

Environmental Assessment

Adobe Town and Salt Wells Creek Herd Management Areas (Complex) Wild Horse Gather

WY-040-EA13-82

July 2013



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 and Salt Wells Creek
Herd Management Areas (Complex)
Wild Horse Gather**

Prepared by

**Bureau of Land Management
High Desert District
Rock Springs Field Office
Rock Springs, Wyoming
Rawlins Field Office
Rawlins, Wyoming**

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1.0 Introduction

1.1 Background Information

Historically, the Adobe Town and Salt Wells Creek Herd Management Areas (HMAs) have been managed separately by the Rawlins Field Office (RFO) and the Rock Springs Field Office (RSFO). In 2003, the two field offices began managing the two HMAs under joint cooperative management because there are no physical or geographical boundaries to restrict movement of wild horses between the two HMAs. Past capture, census, genetic health, and distribution data (BLM unpublished) indicate movement and interchange among the horses of these two HMAs. For the remainder of this document the two HMAs will be referred to collectively as the Adobe Town and Salt Wells Creek Complex (ATSW Complex), although each HMA will be referenced individually for analysis purposes. Refer to Figure 1 for a map of the project area.

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) to analyze the environmental effects of wild horse gather operations and potential population control methods (including fertility control treatment) to achieve and maintain the established Appropriate Management Level (AML) for the ATSW Complex. The BLM has determined that excess wild horses are present in the ATSW Complex.

In addition to the excess wild horses that need to be removed within the ATSW Complex, BLM has received a written request to remove wild horses from private lands located within the HMA boundaries. In accordance with statute and regulation, the BLM must remove stray wild horses from private lands as soon as practicable upon receipt of a written request. The removal of wild horses from private lands at the request of the landowner is normally categorically excluded from NEPA analysis (USDI 2008, 516 Department Manual 11.9).

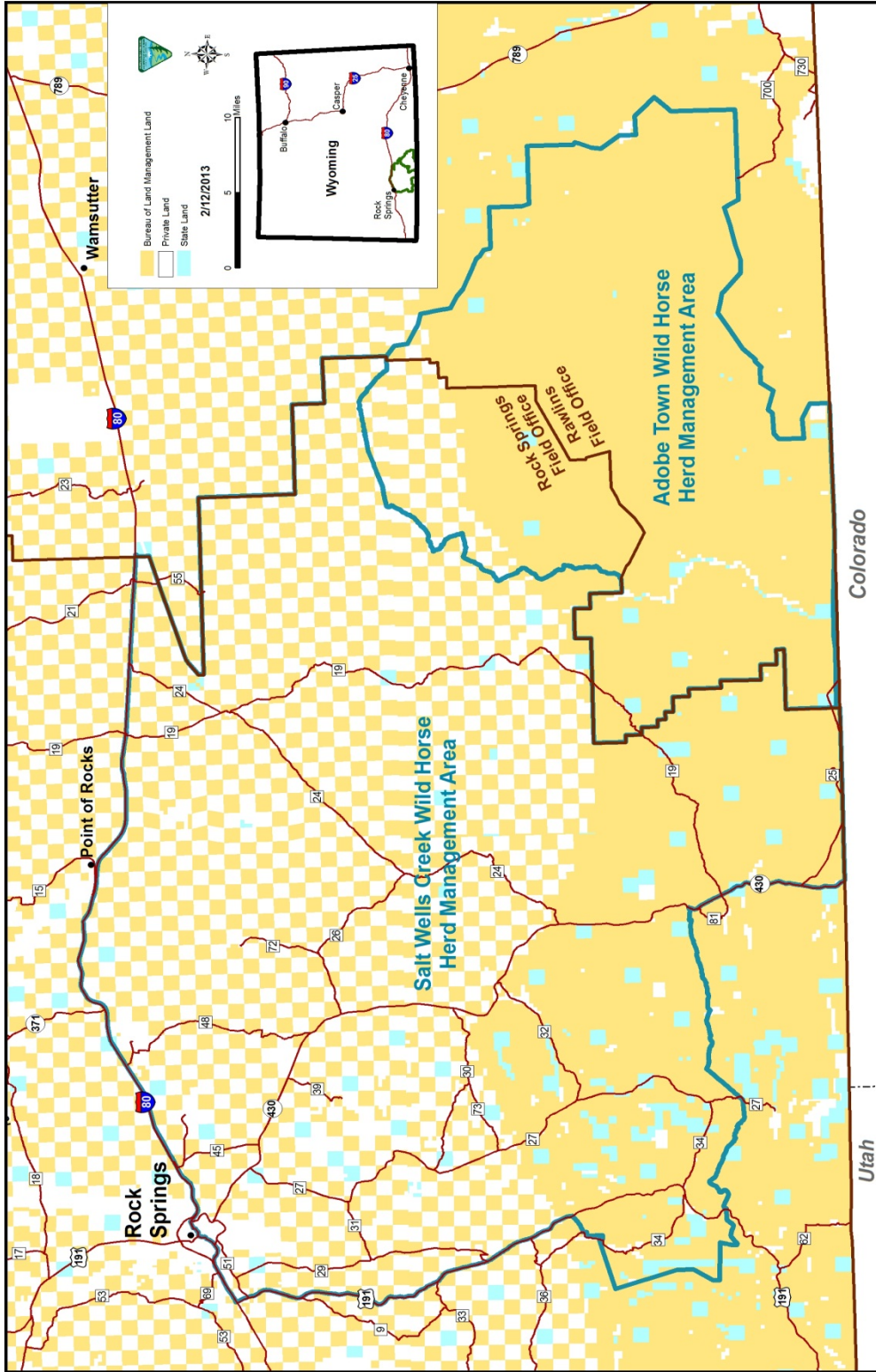
The proposed project area (ATSW Complex) encompasses 1,618,624 acres of public, State, and private lands in Carbon and Sweetwater counties in southwest Wyoming (Table 1 and Figure 1).

Table 1. Project Area

HMA	Federal Acres (BLM)	Other Acres	Total Acres
Adobe Town	417,916	30,000	447,916
Salt Wells Creek	690,400	480,308	1,170,708
ATSW Complex	1,108,316	510,308	1,618,624

Figure 1. Map of the Affected Area

Adobe Town and Salt Wells Creek Wild Horse Herd Management Areas



Project Area Wild Horse Population Estimates/Projections

Aerial survey and distribution flights were completed in May of 2012 in the ATSW Complex. The May 2012 survey documented direct counts of approximately 1,005 wild horses in the ATSW Complex, including approximately 433 wild horses within the Adobe Town HMA and approximately 572 wild horses within the Salt Wells Creek HMA.

The projected population after the 2013 foaling season is presented in Table 1. Population numbers are anticipated to increase by 20% annually to compensate for the foal crops.

Table 2. Projected Population After 2013 Foaling Season

HMA	AML	May 2012 Census	2012 Foal Crop (20% of population)	2013 Foal Crop (20% of adjusted 2012 population)	Projected 2013 Population
Adobe Town	610-800	433	87	104	624
Salt Wells Creek	251-365	572	114	137	823
ATSW Complex	861-1,165	1,005	201	241	1,447

Based upon all information available at this time, the BLM has determined that approximately 586 excess wild horses need to be removed from the ATSW Complex. This determination is based on the following factors including, but not limited to:

- The Adobe Town HMA projected population in the summer of 2013 is 624 wild horses. This estimate is based on the direct count population inventory conducted in May 2012 and adding 20% for foal production for 2012 and 2013.
- The AML for Adobe Town HMA is 610-800 wild horses.
- The Salt Wells Creek HMA estimated population in the summer of 2013 is 823 wild horses. This estimate is based on the direct count population inventory conducted in May 2012 and adding 20% for foal crop for 2012 and 2013.
- The Salt Wells Creek HMA AML is 251-365 wild horses.
- Drought conditions that have persisted within this region are limiting water availability and forage production (Appendix VI).

Analysis of the above information indicates that excess wild horses are present and require immediate removal. Changes to the AML are appropriate only if multiple use allocations are being adjusted through the land-use planning process, or if monitoring data demonstrates that the AML is either set too high or too low within the existing multiple use allocations and after the BLM conducts the appropriate environmental analyses and provides opportunities for public input through a public decision-making process. The BLM manages wild horses at the established AMLs and removes animals in excess of the established AML range. Establishing AML as a population range allows for the periodic removal of excess animals to the low range of AML and allows for subsequent population growth up to the high range of AML between removals (gathers).

In addition to the excess wild horses that need to be removed within the ATSW Complex, the BLM has received a written request to remove wild horses from private lands located within the HMAs boundaries.

In accordance with statute and regulation, the BLM shall remove stray wild horses from private lands as requested.

As a result, any decision of the authorized officer will be implemented effective on or after August 15, 2013 under authority provided in Title 43 of the Code of Federal Regulations (CFR), section 4770.3(c).

1.2 Purpose and Need

The purposes of the proposed action are to maintain AML in the Salt Wells Creek and Adobe Town HMAs in conformance with the Green River Resource Management Plan (RMP) (BLM 1997a) and the Rawlins RMP (BLM 2008b), respectively; and to remove wild horses from private lands as requested. The need for this action is to remove excess animals in order to achieve and maintain a thriving natural ecological balance between wild horse populations, wildlife, livestock, vegetation, and water resources and to prevent undue or unnecessary degradation of the public lands by protecting the range from deterioration associated with overpopulation of excess wild horses within and outside the ATSW Complex boundaries, as authorized under Section 1333 (b) (2) of the Wild Free-Roaming Horses and Burros Act of 1971, as amended (WFRHBA). This would also meet multiple use and sustained yield objectives for the RFO and RSFO as identified in the Rawlins RMP (BLM 2008b) and Green River RMP (BLM 1997a), respectively. Additionally, the BLM has received a written request to remove wild horses from private lands including those within the ATSW Complex and needs to remove these wild horses in accordance with 43 CFR 4720.2-1 and a 2013 consent decree.

The implementation of the proposed action or the action alternative would assure that wild horses are managed at the minimum feasible level of management as required in Section 1333(a) of the WFRHBA. Applying fertility control protocol 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. It would also fulfill BLM's duties of the WFRHBA to remove wild horses from private lands under Section 1334.

The proposed management actions are also needed to be in conformance with a court-entered consent decree. In April 2013, the U.S. District Court for Wyoming entered a consent decree between BLM and the Rock Springs Grazing Association in case 11-CV-263-NDF (2013 Consent Decree). The 2013 Consent Decree resolved litigation involving BLM's responsibilities to remove wild horses from private lands under Section 4 of the WFRHBA, 16 USC 1334. Under the consent decree BLM committed to gather and remove wild horses from checkerboard lands within Salt Wells Creek and Adobe Town HMAs in 2013. The proposed action to remove wild horse from checkerboard lands is necessary to meet the terms of the 2013 Consent Decree. When first proposed, the management actions also conformed to the August 2003 consent decree confirmed by the United States District Court for Wyoming in case number 03-CV-169-D ("2003 Consent Decree"). The 2003 Consent Decree is a settlement agreement between the State of Wyoming and the 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 is determined to be over the established AML, the BLM has until December 15th of the year of the next budget cycle from discovery to remove excess wild horses to reduce the population down to AML. However, the 2003 Consent Decree's ten-year expires August 28, 2013.

