic, ecological, and human health impacts that invasive species cause. Weed populations are generally found along main dirt roads and two-tracks, in areas of livestock concentration, and in areas of intense recreational use. However, recent rangeland health monitoring has documented significant increases in invader species throughout the uplands. Motorized vehicles transporting seeds can be a major source of new infestations of weed species. The majority of the area has not been surveyed for noxious weeds. Noxious weed and other invasive species known to occur in the area include: Russian knapweed, hoary cress, houndstongue, Canada thistle, saltcedar, henbane, halogeton, Russian thistle, gumweed, goosefoot, and assorted mustards.

Sand Creek is the largest drainage in the Adobe Town area, which flows into the Yampa River and forms part of the Colorado River Basin. The soils are erodible and can be easily transported down drainages and into the Colorado River Basin. There is little riparian vegetation in the area; however, riparian areas are often considered the most productive sites in the region. There are numerous developed water sources such as stock tanks and reservoirs in the area.

Reclamation

Vegetation reclamation primarily is associated with natural gas development involving drilling pads, pipelines, and roads, as well as regional transmission pipelines for delivering natural gas to distant markets. Local gas development results in small, isolated disturbances that may or may not be fenced during reclamation activities. However, large regional pipelines result in long linear disturbances that are not fenced for vegetation recovery after reclamation has occurred.

Environmental Consequences

Impacts of Alternative A Impacts from the gather operations would be temporary and include trampling of some vegetation and soil compaction, particularly at the trap sites and holding locations.

The removal of excess wild horses from inside the project area and associated non-HMA areas would circumvent over-utilization of forage and further reduction in vegetative ground cover. The quantity of forage throughout the HMAs could be increased. Impacts from wild horses could diminish and be

beneficial. Vegetation composition, cover, and vigor could improve or be maintained near water sources where wild horses tend to congregate. An improvement in forage condition could lead to improved livestock distribution, which would prevent over-utilization and reduction in vegetation cover. Vegetative diversity and health should improve in areas where excess wild horses are removed. Adverse, short-term effects to vegetation and soils would occur at trap sites when gathers are being conducted. Vegetation would be disturbed by trap construction, and short-term trails and soil compaction may develop near and in the trap. Any vegetation removed would be minimal and localized.

Sheet and rill erosion would not exceed natural levels for the sites because the maintenance of AMLs would help ensure that a natural ecological balance would be maintained in and adjacent to the HMAs. Perennial vegetation would continue to experience season-long grazing pressure, which is not conducive to optimum plant health and vigor. Soil erosion and plant health would continue to be compromised around water locations with season-long grazing, but elsewhere impacts should be minimal. Watershed health should improve throughout much of the area.

Impacts of Alternative B Under Alternative B, the impacts associated with capture and removal operations are expected to be similar to the Proposed Action. Vegetation utilization would be similar to Alternative A with the expectation that wild horse population would be slightly larger without fertility control and sex ration adjustments.

Impacts of Alternative C Under Alternative C, wild horse population control would not be implemented and no gather operations impacts would occur. This alternative would allow wild horse populations to continue to increase within the HMAs and nearby areas. Perennial vegetation would continue to experience seasonal-long grazing pressure by wild horses, and in locations where seasonal grazing from livestock still occurred, which is not conducive to optimum plant health and vigor. Soil erosion and plant health would continue to be most greatly affected around water locations, and to a lesser extent away from water sources. As native plant health deteriorates and plant cover, vigor, and litter are reduced, soil erosion increases and a long-term loss of productivity occurs. More desirable species, such as Indian ricegrass, needleandthread, basin wildrye, and bottlebrush squirreltail, would be reduced or lost from the native plant communities. Plant species that are less desirable or more grazing resistant, such as sandhill muhly, western wheatgrass, little bluegrass, threadleaf sedge and weeds, would be increased in terms of their composition within the affected plant communities. However, in some cases there would just be a greater amount of bare ground. Similar results would occur in the isolated riparian habitat within the ATSWC, with sedges and grasses being replaced with Baltic rush, mat muhly, and weedy species. These impacts would also occur to a lesser extent outside the HMAs as horses move out in search of better forage or reliable water sources. Impacts would be cumulative over time and would affect areas beyond the HMA. Eventually, long-term rangeland health would be jeopardized. In the absence of healthy rangelands, animal health would eventually be impacted, leading to increasing numbers of wild horses in poor body condition and at risk of starvation or death without human intervention.

As vegetation cover and litter decrease and bare ground increases, soil erosion would increase in proportion to herd size and vegetation disturbance. The shallow desert top soils cannot tolerate much loss without an associated loss in productivity and thus the ability to support a native plant community. Invasive non-native species could increase following increased soil disturbance and reduced native plant vigor and abundance. The greater impacts would be around water locations. Watershed health throughout the area would continue to decrease, resulting in increased sediment and salinity delivery into the Colorado River drainage. These impacts would be cumulative over time.

The No Action alternative would allow wild horse populations to increase within the Adobe Town and Salt Wells Creek HMAs and nearby areas as no population management would take place. Populations of wild horses might eventually stabilize at very high numbers near what is known as their food-limited

ecological carrying capacity. At these levels, range conditions would deteriorate which would affect the native vegetation species as well as the habitat for special status species.

If wild horses are left unmanaged, damage to riparian areas may occur due to potential destruction of vegetation along streambanks. Erosion would increase and contribute to downstream sediment and salinity issues.

Invasive non-native plant species could continue to increase and invade new areas following increased soil disturbance and reduced native plant vigor and abundance. This would lead to both a shift in plant composition towards weedy species and a loss of productivity from loss of native species and the erosion of soils. There would also be increased impacts to areas outside the HMAs as horses move out in search of better forage. Impacts would be cumulative over time and would affect areas beyond the HMA.

Reclamation efforts would be less likely to succeed as wild horse populations increase. All pads would require fencing for initial recovery of vegetation, however, once fences are removed, grazing by wild horses would result in loss of vegetation and destabilization of soils similar to adjacent rangelands. Linear features would not likely be fenced due to both the cost and restrictions they would place on movement of wildlife, wild horses, and livestock, as well as the cost involved. These sites would likely receive grazing use that would reduce or eliminate desirable species and promote weeds, less palatable plant species and bare ground which would, in turn, lead to increased soil erosion and water runoff into drainages or adjacent rangelands.

3.5 Recreation

Affected Environment

The public enjoys seeing wild horses roaming free in the Rawlins and Rock Springs Field Office areas. Although demand is not high, some people (residents and nonresidents) make special trips to see wild and free-roaming horses in their natural environment. Two outfitters are permitted by BLM to conduct tours of the ATSW Complex.

Other recreation in the project area is quite dispersed with the greatest amount occurring during the hunting seasons for the various game animals and birds. Primary recreational activities other than hunting includes camping, hiking, rock hounding, photography, wildlife and wild horse viewing, off highway vehicle (OHV) use, and sightseeing.

Environmental Consequences

Impacts of Alternative A During gather operations, the areas immediately surrounding the trap and holding sites may be temporarily closed if necessary. Any areas closed would be reopened upon completion of the gather operations.

Implementation of the proposed action would be expected to improve rangeland health which would potentially enhance the aesthetic quality of recreational opportunities, such as hiking, wildlife viewing, and hunting. Opportunities to view wild horses in the ATSW Complex would continue, however, there would be fewer animals in better body condition available for viewing than at present. Fertility control treatment and sex ratio adjustment favoring stallions would be expected to slow population growth; opportunities to view mares with foals during the next 2-3 years would be reduced over the present situation. During the capture operation it may be necessary to temporarily close BLM roads to allow for the safe and humane capture of wild horses. This would be accomplished in a manner to impact the fewest recreational users as possible.

Impacts of Alternative B Under Alternative B, the impacts associated with capture and removal operations are expected to be similar to the proposed action. Fewer wild horses would be available for viewing during the first year following the gather. In years 2-3 following the gather, more mares with foals would be available for viewing than with the proposed action since fertility control and sex ratio adjustment favoring stallions would not be applied.

Impacts of Alternative C Where horse numbers increased, certain kinds of opportunities associated with the horse population would increase, although the condition of the horses could decline over time, rendering them less desirable for viewing. The quality of recreational opportunities associated with the quality of the habitat, such as viewing or hunting wildlife, would probably decline as the wild horse population increased beyond the carrying capacity of the habitat.

Some opportunities associated with the presence of wild horses might increase in the short term, but they would probably decline in the long term due to the increasing occurrence of obviously malnourished horses. Recreationists would likely encounter carcasses and their scavengers more frequently when the population of horses is in decline due to insufficient feed and/or water. Thus, although the increased population of wild horses might make them easier to find, the experience might not be as desirable due to the poor condition of the horses.

Other recreation opportunities would also be detrimentally affected in the long run due to the habitat degradation caused by wild horse overpopulation. Game species might be pressured out of the area in search of essential resources. Viewers might not need to go to the HMA to view wild herds because the wild horses would be forced to expand their territories outside the current HMA boundaries in order to find the feed and water they need to survive. Once they establish themselves beyond the HMA boundaries, they would upset the balance among other species in the new habitat as they used resources required for the other species. Opportunities for viewing and hunting other wildlife could be severely reduced in the long run, both within the HMA and beyond it.

3.6 Wilderness and Wilderness Study Areas

Affected Environment

Adobe Town Wilderness Study Area (WSA) lies within the ATSW Complex area and encompasses 85,710 acres. Until it is designated wilderness or released from further consideration by Congress, it is managed under the Interim Management Policy (IMP) for lands under wilderness review. Wild horses are considered an important attribute of the Adobe Town WSA. Under the IMP, WSAs are managed to preserve their wilderness character (naturalness, solitude, and opportunities for primitive recreation) and suitability for designation as wilderness.

Fundamental to this preservation is prohibition of new surface disturbance or permanent structures so that the WSA retains the character of an area untrammelled by man. If designated wilderness, the WSA would be managed in accordance with the Wilderness Act of 1964.

Environmental Consequences

Impacts of Alternative A The suitability of the WSA for wilderness designation would be unimpaired (not affected).

Impacts of Alternative B The suitability of the WSA for wilderness designation would be unimpaired (not affected).

Impacts of Alternative C Impacts of an increased wild horse herd size may decrease the naturalness of the WSA due to vegetation and soils degradation, and therefore may impair its suitability for designation

as wilderness. Impacts on the naturalness of the WSA could come in many forms, primarily in the form of excessive erosion due to increased horse traffic and reduced soil stabilizing vegetative cover, and a change in the number of members of other species displaced by the increased competition for resources. If no gathers occurred, the horses might well expand their territories far beyond the Complex's boundaries to obtain the resources they need, proportionately reducing their impacts on the WSA, but the herd would likely continue to occupy traditional territories until absolutely necessary, thus having a detrimental effect on the WSA in the short term as well as long term.

3.7 Livestock Grazing

Affected Environment

Domestic livestock are authorized to use the public lands under the authority of the Taylor Grazing Act, as amended. Livestock belonging to specific livestock operators are authorized to use specific areas of rangeland (grazing allotments) for specified periods of time in specified numbers. Thirteen of the 588 grazing allotments in the RFO jurisdiction occur within the Adobe Town HMA. Between 2002 and 2005 Actual Use averaged 14% livestock utilization in the Adobe Town HMA overall. All nonuse was voluntarily made by permittees due to both drought conditions and high horse numbers. Between 2005 and 2009, actual livestock use averaged 26% in the Adobe Town HMA. Livestock operations with greater flexibility have made little to no use in this area over the last eight years, while those with limited flexibility to go elsewhere have reduced their livestock numbers but still make up the majority of actual use being made. Appendix V provides the Livestock Grazing Status within the ATSW Complex and specific range monitoring data are available at the respective field offices for each HMA.

Eleven of the 80 grazing allotments in the RSFO jurisdiction occur within the Salt Wells Creek HMA. The current status of livestock grazing in the ATSW Complex is depicted in Appendix V. In all cases, the grazing allotment and the authorization of livestock use (Taylor Grazing Act of 1942) pre-date passage of the Wild, Free-Roaming Horse and Burro Act. Between 2005 and 2009, actual livestock use averaged 39% in the Salt Wells Creek HMA overall.

The rangelands in the HMAs provide seasonal grazing for livestock (cattle and sheep). Wherever domestic livestock are authorized to use the public lands, range improvements (e.g., stock ponds, well water, fences, etc.) have been authorized. Most of these range improvements are operated and maintained by the livestock operators. Fencing is primarily used to keep livestock in specific allotments during specified seasons of use thereby improving range management. Livestock water is provided by springs, wells, intermittent and ephemeral streams, pipelines, and reservoirs. Many of these range improvements are water sources for wild horses. Sheep use snow in the winter as a water source. Sheep grazing occurs mostly within the winter period while cattle grazing occurs throughout the year. The overall decline in the sheep industry has resulted in a low and variable rate of actual use by sheep operators. Some sheep operators have expressed interest in converting their sheep grazing use into cattle grazing.

Environmental Consequences

Impacts of Alternative A The proposed gather would not directly impact livestock operations within the allotments within the gather area. Operations involved in removing wild horses and burros may temporarily cause some disturbance to livestock present during the removal process. Livestock owners within the gather area would be notified prior to the gather, enabling them to take precautions and avoid conflict with gather operations.

An expected improvement in the quality and quantity of forage availability is expected where excess or strayed wild horses are removed. This would provide greater opportunity for improved range conditions within the related areas. With less grazing pressure, growing conditions can be expected to be improved, and livestock distribution would improve. A complete analysis of livestock grazing and grazing impacts

in this area is found in the Divide Grazing EIS (1983, p. 59-71). Grazing in this area is also addressed in the Record of Decision and Approved Rawlins Resource Management Plan (2008, p. 27-33), the Upper Colorado River Standards and Guidelines Assessment (2001), and the Green River RMP (1997, p. 321-322).

Impacts of Alternative B Under Alternative B, the impacts associated with capture and removal operations are expected to be similar to the proposed action.

Impacts of Alternative C Under Alternative C, wild horse population control methods would not be implemented. This alternative would allow wild horse populations to increase within the project area and nearby non-HMA areas. Livestock operations with greater flexibility would likely apply for voluntary nonuse and immediately reduce or eliminate livestock grazing within their allotments. However, operators with no other grazing options would reduce their grazing use as forage conditions deteriorated. Winter sheep operations would likely be the least impacted, but as wild horse diets become more dominated by shrubs and grass availability is low, the use by sheep would also be displaced by wild horses as demand for space, forage, and water increased. Displacement would be slow and indirect. Fence maintenance would increase due to increased numbers of wild horses and their potential damage to existing fencing. Operation and maintenance of existing water sources (including truck hauling of water to tanks) by livestock operators may not occur if there is no livestock use. Range conditions throughout the area would deteriorate, and even if wild horses are rounded up in the future or a population crash occurs during a bad winter, long-term vegetation recovery may require continued nonuse by livestock operations. These impacts would be cumulative over time.

3.8 Heritage Resources

Affected Environment

Prehistoric sites known to exist within the HMAs include open camps and lithic scatters. Historic sites known to exist include trash dumps, trails, roads, and structures associated with early settlement and commerce, or with the local ranching industry. Cultural Resource program support for the wild horse capture would consist of file search (Class I) and/or intensive field (Class III) inventories, and, if necessary, mitigation of impacts at the locations of the temporary horse holding sites. Support includes consultation with the Wyoming State Historic Preservation Office according to the Wyoming State Protocol agreement of the BLM National Cultural Resources Programmatic Agreement, which states inventory may not be required for “Animal traps and corrals in use for three days or less.” (Appendix B21).

Environmental Impacts

Impacts of Alternatives A and B Direct or indirect impacts to cultural resources are not anticipated to occur from implementation of Alternative A or B. Surface disturbing activities at the trap locations would be minimal and no historic properties would be adversely affected. The RFO and RSFO archeologists would review all proposed temporary holding facility locations to determine if these have had a Class III cultural resources inventory, and/or if a new inventory is required. If cultural resources are encountered at proposed gather sites or temporary holding facilities, those locations would not be utilized unless they could be modified to avoid or mitigate adverse impacts to significant cultural resource site(s).

Within the HMA, impacts to historic properties are limited to trampling. Naturally, fewer horses would result in lesser potential impacts to historic properties. Any increased trampling during gather operations would be minimal.

Impacts of Alternative C At the present time, a determination of no action would not adversely affect historic properties. However, a substantial increase in the number of horses over time may adversely affect historic properties by trampling.

3.9 Cumulative Impacts

The National Environmental Policy Act (NEPA) regulations define cumulative impacts as impacts on the environment that result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Past, Present, and Reasonably Foreseeable Actions

The Past, Present, and Reasonably Foreseeable Future Actions applicable to the assessment area are identified in Table 3. Assessment areas are determined by what is practical and reasonable for each resource.

Table 3. Past, Present, and Reasonably Foreseeable Future Actions

Project -- Name or Description	Status (x)		
	Past	Present	Future
Livestock grazing	x	x	x
Wild horse gathers	x	x	x
Mineral exploration/Oil and gas exploration/Abandoned mine land reclamation	x	x	x
Recreation	x	x	x
Water and spring development (wells, development of springs, & fencing water sources)	x	x	x
Invasive weed inventory/treatments	x	x	x
Wildlife/Big game studies		x	x
Wild horse issues, AML adjustments and planning	x	x	x
Wind energy exploration and development		x	x

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

Effect of Past, Present, and Reasonably Foreseeable Future Actions

All resource values described for the Affected Environment have been evaluated for cumulative impacts. If there are no direct or indirect impacts to said resources, there are likewise no expected cumulative impacts. The resources evaluated in this section for cumulative effects include: Wildlife, Vegetation, Soils, Watershed, Recreation, Wild Horses, Wilderness, Livestock Grazing, and Heritage Resources.

Wild Horses

Numerous gathers of wild horses have occurred throughout the ATSW Complex in the past. The most recent gather of wild horses was in January and August of 2007; these gathers were necessary to bring the existing wild horse population in line with population goals. Fertility control has been implemented in the past. Genetics testing has been completed in the Complex and the results indicate that the existing wild horse population has high genetic variability with few risks of inbreeding.

Past activities which may have affected wild horses within the ATSW Complex include recreational uses, livestock grazing, and energy development. These activities can impact wild horses by reducing the quantity and quality of vegetation resources, as well as water quality and quantity. Past repeated gathers in the same areas or conducted too close together can affect horse behavior making them harder to capture. Past and current mineral, oil and gas activities and other similar projects could have impacts to wild horses. There are proposals for wind monitoring and development in the project area. Impacts to wild horses from wind development projects would be similar to those associated with mineral development.

All other foreseeable activities such as invasive weed treatment, vegetation harvesting etc., would likely result in negligible impacts to wild horses in the long term; this is because the areas of disturbance would be small compared to the overall size of the ATSW Complex. An overall lower population and density of wild horses across the landscape would allow for more rapid recovery of native vegetation that is currently degraded; it would also reduce or eliminate the potential for further degradation. Moreover, by managing wild horse populations within the AML range, the expected improvement in rangeland health would be expected to lead to improved body condition, healthier foals, and ensure herd sustainability through drought years.

Implementation of Alternatives A and B would benefit wild horses in the long term because there would be improved quality and quantity of resources (forage, water, cover, and space). Future offspring would also benefit from these improved resources; they would be expected to be larger, healthier, and better able to achieve their genetic potential. The application of fertility control, sex ratio adjustment favoring stallions 60:40 and removals to the lower limit of the AML in the Proposed Action would slow population growth over the next 2-3 year period thereby further reducing the impact to the vegetation over a longer period of time. Under Alternative B, the ATSW Complex would be gathered to the lower limit of the AML and the population would be allowed to grow at normal rates thus the vegetation recovery would be expected to be slower than that of the Proposed Action because grazing pressure would increase at a faster rate following the removal of excess horses.

Under Alternatives A and B, continued monitoring and data collection would be needed to assess whether healthy and self-sustaining wild horse herds are being maintained on the Complex over the long term. Monitoring of the project area will continue for wild horses as well as vegetation and water resources. Further evaluation is needed to determine if the ATSW Complex is meeting the standards for rangeland health.

Under the No Action Alternative, there would be no long-term cumulative benefits to any rangeland user. Future generations of wild horses would experience continued range deterioration and loss of water sources and riparian habitat. At the current rate of annual population growth, the projected wild horse population would exceed 4,500 animals within 4 years. Left unchecked, irreparable damage to the habitat could result in the need to permanently remove all wild horses from the ATSW Complex.

Wildlife, Threatened and Endangered Species, Special Status Species, and Migratory Birds

Historic use by livestock, wild horse grazing, recreation, mineral exploration, mining and vegetation harvesting have likely impacted wildlife, special status species, and migratory bird habitat within the ATSW Complex, especially near water locations. These activities result in loss of habitat and disruption of movement patterns. The current overpopulation of wild horses is also impacting wildlife habitat by increasing the competition for available forage and water and thermal protection. Alternatives A and B would not contribute to cumulative impacts associated with impediments to wildlife movement. Cumulative impacts associated with range management, such as construction of other water projects and invasive weed treatments, are beneficial for wildlife and wildlife habitat. These projects/activities are implemented to enhance rangeland condition which benefit wildlife species and associated habitat.

The cumulative impacts associated with implementation of Alternatives A and B would lead to overall improvement of rangeland resources and wildlife habitat. Under Alternatives A and B, wild horse populations would be managed within the AML range over the next 3-4 year period. As a result, fewer wild horses would be present and the quality and quantity of these resources would be expected to improve. When combined with past, present, and reasonably foreseeable future actions, and the identified mitigation measures, the potential for significant adverse cumulative impacts to wildlife habitat from implementation of Alternatives A and B would be negligible.

No long-term cumulative benefits to any rangeland user would be expected with implementation of the No Action Alternative. The No Action Alternative would be expected to result in continued range deterioration, and lead to long-term adverse impacts to range and riparian health. Once long-term range and riparian health is impacted, any reasonably foreseeable projects or other management actions are unlikely to improve habitat for wildlife, sensitive species, or other values.

Livestock Grazing, Vegetation, and Soils

The vegetation within the ATSW Complex has been utilized by wild horses since the project area was first settled. Domestic livestock has grazed all portions of the Complex in the past and is expected to continue in the future. Some of the range has a history of over-utilization. Water has always been the limiting resource for wild horses within the ATSW Complex. As a result, vegetation and soils located near streams and springs tends to be disproportionately utilized and trampled. Lack of adequate water in portions of the project area has prevented widespread utilization by wild horses.

Implementation of Alternatives A and B would contribute to isolated areas of vegetation disturbance through the gather activities. In the long term, however, the achievement of AML in conjunction with proper grazing management and other foreseeable actions such as recreation, mineral exploration and reclamation, vegetation harvesting and invasive weed treatment, would contribute to improved vegetative resources.

Implementation of Alternatives A and B would be expected to promote improvements to ecological condition. Excessive use by wild horses would not occur at riparian areas or outside the ATSW Complex once AML is achieved and maintained. Key forage and browse species would improve in health, abundance and robustness, and would be more likely to set seed and reproduce, which in turn would contribute to improvements in rangeland health. The proposed population control and other foreseeable actions would begin to offset past negative trends in habitat modification by allowing for attainment of rangeland health standards and site-specific management objectives.

Implementation of the No Action Alternative would result in continued degradation of vegetation by wild horses. In the long term, this would cause native vegetation to be replaced by less palatable native plants or invasive species such as cheatgrass or noxious weeds. Past impacts would not be offset and downward trends would continue to occur. When combined with past, present, and reasonably foreseeable future actions the potential for significant cumulative impacts to livestock grazing, vegetation, and soils is expected to be higher than Alternatives A or B due to increase horse populations.

Recreation

Recreational uses have occurred throughout ATSW Complex since the surrounding areas were first settled. Recreational uses are increasing and expanding throughout the area. As a result, the need for recreation planning has increased. Recreation planning allows land management agencies to work to balance the resource needs with the demand for a variety of recreation uses which the public can enjoy within the ATSW Complex.

Implementation of Alternatives A and B would allow for continued viewing of wild horses. The aesthetic values provided in association with a variety of recreational opportunities would also be enhanced as the quantity and quality of vegetation within the area improves.

Implementation of the No Action Alternative would allow for recreational opportunities as they currently exist. Viewing opportunities of wild horses would be greater under this alternative; however, heavy utilization of vegetation would continue to occur, impacting the aesthetic values associated with various recreational opportunities. As animal health declines or animals leave the HMAs in search of food and water, some recreational opportunities would be less enjoyable. When combined with past, present, and reasonably foreseeable future actions the potential for significant cumulative impacts to recreation is expected to be higher than Alternatives A or B due to less aesthetic values.

Wilderness and Wilderness Study Areas

FLPMA requires the BLM to manage WSAs in a manner so as not to impair the suitability of such areas for preservation as wilderness. This is referred to as the non-impairment mandate. Under the IMP, wild horse populations must be managed at appropriate management levels to ensure a thriving natural ecological balance.

Alternative A and B would allow for WSAs to be managed as mandated and required. No cumulative impacts to WSAs are expected.

The No Action Alternative could lead to wild horses moving into areas of the wilderness or WSAs looking for food, water, space and cover as traditional use area and home ranges are becoming crowded. This alternative would potentially lead to management techniques that degrade the wilderness characteristics, and populations that are not within appropriate management levels and not ensuring that thriving natural ecological balances are being achieved.

Heritage Resources

No cumulative impacts are anticipated for heritage resources.

Mitigation Measures and Suggested Monitoring

The ATSW Complex would continue to be monitored post-gather. Data would be collected which would assist the BLM in determining whether existing AMLs are appropriate or need future adjustment (either up or down). Data collected would include observations of animal health and condition, climate (precipitation), grazing utilization and animal distribution, population census, range condition and trend, among other items.

Proven mitigation and monitoring are incorporated into the proposed action through standard operating procedures, which have been developed over time. These SOPs (Appendices II and III) represent the "best methods" for reducing impacts associated with gathering, handling, transporting, collecting herd data and applying fertility control.