Decision to Be Made: The BLM will select the action to be implemented to achieve and maintain the established AML for the ATSW Complex and to respond to the request for removal of wild horses from private lands within the HMAs boundaries.

The decision to be made would not set or adjust AMLs, which were set through previous planning-level decisions. Future decisions regarding long-term management within the HMAs would continue to be accomplished through a land use planning process. Additionally, the decision would not adjust livestock

use, which has been established through prior planning-level decisions which have complied with NEPA requirements and provided opportunity for public review and input.

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

Conformance with Existing Land Use Plans

The gathering and removal of excess wild horses from the ATSW Complex are in conformance with both the Green River RMP Record of Decision approved on August 8, 1997 and the Rawlins RMP Record of Decision approved on December 24, 2008. Wild horse HMAs and AMLs were established and confirmed through the Green River and Rawlins RMP planning processes.

The Green River RMP 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 (page 33).

The Rawlins RMP objectives for managing 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; 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 effects to domestic horse populations; 5) Maintain habitat for existing AMLs; 6) Conduct all activities in compliance with relevant court orders and agreements.

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” (BLM 1997b). The proposed action will assist in maintaining the health of the public lands within each HMA and within the ATSW Complex. A copy of the BLM Wyoming “Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management” is available upon request from the BLM.

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

When first planned, the proposed action and other action alternatives needed to be in conformance with the 2003 Consent Decree that provides, “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 Department of the Interior 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.” The proposed action and other action alternatives are consistent with the terms of the 2003 Consent Decree. However, the ten-year term of the 2003 Consent Decree will terminate August 28, 2013, unless extended by written agreement of the parties.

Conformance with April 2013 Consent Decree, *Rock Springs Grazing Association v. Salazar* (Civil Action No. 11-CV-263-NDF)

The proposed action and other action alternatives are in conformance with the 2013 Consent Decree approved in case 11-CV-263-NDF on April 3, 2013. The 2013 Consent Decree resolved litigation involving claims that BLM had violated section 4 of the WFRHBA, 16 USC 1334, by failing to fulfill an October 2010 written request to remove strayed animals from RSGA lands. Relevant to the proposed action, under the consent decree BLM committed to gather and remove wild horses from checkerboard lands within Salt Wells Creek and Adobe Town HMAs in 2013.

Relationship to Statutes, Regulations, or Other Plans

Public lands are managed under the Federal Land Policy and Management Act of 1976 (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 U.S.C. 1701(a)(8).1732(a)). FLPMA also stresses harmonious and coordinated management of the resources without permanent impairment of the environment (43 U.S.C. 1701(c)).

The proposed action and action alternatives are in conformance with the WFRHBA 16 U.S.C. 1333(b)(2) and 1334, and its implementing regulations 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.*
- 43 CFR 4720.2-1: *Upon written request from the private landowner to any representative of the Bureau of Land Management, the authorized officer shall remove stray wild horses and burros from private lands as soon as practicable. The private landowner may also submit the written request to a Federal marshal, who shall notify the authorized officer. The request shall indicate the numbers of wild horses or burros, the date(s) the animals were on the land, legal description of the private land, and any special conditions that should be considered in the gathering plan.*
- 43 CFR 4720.2-2: *If the authorized officer determines that proper management requires the removal of wild horses and burros from areas that include private lands, the authorized officer shall obtain the written consent of the private owner before entering such lands. Flying aircraft over lands does not constitute entry.*

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 ATSW Complex have been received throughout the last several years. On November 7, 2012, the BLM issued a scoping letter for this proposed wild horse gather. In excess of 5,500 comment letters/emails were received from individuals, organizations, and agencies following the issuance of the ATSW Complex, Adobe Town and Salt Wells Creek 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 5,500 letters or emails were submitted as a form letter. All comment letters were reviewed and considered and resulted in approximately 43 unique substantive comments (see Appendix I, Summary of Scoping Comments). All the substantive comments will be considered in the development of the EA.

The following issues were identified for analysis:

- Impacts to wild horses within the HMA
- Effects on wildlife and threatened and endangered species
- Impacts to vegetation, soils, and watersheds
- Effects on recreation and wilderness values
- Effects related to livestock grazing
- Cultural resource conflicts

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 and utilize Fertility Control
- Alternative B: Remove Excess Animals to Lower Limit of AML range
- Alternative C: No Action Alternative - No Gather or Removal

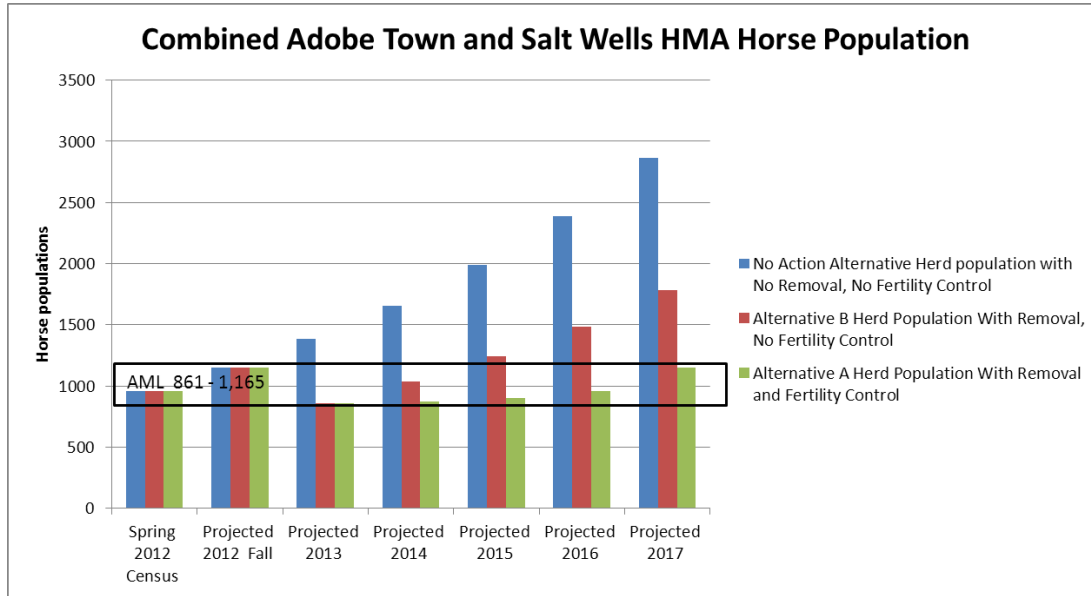
The proposed action and other action alternatives were developed to meet the BLM purpose and need. Alternative C (No Gather or Removal) does not comply with the WFRHBA and FLPMA, nor meet the purpose and need for action; it is included as a basis for comparison with the action alternatives.

Table 2 and Figure 2 present the three alternatives and projected wild horse populations from 2012 through 2017 for the ATSW Complex.

Table 3. ATSW Complex Population Projections

	Spring 2012 Census	2012 Fall	2013	2014	2015	2016	2017
Alternative A	1,005	1,206	861	871	903	960	1,153
Alternative B	1,005	1,206	861	1,033	1,239	1,488	1,785
No Action Alternative	1,005	1,206	1,447	1,736	2,084	2,500	3,001

Figure 2. ATSW Complex Horse Population



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 include 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 would be on-site, as needed, to examine animals and make recommendations to the BLM for care and treatment of wild horses in accordance with Instruction Memorandum No. 2009-041, *Euthanasia of Wild Horses and Burros for Reasons Related to Health, Handling and Acts of Mercy* (BLM 2009a). 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 the RSFO.)
- Selection of animals for removal and/or release would also be guided by Instruction Memorandum No. 2010-135, *Gather Policy, Selective Removal Criteria, and Management Considerations for Reducing Population Growth Rates* (BLM 2010a). (A copy of this IM can be reviewed upon request at the RSFO.)
- *Policy and procedures for safe and transparent visitation by the public and media at wild horse gather operations* would be in accordance with Instruction Memorandum No. 2013-058 *Wild Horse and Burro Gathers: Public and Media Management* (BLM 2013a).
- The BLM is committed to the humane treatment and care of wild horses and burros through all phases of its program. The gathering of wild horses will be in accordance with Instruction Memorandum No. 2013-059, *Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy* (BLM 2013b).
- Advance planning for observation of gather operations can minimize the potential for unanticipated situations to occur and ensure the safety of the animals, staff, and Contractor personnel, as well as the public/media. In response to this, an Incident Command System will be

followed during the gather operations as guided by Instruction Memorandum No. 2013-060, *Wild Horse and Burro Gathers: Management of Incident Command System* (BLM 2013c).

- All wild horses outside of the ATSW Complex HMAs would be removed.
- All wild horses on private lands and on the checkerboard lands within the ATSW Complex would be removed in accordance with the 2013 Consent Decree.

Descriptions of Alternatives Considered In Detail

2.1 Alternative A: Proposed Action – Remove Excess Animals to Lower Limit of AML Range with Fertility Control

The Proposed Action is to gather approximately 85% of the estimated current population (or about 1,229 wild horses) in August 2013 or when funding permits in the ATSW Complex.

The projected summer 2013 wild horse population for Adobe Town HMA is 624. Approximately 530 wild horses (85% of the estimated current population) would be gathered in Adobe Town. Of those gathered, approximately 14 wild horses would be removed to achieve the low AML of 610. Approximately 200 mares would also be treated with Porcine Zona Pellucida (PZP) (a fertility control drug) and released back into the Adobe Town HMA along with all of the other wild horses gathered, except for the 14 proposed to be removed. Of the 516 wild horses returned, approximately 200 of them would be fertility-treated mares and the remaining 316 wild horses returned would consist of approximately 258 studs and 58 additional mares and/or colts.

The projected summer 2013 wild horse population for the Salt Wells Creek HMA is 823. Approximately 699 wild horses (85% of the estimated current population) would be gathered and approximately 572 of these wild horses would be removed. Approximately 127 wild horses would be released back into the southern portion of the Salt Wells Creek HMA to maintain the low AML of 251. Approximately 50 of the mares released back would be treated with PZP and released as part of the 127 wild horses released back into the southern portion of the HMA. (Of the 127 returned approximately 50 would be treated mares, 63 would be studs, and 14 would be additional mares and/or colts.)

The estimated current wild horse population within the ATSW Complex is based on the May 2012 flights and adjusted for two years of foal crops. Of the animals gathered, approximately 586 excess wild horses (572 in Salt Wells Creek and 14 in Adobe Town) would be removed and shipped to BLM holding facilities in Rock Springs, Wyoming, Cañon City, Colorado and /or any other BLM holding facility, where they would be prepared for adoption and/or sale to qualified individuals and/or long-term holding. The projected wild horse population remaining on the range following the gather would be approximately 861 wild horses in the ATSW Complex. There would be approximately 610 wild horses in Adobe Town HMA and 251 wild horses in the Salt Wells Creek HMA. Gather operations are anticipated to take between four and six weeks for completion.

The 861 wild horses remaining in the ATSW Complex would include approximately 643 wild horses that would be returned to the HMAs. Approximately 321 would be studs and 250 would be fertility control treated mares and 72 additional studs, mares and/or colts. After selection and treatment, these horses would be released into the immediate gather area.