Based on the analysis of impacts above and consideration of all design features, wild horse gather best management practices, standard operating procedures presented as part of the proposed action and alternatives, no additional mitigation measures are proposed or required.

Residual Impacts

Since no additional mitigation measures are proposed or required, no residual impacts result other than the impacts described above.

4.0 Tribes, Individuals, Organizations, or Agencies Consulted

Tribes, individuals, organizations, and agencies were included in the scoping process. The letter soliciting scoping comments for the proposed gather in Adobe Town and Salt Wells Creek HMA Complex was mailed February 19, 2010.

Tribes

Eastern Shoshone Business Council
Eastern Shoshone Tribe
Northern Arapaho Business Council
Northern Arapaho Tribal Historic Preservation
Shoshone-Bannock Cultural Resources
Shoshone-Bannock Tribal Council
Ute Tribal Council
Ute Tribe Cultural Resources

Agencies

Bureau of Indian Affairs
Bureau of Land Management
Carbon County Commissioners
Fremont County Commissioners
Mayor of Baggs
Mayor of Wamsutter
Mayor of Superior
NRCS
Office of the Governor of Wyoming
Popo Agie Conservation District
State of Wyoming agencies
State Representatives
State Senators
Sublette County Commissioners
Sweetwater County Commissioners
Sweetwater County Conservation District
Sweetwater County Planning Dept.
U.S. Fish and Wildlife Service
U.S. Representative Cynthia Lummis
U.S. Senator John Barrasso
U.S. Senator Michael B. Enzi
Wyoming Game and Fish Department

Organizations

Agri Kids USA
American Horse Protection Association
American Mustang Association
Dream Catcher Wild Horse & Burro Sanctuary
Friends of Animals

Hooved Animal Humane Society
National Mustang Association
National Wild Horse Association
North American Mustang Assoc. & Registry
Pryor Mountain Wild Mustang Center
The Cloud Foundation
University of Wyoming
Western Watersheds Project
Western Wyoming Mule Deer Foundation
Whole Horse Institute
Wild Horse Organized Assistance
Wild Horse Spirit
Wind River Backcountry Horsemen's Assoc.
Wyoming Advocates for Animals
Wyoming Business Council
Wyoming Chapter of the Sierra Club
Wyoming Livestock Board
Wyoming Wilderness Association
Wyoming Wildlife Federation
Wyoming State Grazing Board

Operators, Media, Libraries

4-Mile Sheep
AL Land & Cattle Company
Alkali Creek Grazing Association LLC
Anadarko Petroleum Corporation
Arapaho Grazing Association LLC
Bar X Sheep Company
Battle Mountain Co.
Big Sandy & Green River Livestock Co.
Blake Sheep Company & F.B. Espy
Bonomo, Jensen, Kourbelas
Carricaburu-Jauregui
CE Brooks & Associates PC
Central Bank & Trust
Conservancy of the Phoenix
Desert Cattle Co.
Dr. Jason Howard PC
Estate of Curtis Rochelle
Evans Wells & Livestock

Fill-More Beef LLC/P.H. Livestock
First Interstate Bank
G Bar B Veterinary Service
Hill Land and Livestock
Hog-Eye Ranch LLC
ISPM & B
Janet's Inc.
John S. Walters
KBR
Mad Dog & the Pilgrim Booksellers
Maneotis Sheep Company
Marty and Ragsdale
Midland-Dunton Sheep Co.
Mud Springs Livestock Company
Olson Sisters Corporation
Philp Sheep Company
Pinedale Roundup
Poor Farm LLC
Quarter Circle Block LLC
Quealy Properties, LLC
Raftopoulos Brothers Livestock
Rock Springs Grazing Association
Rock Springs Library

Rocket Miner
Salisbury Livestock Co.
Salisbury Livestock Co./Banjo Sheep Co.
Slagoski & Asay
Smith Rancho Inc.
Split Rock Holdings
Stewart Creek LLC
Stratton Sheep Co.
Sublette Examiner
Sue Pepe Young
Sun Land and Cattle Co.
Tall Grass, LLC
Taurus Productions, Inc.
Three Mill-Iron Ranch
Triple A Cattle Company
Tripp Family Trust
Vermillion Ranch Limited Partnership
W & M Thoman Ranches LLC
Weber Ranch Inc.
Western Wyoming Community College
Wyoming Livestock Roundup
Wyoming Outdoor Council
Wyoming State Library

5.0 List of Preparers

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Appendix I

Summary of Scoping Comments

Over 7,000 comment letters or emails were received from individuals, organizations, and agencies following the issuance of the Adobe Town and Salt Wells Creek HMAs Wild Horse Gather Plan Scoping Letter. The majority of these approximately 7,000 letters or emails were one of two form letters. All comment letters were reviewed and considered and resulted in approximately 5 unique substantive comments (see Table A-1). Substantive comments were incorporated in the EA as appropriate. The BLM responses to the substantive comments are identified below. Comments that were not substantive are on file and can be reviewed at the Rock Springs or Rawlins Field Offices.

Table A-1			
No.	Commenter	Comment	BLM Response
1	Individuals	Utilize BLM's discretion under 43 CFR 4710.5(a) to close or limit livestock grazing in the HMAs, and/or designate this area to be managed principally for wild horse herds under 43 C.F.R. 4710. 3-2.	The issue of authorized livestock grazing use was previously decided in the Divide Grazing EIS, the Rawlins RMP, the Upper Colorado River Standards and Guidelines Assessment, and the Green River RMP. See 3.7 Livestock Grazing.
2	Individuals	Re-evaluate and increase the AML for wild horses for this 1.7 million-acre area.	The AMLs were established through prior separate decision-making processes. Increasing the AML would not eliminate the need to hold gathers and manage wild horse numbers. The BLM manages resources for multiple use; increasing the AML to manage the HMAs for only a single public land use is outside the scope of this EA. See 3.2 Wild Horses.
3	Individuals	Offer any ranchers grazing livestock in the HMAs the option to retire cattle grazing allotments to promote ecotourism activities.	This is outside the scope of this analysis. The BLM has a multiple-use mandate to manage for all uses of the public land. Achieving and maintaining wild horse populations within established AMLs and controlling their population growth rates will enhance the public lands for the benefit of all users and resources. This in turn will increase the recreational experience in the area.
4	Individuals	Implement and expand the current proposal of fertility control treatments to allow more horses to remain on the range.	Fertility control has been incorporated into Alternative A.

Table A-1			
No.	Commenter	Comment	BLM Response
5	Individuals	Implement range improvements and water enhancements that will benefit all animals, including wildlife and horses, living in the HMAs.	Water range improvement projects do enhance and benefit all wildlife and wild horses. Some water wells and pipelines are shut down to manage livestock rotation or for winter maintenance.

Over 3,000 comment letters were received from individuals, organizations, and agencies following the issuance of the Adobe Town and Salt Wells Creek HMAs Wild Horse Gather Plan EA and draft Finding of No Significant Impact (FONSI) and Decision Record. All comment letters were reviewed and considered (Table A-2). Substantive comments were incorporated in the EA as appropriate. The BLM responses to the substantive comments are identified below. Comments that were not substantive are on file and can be reviewed at the Rock Springs Field Office.

Table A-2		
Number	Comment Summary	Response
AWHPC1	The BLM failed to provide adequate scientific justification or rationale for the Proposed Action.	The Proposed Action was crafted by BLM specialists using all available information, including modeling data and previous monitoring. This EA is intended to analyze the impacts from implementation of the Proposed Action or alternatives. Section 1.2 addresses the Purpose and Need for the action.
AWHPC2	The management approach detailed in the EA as the proposed alternative continues the unsustainable cycle of roundups, removals, and stockpiling of horses in long-term holding facilities. ...this failed strategy is the inequitable distribution of resources within these HMAs. ...no threat to the 'thriving natural balance' is greater than the extensive livestock grazing.	The BLM has a multiple-use management mandate for meeting its mission of sustaining the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. Current management actions for the wild horses include maintaining appropriate herd management levels for an ecological balance among wild horses and land and resource uses.
AWHPC3	The Proposed Action will have significant and negative impacts on the affected region. These impacts have not been adequately addressed in the EA.	Impacts from the Proposed Action and alternatives for the resource areas are adequately addressed in Section 3 of the EA.
AWHPC4	EA omits discussion of Adaptive Management Strategy	Both the Green River Resource Management Plan (RMP) and the Rawlins RMP identify management

Table A-2		
Number	Comment Summary	Response
		actions for wild horses. The Proposed Action and alternatives are in conformance to the RMPs. Additionally, the Proposed Action and Alt B are in compliance with the 2003 Consent Decree (03 CV 169D) and Court Order C79-275K. See Section 1.3 of the EA for more details about conformance with applicable regulations, which has been updated to provide more detail.
AWHPC5	EA fails to consider the legal and social factors that affect land use decisions.	Land-use decisions are identified and evaluated through the resource management plan development process and are outside the scope of this proposed action/alternatives analysis. The proposed action and alternatives are in conformance with both the 1997 Green River RMP (GRRMP) and the 2008 Rawlins RMP (RRMP) and the 2003 Consent Decree (03 CV 169D) and Court Order C79-275K.
AWHPC6	No evidence to support contention of wild horse 'overpopulation' presented; regular annual monitoring data-essential for validation of AML-is not provided	The population estimates for the ATSW Complex were determined through direct count. Although these counts were conducted in 2009, the methods were in compliance with the new BLM IM 2010-057 Wild Horse & Burro Population Inventory and Estimation.
AWHPC7	Environmental impacts of Proposed Action not adequately analyzed: sage grouse and other wildlife disturbance; sensitive species, WSAs	The impacts to wildlife, T&E species, special status species and migratory birds are adequately addressed in Section 3.3 and WSA impacts are adequately addressed in Section 3.6. Additionally, trap sites will be constructed and operated under the recommendations of a wildlife biologist to avoid impacts to wildlife during the gather.
AWHPC8	Alternatives consideration deficient: 1. Alternative to helicopter stampedes, 2. Reduction in livestock grazing, 3. Increasing AML based on current data, 4.	1. Discussion of suggested alternatives to the helicopter capture method has been added to Section 2.4 in an effort to clarify feasible

Table A-2		
Number	Comment Summary	Response
	Other on-the-range management strategies such as additional fertility control.	<p>alternatives.</p> <p>2. Livestock grazing allocation decisions are land-use management decisions that are evaluated in the RMP development process and are outside the scope of this Proposed Action/alternatives analysis.</p> <p>3. The establishment of the AMLs is a land-use management decision that is evaluated as part of the RMP development process and is outside the scope of this Proposed Action/alternatives analysis.</p> <p>4. BLM specialists determined that the adjustment of the sex ratios (favoring stallions 60:40) was optimal for maintaining the herd.</p>
AWHPC9	EA fails to adequately assess the impacts of short- and long-term holding on any horses	Impacts to wild horses are presented in detail in Section 3.2. Some of the impact information concerning gathers/holding was previously discussed in Appendix 2 “Standard Operating Procedures”, but has been moved to the body of the EA for better clarification. Additionally, the wild horse impacts discussion (previously Section 3.5) was moved to the beginning of Section 3 (3.2) in response to public comments and concerns about the impacts to wild horses.
AWHPC10	EA fails to consider the impacts of the abrupt mass removal of nearly 2000 wild horses from the populations living in these two HMAs.	The management of social structures of wild horse herds within the HMAs is not a management strategy identified in either the GRRMP or the RRMP and is outside the scope of this Proposed Action/Alternatives analysis. Impacts to wild horses are adequately addressed in Section 3.2.
AWHPC11	EA fails to consider the impacts on individual horses of the BLM’s plan to skew sex ratios in horses released to the range.	BLM specialists determined that the adjustment of the sex ratios (favoring stallions 60:40) was optimal for maintaining the herd, and therefore included the sex ratio adjustment as part of the Proposed Action. Impacts

Table A-2		
Number	Comment Summary	Response
		from the Proposed Action on wild horses are discussed in Section 3.2.
AWHPC12	Proposed Action does not adhere to the 1971 WFRHBA, Section 1333 (a) ‘All management activities shall be at the minimal feasible level...’	Management actions for maintaining the AML of the wild horse herds are in compliance with Section 1333 of the WFRHBA. Additionally, the Proposed Action and Alt B are in compliance with the 2003 Consent Decree (03 CV 169D) and Court Order C79-275K. See Section 1.3 of the EA for more details about conformance with applicable regulations.
AWHPC13	EA failed to establish that: 1. An overpopulation of wild horses exist. 2. The low AMLs are appropriate for this land area 3. Alleged range damage is caused by wild horses rather than livestock grazing 4. There is an appropriate and fair distribution of resources between livestock, wild horses and other species in the HMA 5. The removal of horses is necessary and goals cannot be accomplished through alternatives for on-the-range management.	1. Current population exceeds the AMLs and is therefore in ‘excess’ 2. The establishment of the AMLs is a land-use planning decision that is evaluated as part of the RMP development process and is outside the scope of this Proposed Action/alternatives analysis. 3. The affected environment for Livestock Grazing is adequately addressed in Section 3.7. 4. Land-use allocations are evaluated through the RMP development process and are outside the scope of this Proposed Action/alternatives analysis. 5. The Proposed Action/alternatives are in conformance to the RMPs management strategies of maintaining the AMLs. Additionally, the Proposed Action and Alt B are in compliance with the 2003 Consent Decree (03 CV 169D) and Court Order C79-275K.
IDA1	The EA and the 2003 Consent Decree completely fail to determine one single wild horse or burro as ‘excess’, directly violating the WHFRBA.	The Proposed Action and Alt B are in compliance with the 2003 Consent Decree (03 CV 169D) and Court Order C79-275K. Current population exceeds the AMLs and is therefore in ‘excess’.
IDA2	BLM failed to take the NEPA required ‘hard look’ at various alternatives to the	1. See comment response to AWHPC4.