All the mares released would be subject to fertility control experimentation research protocol with a 22-month treatment of 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 without Fertility Control

Alternative B is to gather approximately 85% (or about 699 wild horses) of the estimated current population (823 horses) in the Salt Wells Creek HMA and gather approximately 14 wild horses in the Adobe Town HMA in August 2013 or when funding permits. The estimated current wild horse population within the ATSW Complex is based on the May 2012 flights and adjusted for two years of foal crops. Of the animals gathered, approximately 586 excess wild horses would be removed from the ATSW Complex. Approximately 572 excess wild horses would be removed from the Salt Wells Creek HMA and 14 excess wild horses would be removed from the Adobe Town HMA. Excess wild horses would be shipped to BLM holding facilities in Rock Springs, Wyoming, Cañon City, Colorado, and/or any other BLM holding facility where they would be prepared for adoption and/or sale to qualified individuals and/or long-term holding. The projected wild horse population remaining on the range following the gather would be about 861 wild horses in the ATSW Complex. Gather operations are anticipated to take between three to five weeks for completion.

The 861 wild horses remaining in the ATSW Complex would include approximately 87 wild horses that would be returned to the HMAs. Approximately 44 would be studs and 43 would be mares. After selection, these horses would be released into the immediate gather area.

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 August 2013 or when funding permits. There would be no active management to control the size of the wild horse populations at this time. Wild Horse populations would continue to exceed AML, and continue to increase by approximately 20-25% annually. The growing wild horse population would consume additional forage which would not be available for other species to consume. However, existing management including monitoring would continue.

The WFRHBA 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. It also requires that BLM remove wild horses from private lands upon landowner request. Additionally, the FLPMA directs that management of public lands be on the basis of multiple use and sustained yield and that BLM prevent unnecessary or undue degradation of public lands. The No Action Alternative would not comply with the WFRHBA or with applicable federal regulations and Bureau policy; FLPMA, nor would it comply with Wyoming's Rangeland Health Standards and Guidelines for Livestock Grazing Management, or be in conformance with the applicable 2003 and 2013 consent decrees. The No Action Alternative 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

This alternative would involve changing the established AMLs to allow for a greater number of wild horses within the HMAs. This alternative was not brought forward for detailed analysis because it would be outside of the scope of the analysis, and would be inconsistent with the WFRHBA which directs the Secretary of the Interior, through the BLM, to immediately remove excess wild horses and to manage for multiple uses and to remove wild horses from private lands upon landowner request. This gather document and subsequent Decision Record is not the appropriate mechanism for adjusting the AML of an HMA. Available data shows that excess wild horses are present on the range, that excess horses need to be removed, and that there is insufficient water and forage within the Complex to support an increase in the wild horse AML.

In addition, the RSGA currently owns or controls a majority of the private lands in the checkerboard (see EA sec. 3.1) within the Salt Wells Creek HMA and a portion of the Adobe Town HMA. In 1979, RSGA and two wild horse advocacy groups (Wild Horses Yes! and the International Society for the Protection of Mustangs and Burros), entered into agreements 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). Based on this agreement, the 1997 Green River RMP established an AML of 251-365 wild horses within the Salt Wells Creek HMA and the Rock Springs Field Office portion of the Adobe Town HMA, which is managed with the Rawlins Field Office, and has a combined established AML of 610-800 wild horses. Deviating from existing policy and planning decisions, are not considered options nor are they within the scope of this EA. In addition, the 2013 Consent Decree provides that consideration of modifications to existing AML would occur through the land use planning process. Therefore, this alternative was considered but eliminated from detailed analysis.

Use of Bait and/or Water Trapping

An alternative considered but not carried forward for detailed analysis was the use of bait and/or water trapping (without the use of a 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. 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.

Other Alternative Capture Techniques

This alternative includes capture methods other than helicopters to gather excess wild horses, 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 under consideration as an alternative to the helicopter-capture method. Use of wranglers 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 (1,216 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 Horse Removal, 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 removal. This alternative does not meet the purpose and need to maintain the AML, as the existing population of wild horses within the HMAs is currently above the established AML and excess wild horses need to be removed in compliance with applicable regulations

described in Section 1.3. Such an alternative would not meet the purpose and need to remove wild horses from private lands as requested. Nor would it be in conformance with the applicable consent decrees.

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 AML, as the existing population of wild horses within the HMAs is currently above the established AML 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. In addition, such an alternative would not be in conformance with the applicable consent decrees.

Gathering to High AML

Gathering wild horses to achieve a post-gather population size at the upper level of the AMLs would result in AML being exceeded with the next foaling season (Spring 2014). This would be problematic for several reasons. The upper levels of the AML established for a HMA represent the maximum population for which a thriving natural ecological balance can be maintained. The lower level represents the number of animals that should remain in the HMAs following a wild horse gather in order to allow for a periodic gather cycle of approximately every four years and to prevent the population from exceeding the established AML between gathers. The need to gather below the upper range of AML has been recognized by the IBLA, which has held that:

“...the term AML within the context of the statute to mean[s] that "optimum number" of wild horses which results in a thriving natural eco- logical balance and avoids a deterioration of the range (Animal Protection Institute of America v. Nevada BLM. 1989b)...Proper range management dictates removal of horses before the herd size causes damage to the range land. Thus, the optimum number of horses is somewhere below the number that would cause damage. Removal of horses before range conditions deteriorate ensures that horses enjoy adequate forage and an ecological balance is maintained” (Animal Protection Institute of America et al. v. Rock Springs District BLM 1991).

Additionally, gathering to the upper range of AMLs would result in the need to follow up with another gather within one year, and could result in over utilization of vegetation resources, damage to the rangeland, and increased stress to wild horses. For these reasons, this alternative did not receive further consideration in this document. Such an alternative would not be in conformance with the applicable consent decrees.

Control of Wild Horse Numbers by Natural Means

This alternative would use natural means, such as natural predation and weather, to control the wild horse population. This alternative was eliminated from further consideration because it would be contrary to the WFRHBA which requires the BLM to protect the range from deterioration associated with an overpopulation of wild horses and to remove wild horses from private lands upon landowner request. The alternative of using natural controls to achieve a desirable AML has not been shown to be feasible in the past. Wild horse populations in the HMAs are not substantially regulated by predators, as evidenced by the approximate 20% annual increase in the wild horse populations within these HMAs. In addition, wild horses are a long-lived species with documented foal survival rates exceeding approximately 95% and are

not a self-regulating species. This alternative would allow for a steady increase in the wild horse populations which would continue to exceed the carrying capacity of the range and would cause increasing damage to the rangelands until severe range degradation or natural conditions that occur periodically – such as blizzards or extreme drought – cause a catastrophic mortality of wild horses in the HMAs. Such an alternative would not be in conformance with the applicable consent decrees.

Remove or Reduce Livestock within the HMAs

This alternative would involve no removal of wild horses and would instead address the excess wild horse numbers through the removal of livestock or reductions in livestock grazing allocations within the HMAs. This alternative was not brought forward for analysis because it would be inconsistent with the current land use plans for the HMAs and with multiple use management. This gather document and subsequent Decision Record is not the appropriate mechanism for adjusting the authorized livestock use within the allotments associated with the HMAs in order to reallocate forage to wild horses.

The proposal to reduce livestock would not meet the purpose and need for action identified in Chapter 1.2 Purpose and Need for Action:

The purpose of the proposed action is to maintain AML in the Salt Wells Creek and Adobe Town HMAs in conformance with the Green River Resource Management Plan (RMP) and the Rawlins RMP, respectively; and to remove wild horses from private lands as requested.

This alternative would also be inconsistent with the WFRHBA, which directs the Secretary of the Interior, through the BLM, to immediately remove excess wild horses and to remove wild horses from private lands at request of the landowner. Livestock grazing can only be reduced or eliminated if the BLM follows regulations at 43 CFR 4100 and must be consistent with multiple use allocations set forth in the land-use plan. Such changes to livestock grazing cannot be made through a wild horse gather decision, and are only possible if the BLM first revises the land-use plans to re-allocate livestock forage to wild horses and to eliminate or reduce livestock grazing.

Furthermore, re-allocation of livestock AUMs to increase the wild horse AMLs would not achieve a thriving natural ecological balance due to differences in how wild horses and livestock graze. Unlike livestock which can be confined to specific pastures, limited periods of use, and specific seasons-of-use so as to minimize impacts to vegetation during the critical growing season or to riparian zones during the summer months, wild horses are present year-round and their impacts to rangeland resources cannot be controlled through establishment of a grazing system, such as for livestock. Thus, impacts from wild horses can only be addressed by limiting their numbers to a level that does not adversely impact rangeland resources and other multiple uses.

While the BLM is authorized to remove livestock from HMAs “if necessary to provide habitat for wild horses or burros, to implement herd management actions, or to protect wild horses or burros from disease, harassment or injury” (43 CFR 4710.5), this authority is usually applied in cases of emergency and not for general management of wild horses since it cannot be applied in a manner that would be consistent with the existing land-use plans. (43 CFR 4710.1).

For the reasons stated above, this alternative was dropped from detailed analysis. For modifications in long-term multiple use management, changes in forage allocations between livestock and wild horses would have to be re-evaluated and implemented through the appropriate public decision-making processes to determine whether a thriving natural ecological balance can be achieved at a higher AML and in order to modify the current multiple use relationship established in the land-use plans. Nor would such an alternative would not be in conformance with the applicable consent decrees.

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 ATSW Complex specifically, Adobe Town HMA and the Salt Wells Creek HMA is tiered to the Final EISs for the Rawlins RMP (BLM 2008a, pp. 139-142) and Green River RMP (BLM 1996, pp. 345-346), respectively.

The ATSW Complex consists of two herd management areas: Adobe Town and Salt Wells Creek HMAs. The Adobe Town HMA, managed by the Rawlins Field Office and the Rock Springs Field Office, is approximately 448,000 acres in size. The Salt Wells Creek HMA, managed by the Rock Springs Field Office, is approximately 1,170,708 acres of which 690,400 acres are public and 480,308 acres are private. 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 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 RSGA currently owns or controls approximately 1 million acres of private lands within the checkerboard, including a majority of the private lands in the checkerboard within the Salt Wells Creek HMA and a portion of the Adobe Town HMA.

In 1979, the Mountain States Legal Foundation and RSGA filed a lawsuit in the U.S. District Court for Wyoming (*Mountain States Legal Foundation v. Andrus*, No. C79-275K) seeking to require the BLM and the U.S. Marshal to remove wild horses that had strayed onto within its private lands within the Wyoming checkerboard. In a 1981 Order, the court partially granted plaintiffs' motion for summary judgment, and ordered the BLM to remove all wild horses from the checkerboard lands except that number that RSGA voluntarily agreed to leave and to remove all excess wild horses from the Rock Springs District within two years. *Mountain States Legal Foundation v. Andrus*, No. C79-275K, Order Granting Motion for Partial Summary Judgment (D. Wyo. March 1, 1981). In 1982, the court amended its 1981 order to provide that "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 U.S.C. 1332(f)." *Mountain States Legal Foundation v. Watt*, No. C79-275K, Order Amending Judgment Pro Tunc (D. Wyo. Feb. 19, 1982).

In a letter dated October 4, 2010, RSGA requested that, in accordance with Section 4 of the WFRHBA, 16 U.S.C. 1334, the BLM remove all wild horses that have strayed onto its private lands within the checkerboard, including lands within the ATSW Complex.

On June 27, 2011, RSGA filed a lawsuit (*Rock Springs Grazing Assoc. v. Salazar*, 11-CV-263-NDF) in U.S. District Court for Wyoming contending that the BLM had violated Section 4 of the WFRHBA by failing to fulfill its October 2010 request to remove strayed animals. The BLM and RSGA negotiated a proposed settlement agreement, and on April 3, 2013 the court approved a consent decree and dismissed

the case. Relevant to the proposed action, under the consent decree, the BLM committed to gather and remove wild horses from checkerboard lands within Salt Wells Creek and Adobe Town HMAs in 2013.

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 one and one half million acres of public, State, and private lands are included in the analysis area (Figure 1). 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 Kinney Rim. 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 and winter snowfall. Much of the precipitation from summer thunderstorms runs off in numerous drainages. Some of this water is captured in reservoirs or pits. Flowing wells, springs, and creeks are the primary sources of water for wild horses, livestock, and wildlife.

Resource Issues Present or Potentially Affected

Table 4. Resources Considered

Determination¹	Resource	Rationale for Determination
NI	Air Quality/ Green House Gas Emissions	The Wyoming Department of Environmental Quality (WDEQ) is the authorized agency to administer the Clean Air Act. WDEQ monitoring data identifies that there are no Air Quality concerns within the project area.
NP	Areas of Critical Environmental Concern	No ACECs are present in the horse gathering areas
PI	Cultural Resources	See Section 3.8
NI	Environmental Justice	The action alternatives were reviewed in accordance with Executive Order 12898 and no impacts to minority or low-income populations are expected.
NP	Farmlands: Prime or Unique	No Prime or Unique Farmlands (as defined by 7 CFR 657.5) are present in the project area.
NP	Floodplains	No floodplains are present in the project area of the gather.
NP	Fuels/Fire Management	No fuels projects are planned or proposed within the project area. All wild land fires and fire management would be managed according to BLM protocol.
NI	Invasive Species/ Noxious Weeds	Some halogeton is present at some of the trap sites. Treatment is handled through

Determination¹	Resource	Rationale for Determination
		Cooperative Agreement between the BLM and Sweetwater County.
NI	Lands/Access	No rights of way or other land use authorizations are required to implement the proposed action or alternatives.
PI	Livestock Grazing	See Section 3.7
PI	Native American Religious Concerns	See Section 3.8
NP	Paleontology	An inventory of the proposed horse gathering locations did not indicate the presence of paleontological sites.
NI	Public Health & Safety	Public Health and Safety would not be impacted by any of the alternatives.
PI	Rangeland Health Standards	The wild horse gather would not impact rangeland health. The effect on rangeland health standards of fewer horses after the gather, or the effect of a greater number of horses from not gathering, is addressed throughout the document.
PI	Recreation	See Section 3.5
NI	Socio-Economics	The proposed action or alternatives would not affect the socioeconomic status of the county or nearby towns.
PI	Soils	See Section 3.4
PI	Special Status Species	See Section 3.3
PI	Threatened, Endangered or Candidate Plant Species	See Section 3.3
PI	Threatened, Endangered or Candidate Animal Species	See Section 3.3
NP	Wastes (hazardous or solid)	There are no known hazardous or solid wastes present in the project area. The proposed action or alternatives would not contribute to hazardous or solid wastes.
NI	Water Resources/Quality (drinking/surface/ground)	Currently, the WDEQ administers water quality and water quantity programs. Furthermore, WDEQ is the responsible agency for the administration of the Clean Water Act. The horse gather would not impact water resources. Therefore, since WDEQ is the responsible agency for

Determination¹	Resource	Rationale for Determination
		administering water quality, and since the WDEQ has not provided any information in regards to water quality issues or implementing a water monitoring program within the area, this will not be discussed in detailed analysis.
NP	Wetlands/Riparian Zones	No wetlands or riparian areas are present in the horse gathering area.
NP	Wild and Scenic Rivers	There are no WSR within the project area.
PI	Wilderness	See Section 3.6
NP	Woodland/Forestry	There are no areas that meet the definition of woodlands/forestry within the project area.
PI	Vegetation	See Section 3.4
NI	Visual Resources	The project is determined not to affect the visual management of the area.
PI	Wild Horses and Burros	See Section 3.2
PI	Wildlife/Fisheries	See Section 3.3

¹Determination:

PI: Potential Impact due to one or more action alternatives; therefore, analyzed in the NEPA document.

NP: Not Present in the area impacted by the action alternatives.

NI: No Impact expected from action alternatives.

3.2 Wild Horses

Affected Environment

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 ATSW 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 upland areas near the Brady Plant in the Rock Springs Grazing Allotment within the Salt Wells Creek HMA. In 2012, the Rock Springs Field Office monitoring data indicated the Brady Plant Key Area showed heavy utilization (72.7%) by wild horses. Heavy utilization (61-80% use) on the Key Species data form defines heavy use as “More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain.” The Brady Plant area was selected as a wild horse key area because of the known past use by wild horses. Wild horse sign such as manure, stud piles and

heavily used trails with horse tracks and a few antelope tracks were present at the time of data collection. Livestock use was not detected at the Brady Plant Key Area.

Southwest Wyoming is becoming drier and warmer; 2012 is one of the driest drought years on record since meteorological data was recorded. Since the 1950s, multi-year droughts have become more frequent in Wyoming (see Appendix VI).

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 not analyzed in this EA.

The summer 2013 projected population for the Adobe Town HMA (including colts of 2013) is 624 wild horses. This number is based upon direct count of horses during the BLM May 2012 flights conducted in accordance with Instruction Memorandum No. 2010-057, *Gather Policy, Selective Removal Criteria, and Management Considerations for Reducing Population Growth Rates* (BLM 2010b).

The RSGA and wild horse advocacy groups entered into agreements 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 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.

The summer 2013 projected population for the Salt Wells Creek HMA portion of the ATSW Complex is 823 wild horses (including colts of 2013) based on the direct count of horses during the May 2012 flights conducted in accordance with Instruction Memorandum No. 2010-057, *Gather Policy, Selective Removal Criteria, and Management Considerations for Reducing Population Growth Rates* (BLM 2010b).

Wild horses were last removed from the ATSW Complex in November 2010 when 2,269 wild horses were captured and 1,939 wild horses were removed.

The ATSW Complex low range AML of 861 wild horses should allow sufficient diversity and eliminate any potential for inbreeding depression to occur. Genetic variability data was collected in 2010 for both HMAs within the ATSW Complex. The hair samples were analyzed by Dr. E. Gus Cothran, Department of Veterinary Integrative Bioscience, Texas A&M University, College Station, Texas. His conclusions and recommendations regarding genetic variability in the Adobe Town and Salt Wells Creek herds are summarized here.

Adobe Town HMA:

“Genetic variability of this herd is quite high probably due to mixed ancestry and a large population size. There is a somewhat high percentage of variation that is at risk but this is unlikely to be a problem unless there is a drastic reduction in population size. Genetic variation levels have remained high in comparison to 2003. Genetic similarity results suggest a herd with mixed ancestry but a high probability of Spanish blood....Current variability levels are high enough that no action is needed as long as there is no serious reduction in population size” (Cothran 2011).

Salt Wells Creek HMA:

“Genetic variability of this herd in general is on the high side but some of the diversity may be related to unrecognized population subdivision. Even if this is true, the *Ho* values indicated good levels of genetic variation. Genetic similarity results suggest a herd with mixed ancestry. Current variability levels are high enough that no action is needed at this point” (Cothran 2011).

Additional genetic samples may 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 in evaluating various management plans and possible outcomes for the 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, by HMA, to analyze possible differences that could occur to the wild horse populations between alternatives. 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 1,972 in the Adobe Town HMA and 2,645 in the Salt Wells Creek HMA. According to the modeling, the proposed action (Alternative A) results in the lowest average population of 875 in the Adobe Town HMA and 486 in the Salt Wells Creek HMA while Alternative B resulted in an average population of 999 in the Adobe Town HMA and 568 in the Salt Wells Creek HMA. Graphic and tabular results are displayed in detail in Appendix IV (Wild Horse Population Modeling).

Effects Common to Alternative A and 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 effects 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 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 confirm 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 from 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 necessary.

Other injuries may occur after a wild 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, wild 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 2% (extrapolated from 2007 gather data).

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 using the humane care and treatment methods as described in BLM Instruction Memorandum 2013-059 (BLM 2013b). Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy. The policy described in Instruction Memorandum 2009-041 (BLM 2009a) is used as a guide to determine if animals meet the criteria and should be euthanized (Appendix II, SOPs). 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 effects have proven to be temporary in nature with most, if not all, effects disappearing within hours to several days of release. No observable effects associated with these impacts would be expected within one month of release, except for a heightened awareness of human presence.

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

Approximately 586 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) in accordance with BLM Instruction Memorandum 2013-059 (BLM 2013b). 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 Contracting Officer's representative (COR) or Project Inspector (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 effects 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 effects 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 4750.

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 Instruction Memorandum No. 2013-032, *Direction for the Sale of Wild Horse and Burros - Interim Guidance* (BLM 2013d).

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 approximately 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.

Long-term pastures 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. Approximately 49,258 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 for 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 LTPs 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 starting in 2009 through the appropriations language each fiscal year through 2013 for this purpose. Sales of wild horses are conducted in accordance with Instruction Memorandum No. 2013-032, *Direction for the Sale of Wild Horse and Burros - Interim Guidance* (BLM 2013d).

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

Under this alternative, all mares (~250) gathered and then selected for release back to the HMA would be treated with a 22-month 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 2014 foaling season. The PZP treatment would be expected to slow population growth starting in 2015 and be effective for 1-3 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 2017).

Mares treated with fertility control would be studied as part of ongoing fertility control research. For more information about fertility control, 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 "2" on Salt Wells Creek HMA or "3" on Adobe Town HMA on the left neck.

Impacts of Alternative B Under Alternative B, the post-gather population of wild horses for the ATSW Complex would be approximately 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 (20%), wild horse numbers are expected to exceed the upper limit of the AML range in Year 3 following the gather (about 2016).

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 2013, wild horse populations would be expected to grow to about 1447 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 the numbers of wild horses increase. 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 quality and quantity of 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. If livestock operators take nonuse, the maintenance of livestock water sources would no longer take place, 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 forage 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 (2008, 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

One federally designated threatened, endangered, proposed, or candidate animal species has the potential to be present within the project area.

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 would 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 in 2010 for the Greater Sage-Grouse (*Centrocercus urophasianus*) to determine if it warrants listing under the Endangered Species Act (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 would 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.

Sensitive Species Wildlife

A number of animal species potentially present in the project area have been accorded “sensitive species” status (BLM 2010c). 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, 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, 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, bluehead sucker, flannelmouth sucker, and Colorado River cutthroat trout.

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

Environmental Consequences

Impacts of Alternative A Trap sites would 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. 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. No direct impact to sensitive fish species would occur during the gather. The effect of lessening impacts to water and riparian resources benefits all aquatic species by reducing sedimentation and maintaining quality habitats.