Table A-2		
Number	Comment Summary	Response
	roundup including: 1. Adaptive management 2. Reduction in livestock through regulation 3. Changing the AML 4. Swapping livestock AUMs for Horse AUMs	2. See comment response #2 to AWHPC8. 3. See comment response #3 to AWHPC8. 4. See comment response #4 to AWHPC13.
IDA3	EA violates the statutory mandated ‘tiered approach’ to roundups	The Proposed Action/alternatives are in compliance with the 1971 WFRHBA.
IDA4	EA violates congressionally mandated on-the-range management for identifying horse body conditions, ages, and adoptability	The Proposed Action/alternatives are in compliance with all applicable regulations and is in conformance to the RMPs (See Section 1.3).
IDA5	EA fails to adequately address the direct and indirect effects on horses in short-term and long-term holding facilities, including referencing BLM guidance such as the ‘Strategic Research Plan Wild Horse and Burro Management’ of 2005 and internal memorandum.	See comment response to AWHPC9.
IDA6	There is a need for more public transparency by the BLM for the roundups and the short- and long-term holding facilities.	Comment noted.
IDA7	The EA should be immediately rescinded for the fundamental flaws and violations of laws (WFRHBA, NEPA).	The Proposed Action/alternatives are in compliance with all applicable regulations (See Section 1.3). The EA has been prepared in compliance with the federal NEPA requirements.
IDA8	A complete overhaul of the dysfunctional, unsustainable Wild Horse and Burro Program needs to take place.	Comment noted.
AWI1	The BLM has failed to satisfy the requirements of the federal Data Quality Act.	The information provided in the EA is in compliance with the BLM Information Quality Guidelines (2002) and the federal Data Quality Act.
AWI2	BLM violated NEPA by not allowing submission of comments by email and fax.	The public has not been denied an opportunity to participate in the NEPA process for this Proposed Action/alternatives. A public scoping period was held prior to the analysis to determine issues of concern and the EA and draft FONSI/Decision Record were made available for public

Table A-2		
Number	Comment Summary	Response
		<p>comment in an effort to ensure public concerns were adequately addressed before the decision was made final. This level of public involvement is beyond NEPA requirements for an EA.</p> <p>During the scoping period, the BLM received a net total of approximately 7000 separate individual email submissions; however, approximately 30,000 emails were received due to duplicate and triplicate submissions sent to multiple members of management and staff. Sorting through the duplicate submissions created an undue burden on the BLM staff. Additionally, only five substantive comments were received from the approximate 7000 emails due to multiple form letter campaigns.</p>
AWI3	BLM has failed to provide requested information that is referenced in the EA.	All information referenced in the EA is available either online (www.blm.gov) or at the respective BLM Field Offices.
AWI4	The outcome of this decision-making process has been predetermined, as demonstrated by the BLM's release of the draft FONSI and decision record at the same time as the draft EA.	The BLM is not required to release a draft FONSI or Decision Record for all EAs. The prepared EA and recommendation for a FONSI and unsigned Decision Record were made available for public comment in an effort to ensure public concerns were adequately addressed before the decision was made final. The draft Decision Record was prepared after the EA was completed and a recommendation for a FONSI was determined.
AWI5	The BLM failed to comply with NEPA requirements and its own policies when incorporating information by reference in the EA.	Any information that is incorporated by reference has been updated with appropriate citations.
AWI6	The BLM's reliance on previous agreements inappropriately restricts wild horse management options and	The BLM will continue to conduct actions in compliance with all legal agreements and regulations. See

Table A-2		
Number	Comment Summary	Response
	undermines the broad intent of NEPA.	Section 1.3 of the EA for conformance information about the Proposed Action/alternatives.
AWI7	The BLM has failed to substantiate the need for the proposed action.	Section 1.2 adequately addresses the Purpose and Need for the Proposed Action.
AWI8	The BLM has failed to consider a reasonable range of alternatives in violation of NEPA regulations.	All reasonable alternatives have been considered. Section 2.4 has been updated to include additional alternatives in an effort to clarify what is feasible.
AWI9	Suggested alternative: immune-contraception/fertility control only	A discussion of this alternative has been added to Section 2.4.
AWI10	Suggested alternative: incremental approach for removals over time	A discussion of this alternative has been added to Section 2.4.
AWI11	Suggested alternative: remove horses from Salt Wells Creek only	A discussion of this alternative has been added to Section 2.4.
AWI12	Suggested alternative: close HAs or HMAs to domestic livestock use	See comment response #2 to AWHPC8.
AWI13	Suggested alternative: Capture and translocate wild horses to suitable native habitat in or outside of Wyoming	This suggested alternative would require additional land-use allocation decisions that are outside the scope of these Proposed Action/alternatives.
AWI14	Suggested alternative: change established AMLs	See comment response #3 to AWHPC8.
AWI15	The BLM failed to adequately disclose all relevant information regarding wildlife, T&E species, special status species, and migratory birds; including population sizes, trends, habitat characteristics, threats, proportion of habitat within the project area, frequency of occurrence, and season of use.	The affected environment and environmental consequences for wildlife, T&E species, special status species, and migratory birds are adequately addressed in Section 3.3.
AWI16	The BLM failed to adequately disclose all relevant information regarding vegetation, soils, and watersheds; including the productivity, abundance, composition, or distribution of any of the plant species known to exist or favored by wild horses.	The affected environment and environmental consequences for vegetation, soils, and watersheds are adequately addressed in Section 3.4.
AWI17	Despite the lack of information disclosed, the EA claims that all alternatives will have a significant impact on vegetation and soils in the project area.	Incorrect. The EA does not state that impacts to vegetation and soils will be significant. See Section 3.3 for more information.
AWI18	The BLM failed to adequately disclose all relevant information regarding recreation;	The affected environment and environmental consequences for

Table A-2		
Number	Comment Summary	Response
	including seasonal uses, popularity, and extent of ORV uses.	recreation are adequately addressed in Section 3.5.
AWI19	The BLM must consider recreational impacts for those members of the public that share its views on roundups, and also on the person who may intentionally or unintentionally observe a roundup or even those who merely contemplate the impact of the roundup on wild horses.	The BLM is not required to analyze impacts to persons who observe roundups or who merely contemplate the impacts of roundups on wild horses. Impacts to wild horses are discussed in Section 3.2 and recreational impacts are discussed in Section 3.5.
AWI20	The BLM failed to adequately disclose all relevant information regarding wild horses; including additional information about the results of past gather operations conducted in the HMAs, number of horses gathered and removed, wild horse body condition scores, wild horse injury and mortality rates associated with past captures, numbers and reasons for euthanasia, disease concerns, and genetic allelic diversity information.	Past gather success or failure is not relevant to the resource impact analysis for the current Proposed Action/alternatives. The affected environment and environmental consequences for wild horses are discussed in Section 3.2.
AWI21	The BLM failed to provide information regarding the current condition of the WSA, whether it persists in a natural condition, and/or what uses are presently allowed that may degrade the naturalness of the area.	The affected environment and environmental consequences for Wildness Study Areas are adequately addressed in Section 3.6.
AWI22	The EA does not provide similar statistics about livestock use for the Salt Wells Creek allotments as described for the Adobe Town allotments.	This oversight was corrected and Section 3.7 has been updated with livestock use information for the Salt Wells Creek allotment.
AWI23	The BLM failed to adequately disclose all relevant information regarding range condition, vegetation, and forage. Nor did the BLM provide information about how its management of livestock may change if the proposed action is selected (ex. allow permittees to increase use to permitted levels).	The affected environment and environmental consequences for livestock grazing are adequately addressed in Section 3.7. The BLM is currently not restricting permitted livestock use for the allotments within the HMAs. Some permittees have voluntarily opted for nonuse due to drought conditions and high horse numbers; however, the BLM did not request nonuse in these allotments.
AWI24	The BLM has failed to adequately	Cumulative effects are adequately

Table A-2		
Number	Comment Summary	Response
	consider the cumulative impacts of the proposed action and alternatives; including those that were not included in the direct/indirect impacts analysis: 1. Impacts to wildlife from additional mineral exploration, vegetation harvesting, and recreation, 2. Impacts of recreational users on wild horses, 3. How wind projects will impact wild horses.	addressed for all impacted resources from the Proposed Action/alternatives in Section 3.9.
AWI25	Comments on Standard Operating Procedures (SOPs) Appendix	The SOPs are a separate document from the EA and are not open to revision as part of this Proposed Action/alternatives analysis. Relevant information from the SOPs has been added to Section 3.2 to clarify impacts for wild horses from the Proposed Action/alternatives. (See comment response for AWHPC9.)
AWI26	Comments on Wild Horse Population Modeling Appendix	The population modeling is one tool used by BLM specialists to craft the proposed action and alternatives that will be analyzed in the EA. The EA is an analysis to determine the impacts from the proposed action and alternatives. This EA is not intended to determine the merits of the population model or any other tools that are used by resource specialists.
AWI27	Concerns regarding the long-term holding facilities for wild horses.	See comment response for AWHPC9.
CLG1	Supports the proposed removal of 1,951 wild horses but objects to the return of any wild horse to the ATSW complex.	Comment noted.
CLG2	DR and EA fail to adequately discuss or provide for the survey and complete removal of all wild horses outside of HMAs.	Please refer to Section 2.0 ‘Actions Common to Alternatives A and B’, which addresses wild horses outside of the HMAs.
CLG3	Proposed Action needs to ensure that concentrated year round grazing by excess wild horses in the HMAs is a gather priority.	Comment noted.
VRLP1	Incorporates by reference the Coalition of Local Governments (CLG) comments (CLG1, CLG2, and CLG3).	Comment noted.
VRLP2	Objects to the proposed return of 374	Comment noted.

Table A-2		
Number	Comment Summary	Response
	gathered horses to the ATSW Complex	
VRLP3	Urges BLM to clarify in the DR and EA that all wild horses in areas outside of the HMA's, where they've been allowed to migrate be thoroughly and accurately surveyed and removed.	See comment response for CLG2.
WDA	WDA supports Alternative A to implement a gather and fertility control program as described in the EA for the Adobe Town and Salt Wells Creek HMA.	Comment noted.
WDA2	The gathering of wild horses in this area is essential to achieving the appropriate management level, ensuring a natural ecological balance to the range, and providing protection of rangeland resources.	Comment noted.
WDA3	WDA supports the continued work of BLM. The gathering of wild horses provides for the continuation of healthy viable populations of wild horses on public lands for future generations to view and works to protect the delicate balance between rangeland resources and their multiple uses.	Comment noted.
WDA4	WDA urges BLM to continue monitoring and perform gathers on a regular basis to keep herd levels at the low end of the AML to ensure an ecological and multiple use balance.	Comment noted.
WDA5	WDA encourages BLM Staff to work closely and proactively with landowners/ permittees in the Adobe Town and Salt Wells Creek Horse Management Area Complex in preparing for the gather as well as during the gather operations.	Comment noted.
DPV	Appreciates the efforts that are made but finds it hard to believe that removing horses to bring the numbers to the maximum allowed and then not returning for years to monitor the herd is "managing".	Comment noted.
Form1	The EA fails to provide a scientific basis or rationale for the decision to remove such a large number of horses. No evidence of range damage, poor condition	See comment responses for AWHPC1 and AWHPC13.

Table A-2		
Number	Comment Summary	Response
	of horses or other data presented.	
Form2	The EA fails to adequately consider the impacts of the Proposed Action on the horses, including those who are permanently removed, those captured and released, and those left behind. The EA contains no discussion of the social disruption and destruction of family bands, or the expected deaths of horses in holding facilities due to trauma and stress.	See comment responses for AWHPC9 and AWHPC10.
Form3	The EA fails to consider any alternatives to the helicopter stampede of wild horses over rugged terrain for up to ten miles, which has been demonstrated to cause trauma, injury and death.	See comment response for AWHPC8.
Form4	The EA dismisses without foundation, alternatives to the Proposed Action which were submitted by thousands of members of the public; including increasing Appropriate Management Levels for wild horses, reducing livestock grazing, converting livestock grazing allotments to increase forage and allow greater numbers of horses, and making range improvements to better distribute horses throughout the HMA.	See comment response for AWHPC8.
Form5	The EA fails to evaluate the social, economic and legal impacts of the warehousing of the majority of captured horses in holding facilities, where they will join the 38,000 wild horses already warehoused at taxpayer expense.	Wild horse impacts from the Proposed Action/alternatives are adequately addressed in Section 3.2. Decisions regarding the BLM Wild Horse and Burro Program policies are outside the scope of this EA.
Form6	BLM's decision to prohibit email submissions on the EA is evidence that public input is irrelevant to BLM plans.	See comment response for AWI2.
Form7	BLM is proceeding with the removal of wild horses while continuing to allocate more resources to privately-owned livestock, indicating the agency manages the public lands for the benefit of commercial interests rather than the public.	Comment noted.
Form8	The BLM's professed commitment to change is not evident in the EA proposed	Comment noted.