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 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. No direct impact to sensitive fish species would occur from gathering horses. The effect of increasing impacts to water and riparian resources due to expanding horse herds negatively affects all aquatic species by increasing sedimentation and reducing or eliminating aquatic or riparian habitats.

3.4 Vegetation, Special Status Plants, Soils, and Watershed

Affected Environment

There are a variety of vegetation types in the ASTW Complex where wild horses can be found. 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 wildrye, 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 saltbush, 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 ecological 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 ATSW Complex 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 ATSW Complex. 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 encompasses portions of the Colorado River Basin (primarily Bitter Creek which is a tributary to Green River, which in turn contributes to the Colorado River). The eastern portion of the ATSW Complex extends into the Continental Divide closed basin. Colorado River Basin water quality is the purview of the State of Wyoming but can be affected by the management of adjacent lands. Additional land management guidance is provided by various, agencies, compacts and agreements that are focused primarily but not exclusively upon the Colorado River Drainage. Sand Creek is the largest drainage in the Adobe Town area, which flows into the Little Snake River. The soils are highly erodible and can be easily transported down drainages and downstream through 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.

Allotment use data, including the dates of the most recent Land Health Evaluation and identified standards (if any) that were not being met during that evaluation, is presented in Appendix V for all allotments within the ATSW Complex. The majority of allotments have averaged less than 50% utilization of active livestock AUMs for the last five years, with a low of 0% use and a high of 100% use in a few allotments. This decrease in utilization for grazing has mostly been a voluntary effort by permittees to increase forage and improve rangeland conditions.

Key monitoring areas for measuring forage utilization were established in the spring of 2010 in the upland areas near the Brady Plant in the Rock Springs Grazing Allotment within the Salt Wells Creek HMA. In 2012, the Rock Springs Field Office monitoring data indicate for the Brady Plant Key Area showed heavy utilization (72.7%) by wild horses. Heavy utilization (61-80% use) on the Key Species data form defines heavy use as "More than half of the available forage on key species appears to have been utilized. Less

than 10 percent of the current seedstalks remain.” Wild horses are uneven grazers, meaning that they do not always graze an area in its entirety before moving on to another. Areas where they do graze have been noted to have a lower abundance of cover grasses, lower shrub cover, lower total vegetative cover, lower species richness, and less continuous shrub canopy (Beever and Herrick 2006).

Increasing wild horse utilization due to accelerating numbers is occurring in the ATSW Complex and is reducing vegetative cover and vigor, particularly, in those areas immediately adjacent to water sources. The reduction of vegetative cover and increased trampling resulting from higher wild horse numbers has led to increased soil compaction and surface disturbance leading to potential accelerated run off and subsequent soil erosion.

Allotments within the Upper Colorado River Basin and Rawlins Field Office (Adobe Town, Continental, Cow Creek, Espitalier, Grindstone Springs, Little Powder Mountain, Powder Mountain, Red Creek, Rotten Springs, Sand Creek, Willow Creek, Corson Springs) were recently assessed (BLM 2012). All of the allotments are currently meeting upland and riparian standards with a static to upward trend in soils/watershed and vegetation health. Recent drought years (2002, 2006, and 2012) have resulted in plant mortality throughout multiple areas within the watershed, even in observation areas that were receiving moderate to no forage use. High numbers of wild horses have for some years left little residual forage, and along with water shortages, have led to wild horses moving to other allotments, particularly to those allotments within the RSFO Salt Wells HMA. Over the last decade, livestock permittees have taken voluntary nonuse and have used on average 34% of their permitted AUM use and as low as 10% in some years.

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 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.

Threatened, Endangered, Proposed and Candidate Species

One federally designated threatened, endangered, proposed, or candidate plant species has the potential to be present within the project area.

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

Sensitive Species

Sensitive plants that have the potential to occur within the project area include the Cedar Rim thistle, Ownbey's thistle, and Gibben's penstemon. Habitats for these plants are described later in the document (see Table 2).

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.

Table 5. Wyoming Special Status Plant Species

Common Name	Scientific Name	Habitat
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 animal (livestock, wild horses and wildlife) concentration, in areas of oil and gas development, 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, black henbane, halogeton, Russian thistle, gumweed, goosefoot, and assorted mustards.

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.

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 be exacerbated by wild horse use because the maintenance of AMLs would help the trend towards 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.

This alternative would result in the lowest number of horses for the longest period of time. As a result, it would have the greatest potential positive impact on both riparian health and water quality.

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.

This alternative would result in a reduction in horse numbers but the rate of population increase would not be affected. As a result, it would have a potential short-term positive impact on both riparian health and water quality but would be less effective in the long term.

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 year-long grazing pressure by wild horses, and in locations where seasonal grazing from livestock still occur, which is not conducive to optimum plant health and vigor. Soil erosion and plant health would continue to be 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 would increase and long-term loss of productivity would occur. More desirable species, such as Indian ricegrass, needle-and-thread, 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 an increase in the amount of bare ground. Similar results would occur in the isolated riparian habitat within the ATSW Complex, 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 travel further in search of better forage or reliable water sources. Impacts would continue over time and would affect areas beyond the HMA. Eventually, long-term rangeland health would deteriorate. In the absence of healthy rangelands, animal health would eventually be reduced, 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 the existing native plant community. Invasive, non-native species would increase following increased soil disturbance and reduced native plant vigor and abundance. The greater vegetation loss would be around water locations. Watershed health throughout the area would continue to decrease, resulting in increased sediment and salinity delivery throughout the Colorado River basin. These impacts would continue over time.

The No Action alternative would allow wild horse populations to increase within the ATSW Complex 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 would occur due to destruction of vegetation along streambanks.

Invasive, non-native plant species would 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 similar vegetation shifts outside the HMAs as horses travel further in search of better forage. Impacts would continue over time and would affect areas beyond the HMAs.

Reclamation efforts would be less likely to succeed as wild horse populations increase. All well pads would require fencing for initial recovery of vegetation; however, once fences were 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. 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 and adjacent rangelands.

This alternative would result a continued increase in horse numbers. As a result, it would have a potential long-term negative impact on both riparian health and water.

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 the 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 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 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 may 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 ATSW Complex 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

Affected Environment

Management of wilderness and Wilderness Study Areas (WSAs) is directed by BLM Manual 6340-Management of BLM Wilderness and FLPMA section 603. Wild horses are considered an important attribute of the Adobe Town WSA. Wilderness Study Areas 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 boundaries of the ATSW Complex 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

The Taylor Grazing Act of 1934, as amended, provides for the regulation of grazing on the public lands to improve rangeland conditions and regulate their use. 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 600 grazing allotments in the RFO jurisdiction occur within the Adobe Town HMA. Between 2002 and 2005 Actual Use averaged 14% of permitted livestock levels in the Adobe Town HMA overall, with 26% actual use made between 2005 and 2009 and 34% actual use by livestock from 2010 through 2012. All nonuse was voluntarily made by permittees due to both drought conditions (2002, 2006 and 2012) and high horse numbers (until after the 2010 gather), and to provide time for vegetation recovery. Livestock operations with greater flexibility have made little to no use in this area, 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.

Ten of the 80 grazing allotments in the RSFO (Hiawatha Tridistrict and Canyon-Horseshoe administered out of the BLM Little Snake Field Office) occur within the Salt Wells Creek HMA. Corson Springs Allotment is located in RFO, but is administered out of the RSFO which is located within the Adobe Town HMA. A portion of the Rock Springs Allotment and Hiawatha Tridistrict is also located within the Adobe Town 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 1934) pre-date passage of the Wild Free-Roaming Horses and Burros Act. Between 2008 and 2012, actual livestock use averaged 49% of permitted use 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 graze the public lands, range improvements (e.g., stock ponds, water wells, 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. There is limited amount of fencing found within the Salt Wells Creek HMA. 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 grazing occurs mostly within the winter period while cattle grazing occurs throughout the year in some areas.

Environmental Consequences

Impacts of Alternative A The proposed gather would not directly impact livestock operations within or adjacent to the HMAs. Operations involved in removing wild horses may temporarily cause some disturbance to livestock present during the removal process. Livestock operators 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 reduced grazing use by wild horses, plant vigor and production would be

improved, and livestock production would also be improved. Forage production that has been utilized by higher populations of wild horses would now be available to use with livestock and greater actual use of permitted livestock AUMs would likely occur, which may also provide greater livestock management flexibility in other allotments outside these HMAs. A complete analysis of livestock grazing and grazing impacts in this area is found in the Divide Grazing EIS (BLM 1983, p. 59-71). Grazing in this area is also addressed in the Record of Decision and Approved Rawlins Resource Management Plan (BLM 2008b, p. 27-33), the Upper Colorado River Standards and Guidelines Assessment (BLM 2001), and the Green River RMP (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. There would be a faster rate of increase in wild horses resulting in more competition for the same resources between livestock and wild horses.

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 likely expand into nearby non-HMA areas in Wyoming and Colorado. Livestock operations with greater flexibility may 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 of livestock would be slow and indirect. Maintenance on all range improvements would increase due to increased numbers of wild horses and their potential damage to range improvements. 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 operators. These impacts would be cumulative over time.

3.8 Cultural Resources and Native American Concerns

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 Consequences

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 HMAs, 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 and for the short term future, taking no action to remove excess wild horses is not expected to adversely affect historic properties. However, a substantial increase in the number of wild horses over time may adversely affect historic properties by trampling.

3.9 Cumulative Impacts

NEPA regulations define cumulative impacts as impacts on the environment that result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions (40 CFR 1508.7).

Reasonably foreseeable future actions are those for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends. 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 6. 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: Wild Horses, Wildlife, Vegetation, Soils, Watershed, Recreation, Wilderness, Livestock Grazing, and Heritage Resources (Cultural Resources and Native American Concerns).

Wild Horses

Numerous gathers of wild horses have occurred throughout the ATSW Complex in the past. The most recent gathers of wild horses was in November of 2010; these gathers were necessary to bring the existing wild horse population in line with population goals. Fertility control has been implemented in the past. Genetic testing has been completed in the ATSW Complex; the results indicate that the existing wild horse population has variability levels high enough that no action to increase diversity is needed at this point. Depending upon the population size the herd may need some monitoring but there should be few or no problems for at least ten years.

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 wild 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 due to increased disturbance and removal of vegetation. 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 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 Alternative A or 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 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 HMAs over the long term. Monitoring of the project area would continue for wild horses as well as vegetation and water resources. Further evaluation is needed to determine if the ATSW Complex are meeting the standards for rangeland health.

Under the No Action Alternative, there would be no long-term cumulative benefits to wild horses. Future generations of wild horses would experience continued range deterioration. At the current rate of annual population growth, the projected wild horse population would exceed 2,000 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 Alternative A or 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 Alternative A or 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 ATSW Complex in the past and is expected to continue in the future. Water is a limiting resource in some areas within the ATSW Complex. As a result, existing water sources tend to be heavily utilized in some areas by livestock, wildlife, and wild horses which cause soil compaction around immediate vicinity of water and competition with other animals (animals chasing off other animals from water).

Implementation of Alternative A or 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 Alternative A or B would be expected to promote improvements to ecological condition. Excessive use by wild horses would not occur at water sources or outside the ATSW Complex, and utilization and competition between animals would be reduced which would be for only the first 2 to 3 years once the low AML is achieved. 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.

The ASTW is within a large area of long term drying and immediate drought conditions. The availability of water and feed is declining. Given the wide spread drought conditions, the option to move to more favorable conditions is beyond the natural ability of the horse population. Natural population numbers tend adapt to reduced resources by declining in number. With no large natural predators, the natural mechanisms for direct declines in horse populations tend to be starvation and disease. Starvation and dehydration induced infertility may also reduce long term population growth. These mechanisms can create environmental degradation and the prolonged suffering of individual animals. The proposed gather and fertility control creates the benefits of reduced population pressures on the environment while reducing the level of environmental impact and time and extent of individual suffering required to achieve reductions through natural mechanisms. Selection of the No Action Alternative would result in continued increases in natural population control mechanisms.

Implementation of the No Action Alternative would result in continued expansion in area and severity of degradation of vegetation by wild horses due to increasing population pressures. In the long term, this would cause more palatable native vegetation to be replaced by more opportunistic native and/or nonnative species. These species, such as cheatgrass (*Bromus tectorum*) and/or noxious weeds, such as black henbane (*Hyoscyamus niger*) tend to both expand in disturbed soil areas and be less palatable. 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 increased wild 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 Alternative A or 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 Alternative 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 BLM Manual 6340-Management of BLM Wilderness, wild horse populations must be managed at appropriate management levels to ensure a thriving natural ecological balance.

Alternative A or 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.

Cultural Resources and Native American Concerns

No cumulative impacts are anticipated for heritage resources. Trap site locations would avoid any identified archeological sites that may be eligible for nomination to the National Register of Historic Places or whose eligibility has not yet been determined.

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 increase or decrease). Data collected would include observations of animal health and condition, climate (precipitation), utilization, distribution, population census, range condition and trend, among other items.

Mitigation and monitoring are incorporated into the proposed action through standard operating procedures and policies, which have been developed over time. These SOPs (Appendices II and III), along with BLM IMs 2009-041 (BLM 2009a), 2010-135 (BLM 2010a), and 2013-059 (BLM 2013b), 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

None.

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 the ATSW Complex was mailed November 7, 2012.

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
Aimone, Bruce & Martin
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
Chilton Land and Livestock
Crosson Ranches LLC
Desert Cattle Co.
Dr. Jason Howard PC
Eaton, Dustin & James
Estate of Curtis Rochelle
Evans Wells & Livestock
Eversole, JohnJohn
Fill-More Beef LLC/P.H. Livestock
First Interstate Bank
G Bar B Veterinary Service

Hamel, Doug & Carolyne
Hill Land and Livestock
Hofeldt, John
Hog-Eye Ranch LLC
ISPM&B
Janet's Inc.
Utah State University Library
KBR
Mad Dog & the Pilgrim Booksellers
Maneotis Sheep Company
Marty and Ragsdale
Midland-Dunton Sheep Co.
Mike Sheehan Ranch LLC
Moon Living Trust
Mud Springs Livestock Company
N Bar K Ranch LLC
Olson Sisters Corporation
Pasin, Beverly & Anthony
Philp Sheep Company
Pinedale Roundup
Poor Farm LLC
Quarter Circle A Ranch LLC
Quarter Circle Block LLC
Quarter Circle Three Bar Ranch LLC
Quealy Properties, LLC
Raftopoulos Brothers Livestock
Ramsay, Norma

Rock Springs Grazing Association
Rock Springs Library
Rocket Miner
Salisbury Livestock Co.
Salisbury Livestock Co./Banjo Sheep Co.
Slagowski & Asay
Smith Rancho Inc.
Split Rock Holdings
Stewart Creek LLC
Stratton Sheep Co.
Sublette Examiner
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
Vercimak, Don & Peggy
W & M Thoman Ranches LLC
Weber Ranch Inc.
Western Wyoming Community College
Wilde, Jon
Wyoming Livestock Roundup
Wyoming Outdoor Council
Wyoming State Library

5.0 List of Preparers

This section contains the list of preparers and reviewers for this Environmental Assessment.

BLM Rock Springs Field Office

Jay D'Ewart, Wild Horse & Burro Specialist, Team Lead
Gavin Lovell, Assistant Field Manager – Resources
Mark Snyder, Wildlife Biologist
Cherette Mastny, Rangeland Management Specialist
Thor Stephenson, Rangeland Management Specialist
Lacey Anderson, Rangeland Management Specialist
K. Scott Stadler, Archeologist
Jo Foster, Recreation Planner
Dennis Doncaster, Hydrologist
John Henderson, Fishery Biologist
Jim Glennon, Botanist – T&E Plants
Kimberlee Foster, Resource Advisor
Angelina Pryich, Writer-Editor
Nancy Favour, NEPA Coordinator

BLM Rawlins Field Office

Benjamin Smith, Wild Horse & Burro Specialist, Team Lead
Tim Novotny, Assistant Field Manager – Resources
Mike Calton, Rangeland Management Specialist
Marcel Astle, Rangeland Management Specialist
Andy Warren, Supervisory Rangeland Management Specialist
Mary Read, Wildlife Biologist
Patrick Walker, Archeologist
David Hulum, Recreation Planner
Susan Foley, Soil Scientist
Jennifer Fleuret, Hydrologist

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Appendix I

Summary of Scoping and Public Comments

No.	Scoping Comment	BLM Response
1	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 Green River RMP (BLM 1997a) and in the Rawlins RMP (BLM 2008b). Please refer to Section 2.4 of the EA that discusses the alternative 'Remove or Reduce Livestock in the HMAs' for further information.
2	Re-evaluate and increase the AML for wild horses for these HMAs.	The AMLs were established through prior separate decision-making processes. Refer to Section 2.4 of the EA for a discussion of this alternative.
3	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	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, which is detailed in Section 2.1 of the EA.
5	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. No range improvements are proposed at this time. Please refer to Section 2 of the EA for a description of all alternatives, including those considered but not analyzed in detail.
6	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 AMLs for an ecological balance among wild horses and land and resource uses. Please refer to Section 2 of the EA for a description of all alternatives, including those considered but not analyzed in detail.
7	This roundup is highly objectionable because the wild horse population for the entire complex is within the established Allowable Management Level.	The AMLs for each HMA were established through prior separate decision-making processes. Salt Wells Creek HMA is currently above AML and the Adobe Town HMA is projected to be above low AML by summer of 2013. Please refer to Section 2.2 of the EA that addresses the Alternative 'Remove Excess Animals to Lower Limit of AML.'

No.	Scoping Comment	BLM Response
8	In the alternative, the BLM can end the tax subsidies that ranchers enjoy by charging market rate for public land grazing fees.	The analysis of adequate grazing fees is outside the scope of this wild horse gather analysis.
9	This ignores the fact that, in the 2010 roundup, the BLM utilized PZP fertility control on these herds. Either this is a blatant miscalculation, or the BLM did not properly utilize PZP in 2010, meaning that too few mares were vaccinated to make a difference in reproductive rates.	The PZP is most effective the first year after it is administered. It is expected that the current version may work two or three years. Most of the PZP administered in 2010 was in the Adobe Town HMA, which in part may help explain its current population level.
10	The scoping notice ignores the fact that the BLM is running out of long-term holding space for wild horses who have been removed from the range.	Decisions regarding the long-term stability of the BLM Wild Horse and Burro Program are outside of the scope of this analysis.
11	An alternative to manage the current wild horse population utilizing Catch Treat and Release (CTR) methods for the vaccination of all mares over 1 year of age with PZP-22 or native PZP fertility control.	The current wild horse population is above the AML therefore a removal is necessary to achieve low AML. Please refer to Section 1.2 of the EA 'Purpose and Need.'
12	An alternative to maintain all horses on the range through fertility control and adjustments to livestock grazing must not only be considered, but also designated as the Proposed Action in the Environmental Assessment.	Management decisions regarding livestock grazing and wild horses are determined through the Resource Management Planning process. Current direction for the RSFO is discussed in the Green River RMP (1997); for the RFO, the Rawlins RMP (2008). Please refer to Section 2 of the EA for a description of all alternatives, including those considered but not analyzed in detail.
13	An alternative that proposes negotiations with local ranchers to persuade them to tolerate a thriving wild horse population in the area in exchange for the privilege of grazing private livestock on our public lands.	Please refer to Sections 1.1 and 1.2 of the EA, which address a request from private landowners to remove excess wild horses. Additionally, please refer to Section 2 of the EA for a description of all alternatives, including those considered but not analyzed in detail.
14	Bait and/or water trapping should be considered as an alternative to helicopter roundup.	Please see Section 2.4 of the EA, which addresses this alternative.
15	Managing the wild horse population with natural sex ratios, since there is no evidence that sex ratio skewing to favor males impacts population growth rates. In addition, such skewing may have significant negative impacts on wild horse natural behaviors and social organization.	No sex ratio adjustments are being proposed in any of the alternatives.
16	Please seek alternatives that do not require a removal of wild horses. Utilize the one-year fertility drug, PZP, on mares one year and older. Manage wild horses on their legal ranges!	Use of fertility control vaccine PZP22 is being analyzed, which is a 22 month vaccine. See also comment responses for #9 and #11.

No.	Scoping Comment	BLM Response
17	BLM must analyze how new oil and gas development would affect the horses, both inside and outside the checkerboard lands.	Land use allocations regarding oil and gas development and HMAs are analyzed in the Resource Management Plans. For current decisions regarding lands that are open to oil and gas leasing and/or HMAs, please see the Green River RMP (BLM 1997a) and the Rawlins RMP (BLM 2008b). Additionally, specific oil and gas development proposals will be subject to NEPA analysis, including analysis of potential effects to wild horses.
18	The high cost of gathers and maintaining removed horses makes the fertility control vaccine and sex ratio adjustments more than essential to successful management of feral horses going forward.	Fertility control is a key component of the proposed action (Alternative A) and is analyzed under this EA. Please also see comment response #9 and #11.
19	While not specifically mentioned as a potential option, sterilization of a substantial portion of females would be highly desirable as a tool for maintaining numbers within the AML's.	Though proposed by the Wild Horse Advisory Board, this has not had a thorough analysis and will not be analyzed in this EA.
20	Private landowners are well within their rights to desire that feral horses be removed from these lands. Apparently the cost of managing these feral horse numbers has limited the ability of BLM to keep horse numbers within the amount that has been tolerated on private land over the last several decades. The potential consequences of not keeping feral horse numbers to reasonable levels as related to private land would adversely impact a number of ecosystem services currently provided the public by these private lands.	Please refer to Section 2.0 'Actions Common to Alternatives A and B' for information about removal of wild horses on private lands.
21	We comment that each of the alternatives in the EA should specifically evaluate if the geographic area to be used by proposed horse numbers in these alternatives would have adequate year-long forage, water, cover, and space on BLM lands as stated in the BLM's Wild Horse and Burro Handbook, H-4700-1. Each Alternative should also evaluate the potential impact of proposed horse numbers on current existing multiple use values such as wildlife, including sage grouse, and adjudicated livestock AUM's.	The request to reevaluate HMA boundaries is outside the scope of this analysis. HMA boundaries were established through the Land Use Planning process. Impacts to and from HMAs were analyzed during the Resource Management Plan EIS process for the Green River RMP, 1997 and Rawlins RMP, 2008. It is noted that the Green River RMP is currently undergoing a land use plan revision, which will consider a range of management options for the HMAs associated with that plan. However, until a new plan is approved, the management identified in the existing Green River RMP applies.
22	In principal, we support the use of effective fertility control measures and comment that BLM should use the most long term and long lasting methods available to the BLM. We support the use	Thank you for your comment. See also comment response #9.