Table A-2		
Number	Comment Summary	Response
	action or alternatives.	
CW1	Requests that an independent, direct count be immediately performed on the wild horses of both HMA's so that accurate count can be established.	Comment noted.
CW2	Opposed to the idea of skewing the sex ratio of the herds 60-40 in favor of stallions.	See comment response for AWHCP11.
CW3	Concern for the 1577 horses that will be removed. Families will be torn apart, horses will be injured in the round up, and this will mean 1577 more mouths to feed by us, the American taxpayers.	Comment noted. See also comment response for AWHPC10.
GK1	The EA fails to consider alternatives to the Proposed Action that were submitted by thousands of members of the public during scoping including: increasing the AMLs, reducing livestock grazing, converting livestock grazing allotments to increase forage, and making range improvements.	See comment response for AWHPC8.
GK2	The EA fails to adequately consider the impacts of the Proposed Action on the horses, including those who are permanently removed, those captured and released, and those left behind. The EA contains no discussion of the social disruption and destruction of family bands, or the expected deaths of horses in holding facilities due to trauma and stress.	See comment responses for AWHPC9 and AWHPC10.
GK3	It is clear that BLM does not have a handle on the numbers and before any further roundup plans move forward, an accurate, independent count must be undertaken.	See comment response for AWHPC6.
GK4	Request that the EA have a comparison of cattle and sheep use to wildlife use, including wild horses in relation to forage.	Comment noted. Livestock grazing, wildlife and wild horses are adequately discussed in Section 3 of the EA.
GK5	The EA fails to provide a scientific basis or rationale for the decision to remove such a large number of horses. No evidence of range damage, poor condition of horses or other data presented.	See comment responses for AWHPC1 and AWHPC13.
GK6	The map included with the EA is not representative of the actual area as it fails	The map adequately identifies the existing boundaries of the HMAs, as

Table A-2		
Number	Comment Summary	Response
	to show the livestock fences in the HMA and other natural and manmade obstacles in the area.	intended.
GK7	The BLM fails to acknowledge the value of wild horses to their native environment.	Comment noted.
GK8	If the BLM uses PZP in the HMA, the drug should be administered selectively only after an analysis of band structure that identifies each family group.	See comment response for AWHPC10.
GK9	Skewing the sex ratios to control the population comes with significant social disruption to the herd and would likely result in compensatory reproduction.	See comment response for AWHPC10.
GK10	Adaptive management must be utilized and the public allowed to comment and to suggest solutions on actions in a holistic manner.	See comment response for AWHPC4.
GK11	The decision by the BLM to limit public comment to only mail or hand-delivery increases paper usage and prohibits members of the public from commenting on this action.	See comment response for AWI2.
WWHC1	The Consent Decree between the State of WY and the BLM in 2003 is of questionable validity.	Please refer to Section 1.3 for compliance with applicable regulations.
WWHC1	The use of helicopters in gathering horses is inhumane.	Comment noted.
WWHC2	Concern over the small number of mares being treated with PZP (100), leaving an untold number of intact mares to reproduce and bring the population back rather quickly—leading to more gathers.	Comment noted. BLM specialists determined that the adjustment of the sex ratios (favoring stallions 60:40) was optimal for maintaining the herd.
WWHC3	Wild horses are native North American wildlife.	Comment noted.
WWHC4	The BLM should consider posting data on range condition, trend, and utilization as a tool for public education.	Comment noted. All information referenced in the EA is available either online (www.blm.gov) or at the respective BLM Field Offices.
WWHC5	The EA does not show maps of the grazing allotments within each HMA, which would have been helpful due to the potential conflicts between livestock and wild horses.	Livestock grazing is adequately addressed in Section 3.7 and Appendix V of the EA. Maps of grazing allotments are available at the BLM Field Offices.
WWHC6	It would be less traumatic to the social structure to conduct a phased approach for	See comment responses for AWHPC10 and AWI10.

Table A-2		
Number	Comment Summary	Response
	the removal of horses.	
LC1	The BLM fails to say how many cattle are on the HMA or that any range management was tried.	Appendix V shows livestock grazing status for all allotments in the HMAs. See also Section 2.4 for alternatives considered.
LC2	If the BLM cares about doing a service to the public, the BLM would give the management of the mustangs to an agency that had the welfare of the animals as a first goal. Then the American public would be able to trust its Government.	Comment noted.
LB	The census should not only apply to the horses on the rangelands, but it should also apply for all the horses that are claimed to be in the dozens of BLM holding facilities.	Comment noted.
AB1	Devote the HMA to the welfare and protection of wild horses and implement range improvements that protect and improve rangeland ecosystems for the benefit of wild horses, not exclusively to livestock or wildlife.	See comment response for AWHPC2.
AB2	Provide habitat for wild horses by implementing a reduction or closure to livestock grazing.	See comment response for AWHPC8.
AB3	Update antiquated AMLs, whether as part of this EA or separate decision-making process.	See comment response for AWHPC8.
AB4	The EA fails to provide reliable evidence that wild horses are overpopulated and 'excess' horses need to be removed.	See comment responses for AWHPC13 and IDA1.
LS	The BLM is urged to consider alternatives to the helicopter roundup that would ensure the BLM land in Wyoming is managed in a capacity that best serves the American Public as a whole.	See comment response for AWHPC8.
KAH1	If there is so much range degradation, why aren't livestock allotments also being reduced?	See comment responses for AWHPC2 and #2 of AWHPC8.
KAH2	The multiple use mandate should not come at the expense of the wild horses.	See comment response for AWHPC2.
KAH3	Objects to the administration of a two year treatment of PZP to all the mares released and administering it in October.	Comment noted.

Table A-2		
Number	Comment Summary	Response
KAH4	It appears that water range improvement projects are primarily for the benefit of cattle and do not take into consideration the migratory patterns of wild horses that are compromised by fencing to keep livestock in and wild horses out.	Range improvement projects undergo separate NEPA analysis to determine impacts for all resources, including wild horses.
WAA	There is minimal range deterioration by wild horses and burros for the simple reason they comprise a tiny fraction of the animals grazing public lands. The range damage is due to one cause and one only: cattle. Multiple use of public lands should be for wild horses and burros and wildlife, not for cattle.	Comment noted.
BW	This plan is just more 'managing for extinction' by the upsetting the social order with a 60:40 ration of males to females and giving the few returned mares PZP.	Comment noted.
CD	I am asking the legislators to consider the proposition of an eco-horse sanctuary proposed by Madeleine Pickens.	Comment noted.
KI	The BLM and contractors are notoriously inhumane in their methods resulting in stress, serious injuries, or death.	Appendix 2 of the EA identifies Standard Operating Procedures for wild horse gathers. Section 3.2 discusses impacts to wild horses.
SA	You are leaving genetically unsustainable populations with these actions.	Genetic information about the wild horse herd is discussed in Section 3.2.
MD1	The EA contains the absurd claim of excess horses, in relation to the very low AML for the number of acres of land in the HMA.	Comment noted.
MD2	The EA data is an improper use of the population modeling program.	See comment response for AWI26.
MD3	The EA does not indicate how BLM counts the actual number of livestock on the range. Thus it is likely that many more AUMs than reported are involved.	See comment response for AWHPC6.
MD4	The EA is neither consistent nor compliant with governing regulations and policies, particularly 43 CFR 4710.5(a).	See comment response for IDA4.
MD5	The BLM wild horse policy is inactive and reactive, but is not a proactive strategy for managing for multiple use.	Comment noted.
MD6	To fulfill its multiple use mission BLM	Comment noted.

Table A-2		
Number	Comment Summary	Response
	needs to actively manage the land, not just monitor.	
MD7	The use of helicopters to chase horses is inhumane.	Comment noted.
MD8	The BLM needs a full and open viewing process of the roundups and holding facilities.	Comment noted.
MD9	The BLM should have wild horse advocates individually or as a group sponsor horses.	Comment noted. The BLM provides for the adoption of wild horses through the Wild Horse and Burro Program.
MD10	Rental or lease of AUM permits could be negotiated for payment to the current holders and to BLM for grazing rights	Comment noted. Also, see comment response for AWHPC5.
MD11	The BLM should exert eminent domain and buy out the private land owners	Comment noted.
MD12	The BLM should turn sheep herders into horse herders that move horses from pasture to pasture	Comment noted.
MD13	The BLM should practice sustainable grassland management and agroecology, which would result in better forage and water resources.	Comment noted.
MD14	The BLM has failed to address recreational values of viewing horses.	The affected environment and environmental consequences for recreation are adequately addressed in Section 3.5.
JD1	The BLM is in violation of the Wild Horse and Burro Act of 1971, as is the consent degree	Please refer to Section 1.3 for compliance with applicable regulations.
JD2	Disagree with the reduction of the wild horse & burro areas from 303 areas in 1984 to less than 195 areas today.	Comment noted.
HW1	The plan to time the roundup during a more suitable time of year (oct/nov) than spring roundups is to be commended.	Comment noted.
HW2	I am glad to see BLM will be using PZP fertility control to a greater extent.	Comment noted.
HW3	There is a lack of documentation for the current population estimate of wild horses in the HMA complex.	See comment response for AWHPC6.
HW4	Suggested alternative: increase the AML	See comment response for AWHPC8.
HW5	Suggested alternative: reduce livestock grazing	See comment response for AWHPC8.
HW6	Suggested alternative: convert livestock	See comment response for AWHPC8.

Table A-2		
Number	Comment Summary	Response
	grazing allotments to increase forage for wild horses	
HW7	Suggested alternative: make range improvements to better distribute wild horses throughout the HMA	See comment response for AWHPC8.
CM1	Concern that the population inventory is not accurate and that reproductive rate estimates are invalid.	Comment noted. See comment response for AWHPC6.
CM2	BLM has failed to provide maps and legal land descriptions of where the trap sites will be located, how far wild horses will be driven to the trap site, where the temporary holding facilities will be, and where the long-term holding facilities are located.	Please refer to Section 2 and Appendix II of the EA. Additionally, as indicated in Sections 3, wildlife biologists and cultural resource specialists will be on-hand to ensure trap sites avoid impacts to wildlife, sensitive species, and cultural areas.
CM3	The current Proposed Action should provide Alternatives (public viewing, access times/days, and protocol) that accommodate the public's interest prior to signing the decision for removal.	Comment noted. Decisions regarding the BLM Wild Horse and Burro Program policies are outside the scope of this EA.
AM1	There is a significant impact to the wild horse population and rangeland ecosystem by the proposed removal of these horses.	Comment noted.
AM2	There is a significant impact to the human environment through the loss of the wild horses from the public lands.	Comment noted.
AM3	There is no legitimate reason to reduce the size of the herd, no damage to the range is occurring. The AML is too low.	See comment response for AWI7.
WGFD	After review of the EA, FONSI, and DR, we have no additional concerns pertaining to this proposed horse gather.	Comment noted.
In addition to the substantive comments summarized in this table, the BLM also received more than 3000 comments expressing affection for wild horses and/or general dislike of roundups and the policies of the BLM Wild Horse and Burro Program.		

Appendix II

Standard Operating Procedures

SOPs for Wild Horse Gathers

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* (March 2000).

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

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

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

1. Helicopter Drive Trapping. This capture method involves utilizing a helicopter to herd wild horses into a temporary trap.
2. Helicopter Assisted Roping. This capture method involves utilizing a helicopter to herd wild horses or burros to ropers.
3. Bait Trapping. This capture method involves utilizing bait (water or feed) to lure wild horses 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. Capture Methods used in the Performance of Gather Contract Operations

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

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

2. The rate of movement and distance the animals travel shall not exceed limitations set by the COR/PI who will consider terrain, physical barriers, weather, condition of the animals and other factors.
3. All traps, wings, and holding facilities shall be constructed, maintained and operated to handle the animals in a safe and humane manner and be in accordance with the following:
 - a. Traps and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for horses and 60 inches for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All traps and holding facilities shall be oval or round in design.
 - b. All loading chute sides shall be a minimum of 6 feet high and shall be fully covered, plywood, metal without holes.
 - c. All runways shall be a minimum of 30 feet long and a minimum of 6 feet high for horses, and 5 feet high for burros, and shall be covered with plywood, burlap, plastic snow fence or like material a minimum of 1 foot to 5 feet above ground level for burros and 1 foot to 6 feet for horses. The location of the government furnished portable fly chute to restrain, age, or provide additional care for the animals shall be placed in the runway in a manner as instructed by or in concurrence with the COR/PI.
 - d. All crowding pens including the gates leading to the runways shall be covered with a material which prevents the animals from seeing out (plywood, burlap, plastic snow fence, etc.) and shall be covered a minimum of 1 foot to 5 feet above ground level for burros and 2 feet to 6 feet for horses
 - e. All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking gates.
4. No modification of existing fences will be made without authorization from the COR/PI. The Contractor shall be responsible for restoration of any fence modification which he has made.
5. When dust conditions occur within or adjacent to the trap or holding facility, the Contractor shall be required to wet down the ground with water.
6. Alternate pens, within the holding facility shall be furnished by the Contractor to separate mares or jennies with small foals, sick and injured animals, and estrays from the other animals. Animals shall be sorted as to age, number, size, temperament, sex, and condition when in the holding facility so as to minimize, to the extent possible, injury due to fighting and trampling. Under normal conditions, the government will require that animals be restrained for the purpose of determining an animal's age, sex, or other necessary procedures. In these instances, a portable restraining chute may be necessary and will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering requires that animals be released back into the capture area(s). In areas requiring one or more satellite traps, and where a centralized holding facility is utilized, the contractor may be required to provide additional holding pens to segregate animals transported from remote locations so they may be returned to their traditional ranges. Either segregation or temporary marking and later segregation will be at the discretion of the COR.
7. The Contractor shall provide animals held in the traps and/or holding facilities with a continuous supply of fresh clean water at a minimum rate of 10 gallons per animal per day. Animals held for

10 hours or more in the traps or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. An animal that is held at a temporary holding facility after 5:00 p.m. and on through the night, is defined as a horse/burro feed day. An animal that is held for only a portion of a day and is shipped or released does not constitute a feed day.

8. It is the responsibility of the Contractor to provide security to prevent loss, injury or death of captured animals until delivery to final destination.
9. The Contractor shall restrain sick or injured animals if treatment is necessary. The COR/PI will determine if injured animals must be destroyed and provide for destruction of such animals. The Contractor may be required to humanely euthanize animals in the field and to dispose of the carcasses as directed by the COR/PI.
10. Animals shall be transported to final destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the COR/PI for unusual circumstances. Animals to be released back into the HMA following gather operations may be held up to 21 days or as directed by the COR/PI. Animals shall not be held in traps and/or temporary holding facilities on days when there is no work being conducted except as specified by the COR/PI. The Contractor shall schedule shipments of animals to arrive at final destination between 7:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday and Federal holidays, unless prior approval has been obtained by the COR. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours. Animals that are to be released back into the capture area may need to be transported back to the original trap site. This determination will be at the discretion of the COR.

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

1. Capture attempts may be accomplished by utilizing bait (feed or water) to lure animals into a temporary trap. If the contractor selects this method the following applies:
 - a. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc., that may be injurious to animals.
 - b. All trigger and/or trip gate devices must be approved by the COR/PI prior to capture of animals.
 - c. Traps shall be checked a minimum of once every 10 hours.
2. Capture attempts may be accomplished by utilizing a helicopter to drive animals into a temporary trap. If the contractor selects this method the following applies:
 - a. A minimum of two saddle-horses shall be immediately available at the trap site to accomplish roping if necessary. Roping shall be done as determined by the COR/PI. Under no circumstances shall animals be tied down for more than one hour.
 - b. The contractor shall assure that foals shall not be left behind, and orphaned.
3. Capture attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If the contractor with the approval of the COR/PI selects this method the following applies:
 - a. Under no circumstances shall animals be tied down for more than one hour.

- b. The contractor shall assure that foals shall not be left behind, or orphaned.
- c. The rate of movement and distance the animals travel shall not exceed limitations set by the COR/PI who will consider terrain, physical barriers, weather, condition of the animals and other factors.

C. Use of Motorized Equipment

1. All motorized equipment employed in the transportation of captured animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The Contractor shall provide the COR/PI with a current safety inspection (less than one year old) for all motorized equipment and tractor-trailers used to transport animals to final destination.
2. All motorized equipment, tractor-trailers, and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that captured animals are transported without undue risk or injury.
3. Only tractor-trailers or stock trailers with a covered top shall be allowed for transporting animals from trap site(s) to temporary holding facilities, and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of 6 feet 6 inches from the floor. Single deck tractor-trailers 40 feet or longer shall have two (2) partition gates providing three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing two (2) compartments within the trailer to separate the animals. Compartments in all tractor-trailers shall be of equal size plus or minus 10 percent. Each partition shall be a minimum of 6 feet high and shall have a minimum 5 foot wide swinging gate. The use of double deck tractor-trailers is unacceptable and shall not be allowed.
4. All tractor-trailers used to transport animals to final destination(s) shall be equipped with at least one (1) door at the rear end of the trailer which is capable of sliding either horizontally or vertically. The rear door(s) of tractor-trailers and stock trailers must be capable of opening the full width of the trailer. Panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of all trailers must be strong enough so that the animals cannot push their hooves through the side. Final approval of tractor-trailers and stock trailers used to transport animals shall be held by the COR/PI.
5. Floors of tractor-trailers, stock trailers and loading chutes shall be covered and maintained with wood shavings to prevent the animals from slipping.
6. Animals to be loaded and transported in any trailer shall be as directed by the COR/PI and may include limitations on numbers according to age, size, sex, temperament and animal condition. The following minimum square feet per animal shall be allowed in all trailers:
 - 11 square feet per adult horse (1.4 linear foot in an 8 foot wide trailer);
 - 8 square feet per adult burro (1.0 linear foot in an 8 foot wide trailer);
 - 6 square feet per horse foal (.75 linear foot in an 8 foot wide trailer);
 - 4 square feet per burro foal (.50 linear feet in an 8 foot wide trailer).

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

D. Safety and Communications

1. The Contractor shall have the means to communicate with the COR/PI and all contractor personnel engaged in the capture of wild horses utilizing a VHF/FM Transceiver or VHF/FM portable Two-Way radio. If communications are ineffective the government will take steps necessary to protect the welfare of the animals.
 - a. The proper operation, service and maintenance of all contractor furnished property is the responsibility of the Contractor. The BLM reserves the right to remove from service any contractor personnel or contractor furnished equipment which, in the opinion of the contracting officer or COR/PI violate contract rules, are unsafe or otherwise unsatisfactory. In this event, the Contractor will be notified in writing to furnish replacement personnel or equipment within 48 hours of notification. All such replacements must be approved in advance of operation by the Contracting Officer or his/her representative.
 - b. The Contractor shall obtain the necessary FCC licenses for the radio system
 - c. All accidents occurring during the performance of any task order shall be immediately reported to the COR/PI.
2. Should the contractor choose to utilize a helicopter the following will apply:
 - a. The Contractor must operate in compliance with Federal Aviation Regulations, Part 91. Pilots provided by the Contractor shall comply with the Contractor's Federal Aviation Certificates, applicable regulations of the State in which the gather is located.
 - b. Fueling operations shall not take place within 1,000 feet of animals.

G. Site Clearances

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

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

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

H. Animal Characteristics and Behavior

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

I. Public Participation

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

J. Responsibility and Lines of Communication

Rock Springs Field Office - Contracting Officer's Representative/Project Inspector

Jay D'Ewart

Rawlins Field Office - Contracting Officer's Representative/Project Inspector

Melanie Mirati

Alternate - Contracting Officer's Representative/Project Inspector

Jake Vialpando

Jonathan Sheeler

Roy Packer

Scott Fluer

Wyoming State Office - Contracting Officer's Representative/Project Inspector

N/A

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 Rawlins and Rock Springs Assistant Field Managers for Renewable Resources and the Rawlins and Rock Springs 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 Rock Springs and Canon City Corral offices. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries will be handled through the Assistant Field Managers for Renewable Resources. These individual will be the primary contact and will coordinate the contractor with the BLM Corrals to ensure animals are being transported from the capture site in a safe and humane manner and are arriving in good condition.

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

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

Appendix III
Standard Operating Procedures
for
Fertility Control Treatment

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

- The 22 month pelleted PZP vaccine would be administered by trained BLM personnel.
- The fertility control drug is administered with two separate injections: (1) a liquid dose of PZP is administered using an 18 gauge needle primarily by hand injection; (2) the pellets are preloaded into a 14 gauge needle. These are loaded on the end of a trocar (dry syringe with a metal rod) which is loaded into the jabstick which then pushes the pellets into the breeding mares being returned to the range. The pellets and liquid are designed to release the PZP over time similar to a time release cold capsule.
- Delivery of the vaccine would be as an intramuscular injection while the mares are restrained in a working chute. 0.5 cubic centimeters (cc) of the PZP vaccine would be emulsified with 0.5 cc of adjuvant (a compound that stimulates antibody production) and loaded into the delivery system. The pellets would be loaded into the jabstick for the second injection. With each injection, the liquid and pellets would be propelled into the left hind quarters of the mare, just below the imaginary line that connects the point of the hip and the point of the buttocks.
- All treated mares will be freeze-marked with two 3.5-inch letters on the left hip for treatment tracking purposes. The only exception to this requirement is that each treated mare can be clearly and specifically identified through photographs or markings. This step is to enable researchers to positively identify the animals during the research project as part of the data collection phase.
- At a minimum, estimation of population growth rates using helicopter or fixed wing surveys will be conducted the year preceding 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 mares).
- 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 mares). If during routine HMA field monitoring (on-the-ground), if data on mare to foal ratios can be collected, these data should also be shared with the NPO for possible analysis by the USGS.

- A PZP Application Data sheet will be used by the field applicators to record all the pertinent data relating to identification of the mare (including a photograph if the 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.
- A tracking system will be maintained by NPO detailing the quantity of PZP issued, the quantity used, disposition of any unused PZP, the number of treated mares by HMA, field office, and state along with the freeze-mark applied by HMA.

Appendix IV

Wild Horse Population Modeling

Population Model Overview

WinEquus is a program used to simulate the population dynamics and management of wild horses created by Stephen H. Jenkins of the Department of Biology, University of Nevada at Reno. For further information about this model, you may contact Stephen H. Jenkins at the Department of Biology/314, University of Nevada, Reno, NV 89557.

Detailed information is provided within the WinEquus program available at <http://unr.edu/homepage/jenkins>, and will provide background about the use of the model, the management options that may be used, and the types of output that may be generated.

The population model for wild horses was designed to help BLM evaluate various management strategies that might be considered for a particular area. The model uses data on average survival probabilities and foaling rates of horses to project population growth for up to 20 years. The model accounts for year-to-year variation in these demographic parameters by using a randomization process to select survival probabilities and foaling rates for each age class from a distribution of values based on these averages. This aspect of population dynamics is called environmental stochasticity, and reflects the fact that future environmental conditions that may affect wild horse population's demographics can't be established in advance. Therefore each trial with the model will give a different pattern of population growth. Some trials may include mostly "good" years, when the population grows rapidly; other trials may include a series of several "bad" years in succession. The stochastic approach to population modeling uses repeated trials to project a range of possible population trajectories over a period of years, which is more realistic than predicting a single specific trajectory.

The model incorporates both selective removal and fertility treatment as management strategies. A simulation may include no management, selective removal, fertility treatment, or both removal and fertility treatment. Wild horse and burro specialists can specify many different options for these management strategies such as the schedule of gathers for removal or fertility treatment, the threshold population size which triggers a gather, the target population size following a removal, the ages and sexes of horses to be removed, and the effectiveness of fertility treatment.

To run the program, one must supply an initial age distribution (or have the program calculate one), annual survival probabilities for each age-sex class of horses, foaling rates for each age class of females, and the sex ratio at birth. Sample data are available for all of these parameters. Basic management options must also be specified.

Population Modeling – Adobe Town and Salt Wells Creek HMA Complex

To complete the population modeling for the Adobe Town and Salt Wells Creek HMA Complex, version 1.40 of the WinEquus program, created April 2, 2002, was utilized.

Objectives of Population Modeling

Review of the data output for each of the simulations provided many useful 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

Initial age structure for the 2010 herd was developed from age structure data collected during the 2005 HMA complex gather. The following table shows the proposed age structure that was utilized in the population model for the Proposed Action and Alternatives:

Initial Age Structure

Age Class	Females	Males
Foal	106	115
1	32	28
2	92	66
3	26	30
4	16	27
5	16	6
6	8	24
7	23	22
8	20	26
9	15	15
10-14	16	26
15-19	5	25
20+	0	15
Total	375	425

All simulations used the survival probabilities, foaling rates, and sex ratio at birth that was supplied with the WinEquus population model for the Garfield HMA:

Sex ratio at Birth: 47% Females; 53% 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 removal parameters utilized in the population model for the Proposed Action and all Alternatives:

Removal Criteria

<i>Age</i>	<i>Percentages for Removals</i>	
	Females	Males
Foal	100%	100%
1	100%	100%
2	100%	100%
3	100%	100%
4	100%	100%
5	0%	0%
6	0%	0%
7	0%	0%
8	0%	0%
9	0%	0%
10-14	100%	100%
15-19	100%	100%
20+	100%	100%

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

**Contraception Criteria
(Alternative I)**

Age	Percentages for Fertility Treatment
Foal	0%
1	100%
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 all alternatives:

- Starting Year: 2010
- Initial gather year: 2010
- Gather interval: regular interval of three years

- Gather for fertility treatment regardless of population size: No
- Continue to gather after reduction to treat females: Yes
- Sex ratio at birth: 53% males
- Percent of the population that can be gathered: 80%
- Minimum age for long-term holding facility horses: Not Applicable
- Foals are not included in the AML
- Simulations were run for 10 years with 100 trials each

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

Population Modeling Parameters

Modeling Parameter	Alternative I Proposed Action (Remove to Low Limit of Management Range & Fertility Control)	Alternative II (Remove to Lower Limit of Management Range)	Alternative III No Action (No Removal & No Fertility Control)
Management by removal and fertility control	Yes	No	N/A
Management by removal only	No	Yes	N/A
Threshold Population Size for Gathers	1165	1165	N/A
Target Population Size Following Gathers	861	861	N/A
Gather for fertility control regardless of population size	No	No	N/A
Gathers continue after removals to treat additional females	Yes	No	N/A
Effectiveness of Fertility Control: year 1	94%	N/A	N/A
Effectiveness of Fertility Control: year 2	82%	N/A	N/A
Effectiveness of Fertility Control: year 3	68%	N/A	N/A

Results of WinEquus Population Modeling

Population modeling was completed for the proposed action and the alternatives. One hundred trials were run, simulating population growth and herd demographics to determine the projected herd structure for the next four years, or prior to the next gather. The computer program used simulates the population dynamics of wild horses. It was written by Dr. Stephen H. Jenkins, Department of Biology, University of Nevada, Reno, under a contract from the National Wild Horse and Burro Program of the Bureau of Land Management and is designed for use in comparing various management strategies for wild horses.