No.	Scoping Comment	BLM Response
	of a spay program as recommended by the National Wild Horse and Burro Advisory Board to the Secretary of Interior over the use of PZP because a spay program is a much more effective population control measure. We do not support the return of any fertile mares to the range once they are captured in the roundup process.	
23	We appreciate the statement in paragraph three of your Nov. 7 letter that conveys an intent by the BLM to gather and remove horses on private lands or checkerboard lands. But we comment that this statement should apply to ALL BLM lands, not just those in the Rock Springs Field Office as stated in your letter. We request that this intent be evaluated in an alternative in the EA.	Please refer to comment response #20.
24	We comment that a cooperative monitoring program using science based protocols be developed and implemented in cooperation with the BLM and with the participation of rangeland and wildlife specialist from outside the BLM, and with participation by the grazing permittees. This monitoring program would study and evaluate the effects of "wild" horses on resource conditions and effects on multiple uses within these HMA's.	Thank you for your comment. The development of this type of program is outside the scope of this EA, which is proposing to gather horses to maintain the established AMLs within the existing HMAs.
25	We comment that all gathers and control measures should be designed to bring horse numbers down to at least the low AML number. But if the low AML number is determined by a joint/cooperative monitoring program to be too high to protect the health of rangeland resources and other multiple use values in the HMA's, then the AML must be adjusted down ASAP to the level which will accomplish these objectives.	Please refer to comment response #2.
26	The wild horse population in the Adobe Town HMA does not currently exceed the AML of 610-800 wild horses. Why can't you move the excess from Salt Wells Creek HMA horses, to the Adobe HMA?	The Adobe Town and Salt Wells Creek HMAs are managed as a complex due to wild horse movement across the boundaries. However, each HMA has a separate AML as established by the land use planning process in both the Rawlins (Adobe Town) and the Green River (Salt Wells Creek) RMPs. The 2003 Consent Decree requires a gather and removal to low AML once a census count determines the population is above the established AML within any HMA. Salt Wells Creek HMA is currently above

No.	Scoping Comment	BLM Response
		AML and the Adobe Town HMA is projected to be above low AML by summer of 2013. Please refer to Section 2.4 of the EA that addresses the Alternative 'Remove Excess Animals to Lower Limit of AML'.
27	Humane standards for capture operations. Recommendations by the Humane Society of the United States and the ASPCA (American Society for the Prevention of Cruelty to Animals) should be incorporated into these standards.	Animal health and welfare are monitored by the contractor, government employees and APHIS veterinarians. Please refer to Section 3.2 and Appendices II and III of the EA for further information.
28	Full transparency for capture operations, including making real time video available from trap sites so the public can monitor this government operation.	BLM strives to allow the public access to gather operations. Safety for the horses, contractors and government employees is of highest priority, so full access is often limited. Please refer to Section 2.0 'Actions Common to Alternatives A and B' for further information about the BLM policies for public access.
29	All genetic analyses of the horses and potential impact of the proposed removal. All genetic reports should be included in the EA's appendix.	The latest genetic report information is included in Section 3.2 of the EA. All genetic reports are available upon request.
30	All forage allocations, usage (Animal Unit Months/AUMs) and listing of livestock grazing allotments within the HMA, both current and annual numbers for each of the past three years to enable valid comparison and analysis.	Livestock Grazing Status is available as Appendix V of the EA.
31	A full accounting of all water sources on the range, including an explanation of water allocations for all uses in the HMA, as well as how fencing and engineering of wells and springs for livestock grazing has affected water availability for wild horses and other wildlife species.	Please refer to Section 3.4 for information pertaining to vegetation, soils, and watershed conditions. There are no new proposals analyzed in this EA for changes to available water sources in the HMAs.
32	All monitoring data for each area, which includes data that clearly delineates the separate impacts of livestock and wild horse use should be presented.	The EA includes the most recent wild horse census (2012) and projected populations with rationale. All range monitoring data is available at the RSFO and RFO. The impact of livestock versus wild horse use is outside of the scope of this analysis. The removal actions are within the scope of the established AMLs and the 2003 Consent Decree.
33	Information on predator-killing activities within and around the HMA for each of the past three years and analysis of how these activities impact the Thriving Natural Ecological Balance in the HMA.	Wild horses are not common prey of any known predators. Predator management is not accomplished by BLM and is outside the scope of this EA. There are very few documented cases where wild horses are predated by mountain lions. The scale of the necessary wild horse removals to be within the AMLs compared to the potential predation by mountain lions would be insignificant to consider as a reasonable alternative to comply

No.	Scoping Comment	BLM Response
		with the Wild Horse and Burro act and established policies. Also, please refer to Section 2.4 of the EA for information about the alternative 'Control of Wild Horse Numbers by Natural Means' which was considered but not analyzed in detail.
34	We should increase the number of cattle and horses in these HMA's and maintain the land through holistic management.	Changes in livestock grazing and adjustments to the AMLs within the HMAs are outside the scope of this EA. There are not enough pastures within the HMAs to rotate all stock to manage for a holistic management system to work. Wild horses would not be accommodating in pasture moves due to their free-roaming natures.
35	Stray horses should not be removed but returned to the HMA and the reason for their leaving identified and resolved.	Areas outside of the designated HMAs are not managed for wild horses in accordance with the Green River RMP (BLM 1997a) or the Rawlins RMP (BLM 2008b). Removal of horses outside the HMAs is in compliance with the WFRHBA, FLPMA, and 43 CFR 4700. Additionally, all HMAs will be managed to AML in accordance with the existing RMPs.
36	Rain and snow catchment devices, commonly referred to as "guzzlers," should be strategically installed throughout the HMAs.	Please see comment response #5.
37	Remove wild horses due to drought conditions as livestock are asked to stock the range for drought.	The established AMLs for each HMA account for normal, wet, and dry years on average. Please also see comment response #2.
38	It is infeasible to build and maintain fences around the private lands; therefore BLM should remove all wild horses from the checkerboard.	Thank you for your comment. Please see comment response #20.
39	The combined impacts of excess wild horses and drought will continue to adversely affect sage grouse habitat.	Thank you for your comment. Impacts to wildlife, including the Greater Sage-Grouse, can be found in Sections 3.3 and 4.3 of the EA.
40	The BLM must implement surgical sterilization, gelding and spaying as the primary fertility control for wild horses.	Thank you for your comment. See also comment response #9.
41	The Adobe Town and Salt Wells herds are within AMLs. Do not count foals toward AML.	AML applies to the number of adult wild horses or burros to be managed within the population and does not include the current year's foals. However, in accordance with BLM H 4700-1 Wild Horse and Burros Management Handbook, all wild horses one year of age and older are considered adults (a foal is considered one year of age on January 1 of the year following its birth). Additionally, this gather will be conducted in accordance with the Removal Criteria (including age criteria for Age Class Four Years and Younger) identified in BLM Manual 4720.33 (BLM 2010d).

No.	Scoping Comment	BLM Response
42	We recommend formulation of an emergency action alternative for inclusion in the Environmental Assessment that would analyze a reduction of wild horse numbers by at least 25-30% below the lower range of the BLM's AML for each HMA. We recommend this alternative based on the current year-long drought and concurrent adverse effects on the forage and water availability for wildlife.	Please see comment responses #2 and #37.
43	The designation of the Greater Sage Grouse core habitat within the HMAs further supports the need to consider reducing wild horse numbers below the existing AML.	Decisions regarding the Greater Sage-Grouse core habitat management are being analyzed as part of the Greater Sage Grouse Nine Plan Resource Management Planning Amendment, which includes both the Green River and Rawlins RMPs. Until a Record of Decision for that Amendment is completed, all actions must be in compliance with the current RMPs. Additionally, it is noted that the Green River RMP is currently undergoing a land use plan revision, which will consider a range of management options for wild horses. However, until a new plan is approved, the management identified in the existing Green River RMP applies.

Table 2: Public Review Comments

No.	Public Review Comment	BLM Response
<p>Note: Comments received relating to issues already addressed in ‘Appendix 1: Table 1 Scoping Comments’ are not duplicated in this summary.</p>		
A	<p>The proposed action would unlawfully close the majority of public lands in the complex to wild horse use, and turn these public lands over to private ranchers</p>	<p>The Adobe Town and Salt Wells Creek HMA boundaries and AMLs remain the same in all alternatives. Wild horses will be removed from private lands and the checkerboard and be maintained at AML within the federal land block in accordance with the existing 1997 Green River RMP and the 2008 Rawlins RMP.</p> <p>Changes to HMA boundaries and AML are land use planning allocations and are outside the scope of this analysis. In accordance with the April 3, 2013 Consent Decree, a Notice of Intent to extend the public scoping period for the Rock Springs Resource Management Plan (RMP) and to amend the 2008 Approved Rawlins RMP to address wild horse and burro management in the Rock Springs and Rawlins field offices has been developed to be published in the Federal Register. Interim management of wild horses will continue to be in conformance with the existing RMPs until the amendments and revision is complete, in accordance with 43 CFR 1610.5. Periodic gathers within the checkerboard will occur as required by the 2013 Consent Decree.</p>
B	<p>Based on a 2012 census and unsubstantiated estimates of herd growth of 20% a year that lack any scientific substantiation. Using the BLM’s faulty calculations, the Adobe Town HMA is just 14 horses over the “Allowable” Management Level (AML), meaning that the Proposed Action could result in removing horses to a level below AML. This is illegal under the Wild Free Roaming Horses and Burros Act</p>	<p>Removal of wild horses from the Adobe Town HMA will be limited to those wild horses outside the HMA and on the checkerboard pattern of the HMA.</p> <p>The low AMLs will be maintained for both the Adobe Town and Salt Wells Creek HMAs.</p> <p>Please refer to Sections 1.2 and 2.0 of the EA.</p>

Table 2: Public Review Comments

No.	Public Review Comment	BLM Response
C	Removal of horses from private lands in these HMAs violates the Wild Horse Act because, due to the alternating public/private land parcel pattern, the BLM cannot distinguish between horses on private land and federally-protected horses who reside primarily on public land.	<p>The private lands contained in the ATSW complex are managed as part of the respective HMA's. As such populations that are found on private or public are counted as part of the total population of that HMA and the complex.</p> <p>The BLM has received a written request to remove wild horses from private lands including those within the ATSW Complex and needs to remove these wild horses in accordance with 43 CFR 4720.2-1 and the 2013 consent decree. Please refer to Sections 1.2 and 2.0 of the EA.</p>
D	Removal of horses from all checkerboard lands will "zero out" a large portion of the Salt Wells Creek HMA. The HMA boundaries were established under the Wild Horse Act and BLM Land Use Plans; they cannot be changed by an EA on a roundup plan.	Please refer to comment response to 'A'.
E	Proposed Action is illegal attempt to implement a backroom deal between the government and the Rock Springs Grazing Association (RSGA), which filed suit against the government at the suggestion of the Interior Department. The public has been left out of this backroom deal, which the government agreed to settle the RSGA lawsuit. The Proposed Action is an attempt to unlawfully implement this settlement and will result in numerous violations of numerous wild horse protection and land use planning laws.	<p>In April 2013, the U.S. District Court for Wyoming entered a consent decree between BLM and the RSGA in case 11-CV-263-NDF (2013 Consent Decree). That consent decree resolved litigation involving BLM's responsibilities to remove wild horses from private lands under Section 4 of the WFRHBA, 16 USC 1334.</p> <p>The ATSW complex horse gather is in compliance with the 2013 Consent Decree.</p>
F	EA failed to consider a range of alternatives to the Proposed Action, including reducing livestock grazing to accommodate current wild horse populations and avoid removals, as well as land swaps that could result in contiguous public land habitat for wild horse and environmental protection and private lands for grazing sheep and cattle.	Please refer to Appendix I, Comment Response #1. Additionally, land acquisitions and disposals are land use allocation decisions and are outside the scope of this analysis. Please refer to Section 1.2 of the EA.