To date, one herd has been studied using the 2-year PZP vaccine. The Clan Alpine study, in Nevada, was started in January 2000 with the treatment of 96 mares. The test resulted in fertility rates in treated mares of 6% year one and 18% year two.

Interpretation of the Model

The estimated population of 1,950 wild horses in the Adobe Town and Salt Wells Creek HMA complex was based on a July 2009 census, and was used in the population modeling. Year one is the baseline starting point for the model, and reflects wild horse numbers immediately prior to the gather action and also reflects a slightly skewed sex ratio which favors males. A sex ratio of 53:47 was entered into the model for the post gather action population. In this population modeling, year one would be 2010. Year two would be exactly one year in time from the original action, and so forth for years three, four, and five, etc. Consequently, at year eleven in the model, exactly ten years in time would have passed. In this model, year eleven is 2020. This is reflected in the Population Size Modeling Table by “Population sizes in ten years” and in the Growth Rate Modeling Table by “Average growth rate in 10 years”. Growth rate is averaged over ten years in time, while the population is predicted out the same ten years to the end point of year eleven. The Full Modeling Summaries contain tables and graphs directly from the modeling program.

The initial herd size, sex ratio and age distribution for 2010 was structured by the WinEquus Population Model using data from the horses gathered and removed during the 2005 gather. This initial population data was then entered into the model and the model was used to predict various outcomes of the different alternatives, including the No Action Alternative for comparison purposes.

The parameters for the population modeling were:

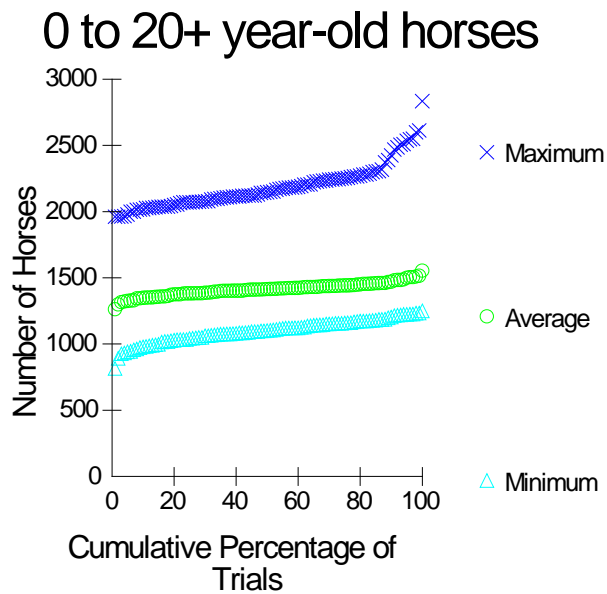
1. gather when population exceeds 1165 horses in the HMA
2. foals are not included in AML
3. percent to gather 80
4. three years between gathers
5. number of trials 100
6. number of years 10
7. initial calendar year 2010
8. initial population size 1950
9. population size after gather 861
10. implement selective removal criteria
11. fertility control Yes for Proposed Action(Alternative A) and No for Alternative B

Results – Proposed Action – Removal to 861 with Fertility Control

The parameters for the population modeling were:

- 1-10. The same as parameters listed above.
12. Yes, treat all mares released with fertility control.

Population Size and Modeling Graph and Table (Gather and Fertility Control)



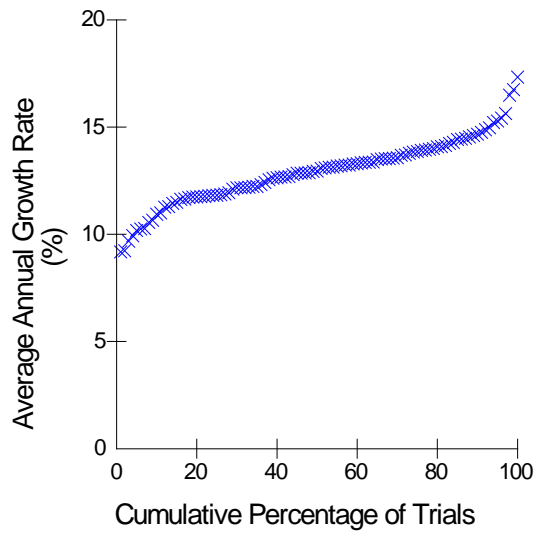
Population Sizes in 11 Years*

Minimum Average Maximum

<i>Lowest Trial</i>	815	1262	1961
<i>10th Percentile</i>	980	1349	2022
<i>25th Percentile</i>	1042	1382	2070
<i>Median Trial</i>	1103	1415	2147
<i>75th Percentile</i>	1160	1442	2252
<i>90th Percentile</i>	1209	1475	2446
<i>Highest Trial</i>	1250	1553	2834

*** 0 to 20+ year-old horses**

Growth Rate Modeling Graph and Table (Gather and Fertility Control)



Average Growth Rate in 10 Years

Lowest Trial 9.2

10th Percentile 11.0

25th Percentile 11.8

Median Trial 13.0

75th Percentile 13.9

90th Percentile 14.7

Highest Trial 17.3

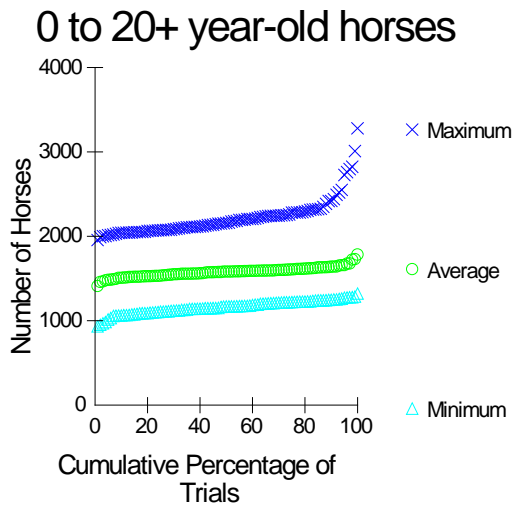
Results – Alternative B – Removal to 861 with No Fertility Control

The parameters for the population modeling were:

1-10. same as parameters listed above.

11. No, do not treat mares released with fertility control.

Population Size and Modeling Graph and Table (Gather Only)

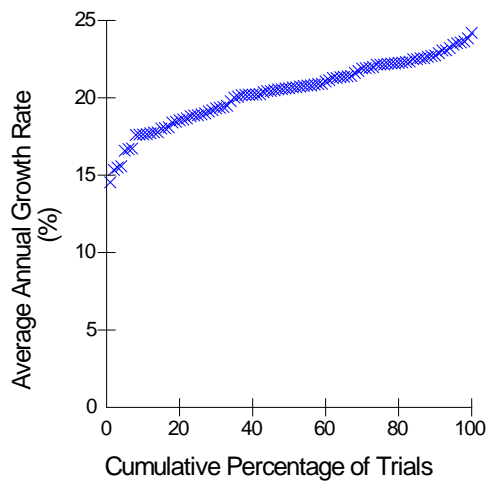


*Population Sizes in 11 Years**

	<i>Minimum</i>	<i>Average</i>	<i>Maximum</i>
<i>Lowest Trial</i>	932	1411	1956
<i>10th Percentile</i>	1063	1509	2042
<i>25th Percentile</i>	1107	1534	2072
<i>Median Trial</i>	1168	1581	2159
<i>75th Percentile</i>	1221	1608	2280
<i>90th Percentile</i>	1250	1640	2429
<i>Highest Trial</i>	1321	1783	3278

** 0 to 20+ year-old horses*

Growth Rate Modeling Graph and Table (Gather Only)



Average Growth Rate in 10 Years

Lowest Trial 14.5

10th Percentile 17.6

25th Percentile 18.9

Median Trial 20.6

75th Percentile 22.2

90th Percentile 22.8

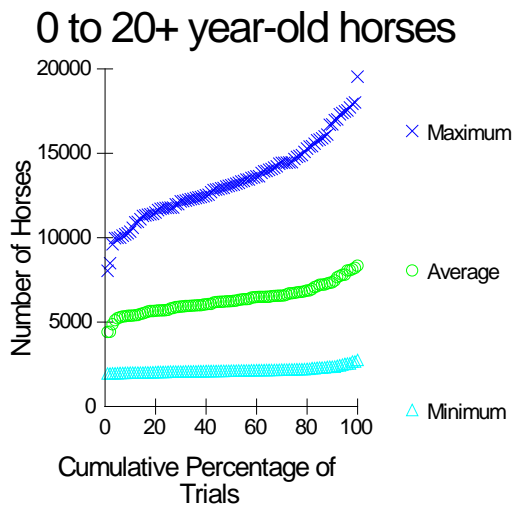
Highest Trial 24.2

Results – No Action

The parameters for the population modeling were:

1. Do not gather in 2010
2. Foals are not included in AML
3. Percent to gather 0

Population Size Modeling Graph and Table (No Action)

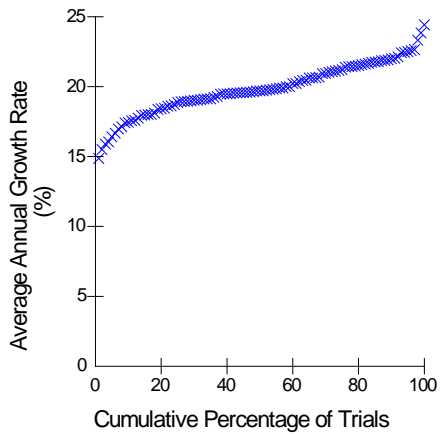


*Population Sizes in 11 Years**

	<i>Minimum</i>	<i>Average</i>	<i>Maximum</i>
<i>Lowest Trial</i>	1958	4411	8039
<i>10th Percentile</i>	2008	5377	10473
<i>25th Percentile</i>	2066	5762	11774
<i>Median Trial</i>	2126	6246	13125
<i>75th Percentile</i>	2201	6739	14724
<i>90th Percentile</i>	2361	7404	16836
<i>Highest Trial</i>	2761	8338	19537

* 0 to 20+ year-old horses

Growth Rate Modeling Graph and Table (No Action)



Average Growth Rate in 10 Years

- Lowest Trial* 14.9
- 10th Percentile* 17.5
- 25th Percentile* 18.9
- Median Trial* 19.7
- 75th Percentile* 21.3
- 90th Percentile* 22.0
- Highest Trial* 24.4

This table compares the projected population growth for the proposed action and the alternatives at the end of the ten-year simulation. The population averages are from the median trial.

Modeling Statistic Adobe Town & Salt Wells Creek HMA Complex	Proposed Action	Alternative B – No Fertility Control	No Action
Population in Year One	861	861	1950
Median Growth Rate	13.0%	20.6%	19.7%
Average Population	1415	1581	6246
Lowest Average Population	1262	1411	4411
Highest Average Population	1553	1783	8338

Appendix V
Livestock Grazing Status within the Adobe Town Salt Wells Complex

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	FO & HMA
Sand Creek	01208		2,839	2009	205	7%	Sheep	Winter	RFO AT
				2008	87	3%			
				2007	197	7%			
				2006	0	0%			
				2005	99	3%			
Rife	04002	1	508	2009	508	100%	Cattle	Summer	RSFO SW
				2008	426	84%			
				2007	426	84%			
				2006	426	84%			
				2005	378	74%			
Vermillion Creek	04003	4	12,140	2009	5,222	43%	Cattle and Sheep	Fall Winter Spring	RSFO SW
				2008	4,544	37%			
				2007	3,872	32%			
				2006	2,048	17%			
				2005	4,211	35%			
Alkali Creek	04004	2	2,283	2009	1,596	70%	Cattle and Sheep	Fall Winter Spring	RSFO SW
				2008	1,649	72%			
				2007	1,785	78%			
				2006	352	15%			
				2005	1,510	66%			
Horseshoe Wash	04006	1	7,663	2009			Cattle and Sheep	Winter	RSFO SW
				2008					
				2007					
				2006					
				2005					
Pine Mountain	04007	3	7,763	2009	4,474	58%	Cattle and Sheep	Yearlong	RSFO SW
				2008	3,646	47%			
				2007	4,511	58%			
				2006	4,112	53%			
				2005	4,469	58%			

AT - Adobe Town
SW - Salt Wells
RFO - Rawlins Field Office
RSFO - Rock Springs Field Office

Appendix V
Livestock Grazing Status within the Adobe Town Salt Wells Complex

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	FO & HMA
Salt Wells	04009	2	2,618	2009	513	20%	Cattle	Summer	RSFO SW
				2008	281	11%			
				2007	0	0%			
				2006	0	0%			
				2005	0	0%			
Mellor Mountain	04027	2	6,101	2009	1,440	24%	Cattle	Yearlong	RSFO SW
				2008	1,845	30%			
				2007	1,556	26%			
				2006	1,361	22%			
				2005	1,329	22%			
Hiawatha Tridistrict (39% of acres in RSFO; 11% in RFO)	04300	1	5,602	2009	3,337	60%	Sheep	Fall Winter Spring	CO RSFO SW
				2008	3,211	57%			
				2007	2,476	44%			
				2006	2,771	49%			
				2005	2,109	38%			
Canyon-Horseshoe (29% of acres are in RSFO)	04326	1	2,103	2009	387	18%	Cattle and Sheep	Fall Winter Spring	RFO RSFO SW
				2008	0	0%			
				2007	370	18%			
				2006	976	46%			
Continental	10506	1	2,830	2009	1,440	51%	Cattle	Summer	RFO AT
				2008	1,605	57%			
				2007	1,507	53%			
				2006	1,338	47%			
				2005	1,506	53%			
Cow Creek	10509	1	2,629	2009	1,595	61%	Cattle Sheep	Summer Winter	RFO AT
				2008	1,037	39%			
				2007	1,241	47%			
				2006	726	28%			
				2005	1,035	39%			

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Appendix V
Livestock Grazing Status within the Adobe Town Salt Wells Complex

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	FO & HMA
Crooked Wash	10510	1	87	2009	66	76%	Cattle	Summer	RSFO SW
				2008	86	98%			
				2007	75	87%			
				2006	12	13%			
				2005	56	65%			
Espitalier	10511	1	2,775	2009	1,106	40%	Cattle Sheep	Summer Winter	RFO AT
				2008	850	31%			
				2007	787	28%			
				2006	761	27%			
Grindstone	10512	1	413	2009	0	0%	Sheep	Winter	RFO AT
				2008	0	0%			
				2007	0	0%			
				2006	0	0%			
				2005	0	0%			
Little Powder Mountain	10513	2	1,507	2009	157	10%	Cattle Sheep	Summer Winter	RFO AT
				2008	191	13%			
				2007	75	5%			
				2006	136	5%			
				2005	114	8%			
Powder Mountain	10519	1	1,304	2009	0	0%	Cattle Sheep	Summer Winter	RFO AT
				2008	0	0%			
				2007	112	9%			
				2006	725	56%			
				2005	675	52%			
Red Creek	10521	1	2,612	2009	500	19%	Cattle Sheep	Fall to Spring	RFO AT
				2008	327	13%			
				2007	836	32%			
				2006	687	26%			
				2005	1,018	39%			

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Appendix V
Livestock Grazing Status within the Adobe Town Salt Wells Complex

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	FO & HMA
Rotten Springs	10523	3	1,463	2009	87	6%	Sheep	Winter	RFO AT
				2008	677	46%			
				2007	0	0%			
				2006	112	8%			
				2005	143	10%			
			1,820	2009	303	17%	Cattle	Summer	RFO AT
				2008	262	14%			
				2007	109	6%			
				2006	541	30%			
				2005	61	3%			
Willow Creek	10528	1	1,679	2009	1,678	100%	Cattle Sheep	Summer Winter	RFO AT
				2008	422	25%			
				2007	0	0%			
				2006	0	0%			
				2005	0	0%			
Rock Springs	13018	20	107,901	2009	47,857	44%	Cattle Sheep Horses (west of the Green River)	Yearlong (primarily winter use)	RSFO SW/AT
				2008	47,091	44%			
				2007	42,050	39%			
				2006	44,672	41%			
				2005	51,098	47%			
Corson Springs	20507	1	1,189	2009	1,189	100%	Cattle	Summer	RSFO AT
				2008	1,138	96%			
				2007	1,138	96%			
				2006	1,077	91%			
				2005	1,077	91%			

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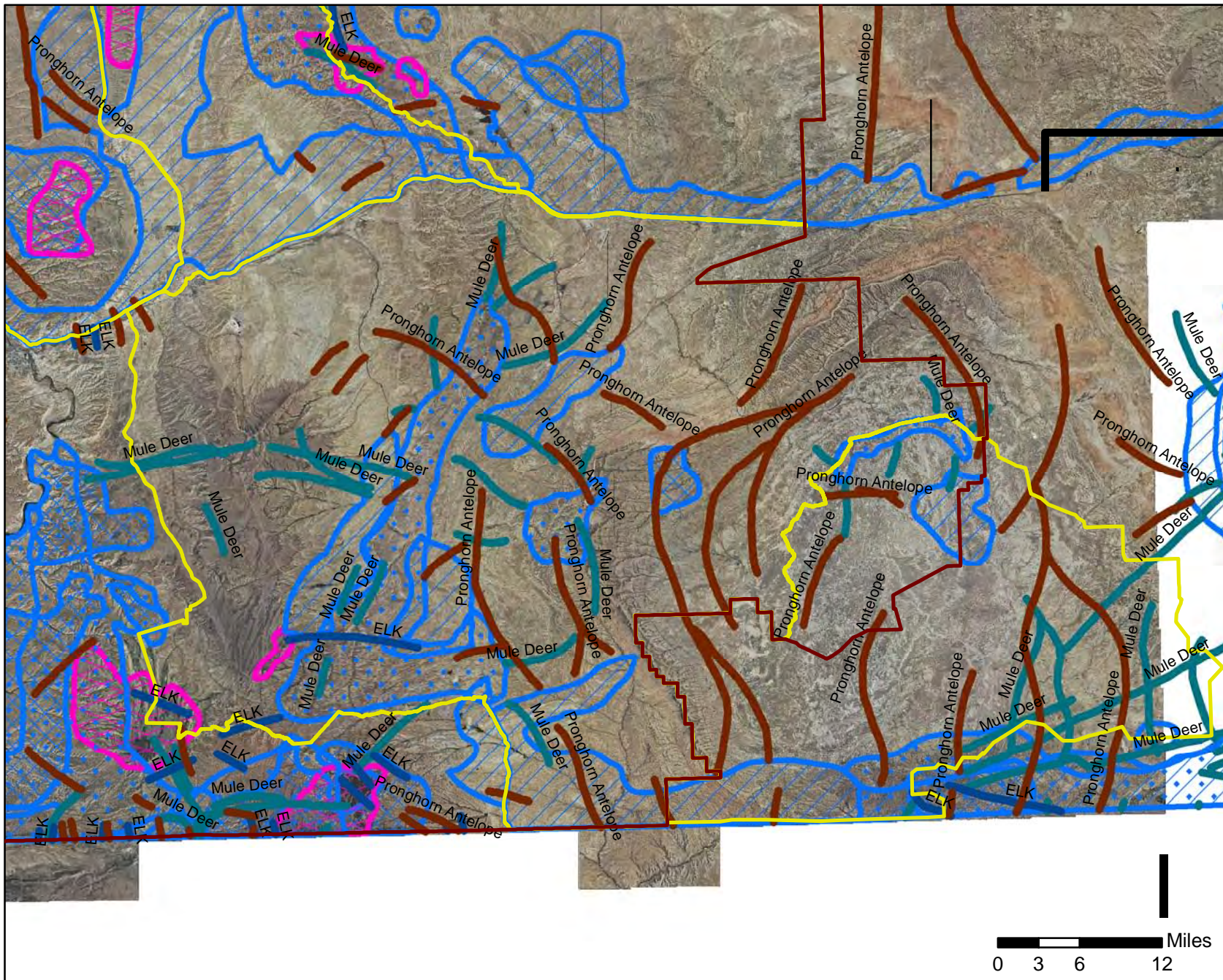
Appendix VI

Maps of Known Wildlife Habitat Locations



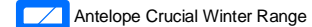
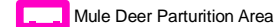
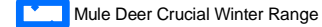

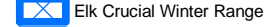
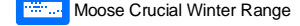
Wild Horse Gather for Adobe Town - Salt Wells HMA

Big Game layers

7-13-2010
 WYW167762
 J Caldwell



Legend

-  hma_current
-  RSFO Boundary
-  Antelope Crucial Winter Range
-  Mule Deer Parturition Area
-  Mule Deer Crucial Winter Range
-  Elk Parturition Area
-  Elk Crucial Winter Range
-  Moose Crucial Winter Range

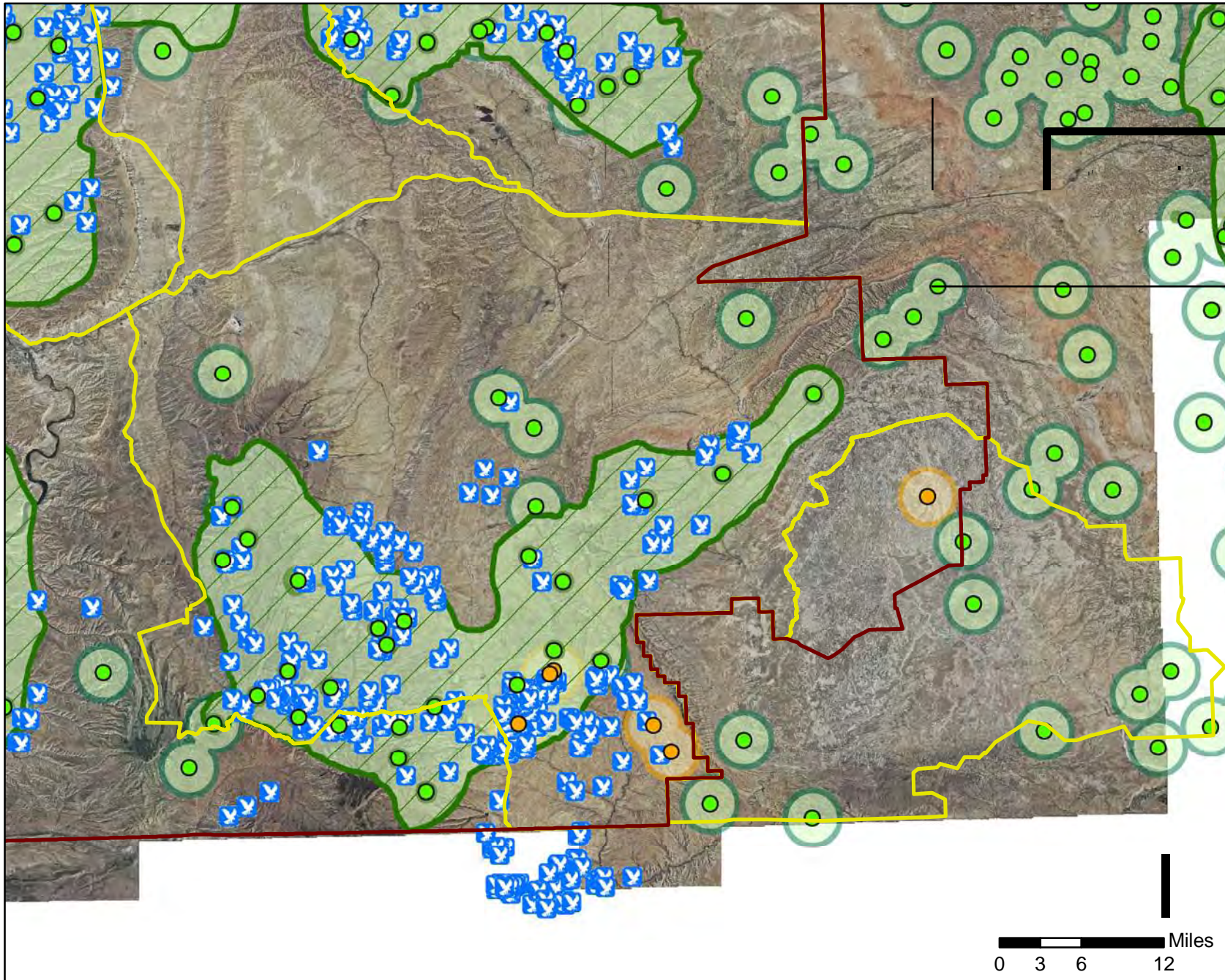


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Wild Horse Gather for Adobe Town - Salt Wells HMA Sage-grouse layers

7-13-2010
WYW167762
J Caldwell



Legend

- hma_current
- RSFO Boundary
- Sage-grouse Leks
- New Sage-grouse Leks
- Sage-grouse Winter Locations
- WYGF Sage-grouse Core Areas
- Sage-grouse Lek NSO
- Sage-grouse Nesting Habitat
- 2 Mile Buffer of New Leks



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