Table 2: Public Review Comments

No.	Public Review Comment	BLM Response
G	EA failed to examine the impacts of the Proposed Action on recreational users of this land. The action will essentially “zero out” the majority of the Salt Wells Creek HMA, including the area nearest to Rock Springs, which is most accessible to the public and frequently enjoyed by wild horse watchers and photographers. The proposed Action will essentially close this area of public lands to these important users.	Recreation resources are adequately addressed in Section 3.5 of the EA.
H	The EA failed to provide any monitoring data to justify the removal of horses, to account for changing range conditions or to delineate range impacts caused by wild horses vs. range impacts caused by livestock.	<p>Key monitoring areas for measuring forage utilization were established in the spring of 2010 in the upland areas near the Brady Plant in the Rock Springs Grazing Allotment within the Salt Wells Creek HMA. In 2012, the Rock Springs Field Office monitoring data indicate for the Brady Plant Key Area showed heavy utilization (72.7%) by wild horses. Heavy utilization (61-80% use) on the Key Species data form defines heavy use as “More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain.”</p> <p>Please refer to Section 3.2 and 3.4 and Appendix V of the EA.</p>
I	The Scoping Notice had estimated the combined population at 1,206 wild horses, including a 20-percent add-on for foals projected to be born in 2013. The EA notes an additional 20-percent increase 241 -- leading 1,447 wild horses. Why was there an additional foal crop added?	The census data is from May 2012, which did not include the 2012 foal crop. Therefore, a 20% adjustment was made to account for 2012. Since the gather is not planned until October of 2013, an additional 20% adjustment was added to account for the 2013 foal crop. Please refer to Table 2. Projected Population After 2013 Foaling Season of the EA.
J	Whatever AMLs are established, they must result in the wild horses being the principal users of the HMAs. The ATSW HMAs do not necessarily have to be managed exclusively for wild horses ... but they could be. The "principal use" concept should be a starting point for setting the AMLs.	The BLM has a multiple-use management mandate under the Federal Land Policy and Management Act 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. Please refer to Section 2 of the EA for a description of all alternatives, including those considered but not analyzed in detail. Additionally, please refer to Comment Response ‘A’.

Table 2: Public Review Comments

No.	Public Review Comment	BLM Response
K	Per page 38 of the EA, there are more livestock AUMs in non-use than in active use: 66 percent -- unused livestock AUMs within the Adobe Town HMA and 51 percent -- unused livestock AUMs within the Salt Wells Creek HMA. These percentages suggest that there could easily be 100,000 or more unused AUMs. Those vacant AUMs could accommodate over 8,000 wild horses.	There are various reasons for livestock operators taking non-use including annual fluxuations in operations, drought, vegetation management (including rest and rehabilitation of forage), water availability, sustainable ecological health, etc. Even though AUMs may be unused by livestock, the allotted AUMs must remain available for livestock use as adjudicated in accordance with 43 CFR Part 4100 and the Taylor Grazing Act. Please also refer to Comment Response #3.
L	It is nearly impossible to accurately count mustangs by means of a helicopter flyover. Therefore, it is likely that horses are double-counted, and not per the "simultaneous double-count".	The BLM is in compliance with IM-2010-057 'Wild Horse & Burro Population Inventory and Estimation' by designing aerial surveys in accordance with the best management practices listed in the IM.
M	Helicopters Emit Exhaust Gases that Contribute to Ozone and PM-10 and Green-House Gases	Air quality impacts are addressed in Table 4 'Resources Considered' of the EA. WDEQ monitoring data identifies that there are no Air Quality concerns within the project area.
N	Helicopter use for census and gather activities puts personnel at risk.	All census and gather operations, including helicopter use, is conducted in accordance with the BLM Wild Horse Aviation Management Handbook (January 2009). Please also see Appendix II of the EA.
O	By signing the Consent Decree with RSGA, BLM has effectively removed these two-thirds of the acreage from the area available to support the currently established AML and may lead to severe ecological damage.	Please refer to Comment Response 'A'.
P	The use of PZP alone is not enough to adequately address the reproduction rate of wild horses. We encourage the BLM to analyze the full suite of potential fertility control measures, including SpayVac, spaying of mares, gelding of stallions and the creation of non-reproducing herds.	Thank you for your comment. Although not proposed in this EA, the BLM retains its discretion to apply alternative fertility control methods in future management actions.

Table 2: Public Review Comments

No.	Public Review Comment	BLM Response
Q	<p>Evidence-based research conducted by the National Academy of Science "Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward" recently demonstrated that the current BLM management plan is inconsistent with the mission of the Wild Horse Program.</p> <p>The EA should include alternatives that are responsive to the NRC recommendations.</p>	<p>Decisions regarding the mission or long-term stability and direction of the BLM Wild Horse and Burro Program are outside of the scope of this gather analysis. The Proposed Action and action alternatives are in compliance with the current RMPs and the 2013 Consent Decree.</p> <p>The BLM RSFO and RFO have reviewed the National Academy of Science (NAS) report and have determined that its recommendations do not require modification of the proposed action or alteration of the range of alternatives or impact analyses of this EA. In accordance with the Purpose and Need (Section 1.2 of the EA), the BLM needs to remove wild horses from private lands as required by section 4 of the WFRHBA and the 2013 Consent Decree.</p>
R	<p>The proposed action would provide double the concentration of wild horses in sage grouse core habitat areas.</p>	<p>Sage grouse impacts are adequately addressed in Section 3.3 of the EA. Additionally, please see comment response 'A'.</p>
S	<p>Grazing permittees are undergoing permit renewals and the rangeland health assessments show that much of the area is failing to meet PFC. The wild horses impact the ability of grazing permittees to maintain range health, forcing permittees to take nonuse of their grazing rights to conserve range resources.</p>	<p>Impacts to livestock grazing are adequately addressed in Section 3.7 of the EA.</p>
T	<p>Prior uncoordinated census counts by the Rawlins and Rock Springs Field Offices without participation from Colorado BLM offices may have contributed to the significant undercount of the combined wild horse populations and impeded effective gather operations. We understand that Colorado BLM has no plans to gather wild horses.</p>	<p>Census counts were conducted in compliance with IM-2010-057 'Wild Horse & Burro Population Inventory and Estimation' by designing aerial surveys in accordance with the best management practices listed in the IM.</p> <p>Gather plans for the BLM-Colorado Field Offices are outside the scope of this analysis.</p>

Table 2: Public Review Comments

No.	Public Review Comment	BLM Response
U	Due to the potential, but unquantified, impacts to the range resources caused by wild horses in Wyoming, there is a need for a comprehensive monitoring program that specifically monitors the impact of wild horses on rangeland resources, including the health of the land, sage grouse habitat, and impacts on other multiple uses.	Please refer to Sections 3.2, 3.4, 3.7, 3.9 and Appendix V of the EA for information about monitoring efforts and results.
V	The EA omits any information about fencing within the HMAs, including the impacts of existing fencing on wild horses.	This EA is analyzing the impacts related to the gather activities rather than individual range improvement fencing projects. There are no new proposals analyzed in this EA for changes to existing fences in the HMA.
W	No acknowledgment or method of procedures to be followed is found in the EA for the avoidance to undo stress for wild horses.	Impacts to wild horses are adequately addressed in Section 3.2 and Appendix II.
X	None of the alternatives reflect a true attempt at on-the-range adaptive management techniques.	Both the Green River RMP and the Rawlins RMP identify management actions for wild horses. The Proposed Action and alternatives are in conformance to the RMPs. Additionally, the Proposed Action and the action alternatives are in compliance with the 2013 Consent Decree. See Section 2.0 of the EA for a full description of the Proposed Action and Alternatives.
Y	During the gather, is BLM going to turn on a well source while turning off others for the purpose of unnaturally congregating the animals onto the private land for the purpose of removal?	Please refer to Section 2.2 for a full description of the Alternatives. This type of action is not proposed. Additionally, no range improvements are proposed at this time.
Z	If horses cross over into the checkerboard in Salt Wells they could be removed, thereby decreasing the genetic variation of Adobe Town and puts that herd at risk.	The AML will be maintained in both the Adobe Town and Salt Wells HMAs in all alternatives. Please also refer to Comment Response 'A'.

Table 2: Public Review Comments

No.	Public Review Comment	BLM Response
AA	With regard to older horses, removing dominant members would further destabilize herd dynamics. We recommend that you allow elderly horses to die a natural death on the range.	The management of social structures of wild horse herds within the HMAs is not a management strategy identified in either the Green River RMP or the Rawlins RMP and is outside the scope of this Proposed Action/Alternatives analysis. Impacts to wild horses are adequately addressed in Section 3.2. Additionally, this gather will be conducted in accordance with the Removal Criteria identified in BLM Manual 4720.33.
AB	We recommend the following range improvements be considered: 1) reduce interior fencing to allow free-roaming of horses 2) Prioritize construction of new water developments and maintaining existing ones 3) Re-seed rangelands where damage has occurred and 4) treat noxious and invasive weeds.	Thank you for your comment. Range improvements are a valuable tool for the BLM management of the public lands. However, the Proposed Action and alternatives were designed specifically to address the need to remove excess wild horses to maintain the establish AMLs and to respond to a request from landowners for removal of wild horses from private lands. Please refer to Section 1.2 for a description of the Purpose and Need for this action.
AC	The EA and the 2003 Consent Decree completely fail to determine one single wild horse or burro as ‘excess’, directly violating the WHFRBA.	Please refer to Sections 1.1, 1.2, 2.0 and Section 3 ‘Description of the Affected Environment and Environmental Consequences’ of the EA which discuss why the wild horses to be removed are “excess.” As discussed in the EA, current population exceeds the AMLs and BLM has determined that overpopulation of wild horses exists and it is necessary to remove animals in order to achieve and maintain a thriving natural ecological balance between wild horse populations, wildlife, livestock, vegetation, and water resources and to prevent undue or unnecessary degradation of the public lands by protecting the range from deterioration due to this overpopulation of wild horses within and outside the HMAs. In addition, the Proposed Action and action alternatives are, in part, necessary to comply with a landowner request to remove horses from private lands, in accordance with the 2013 Consent Decree. The horses to be removed are therefore “excess” as provided by 16 USC 1332(f).

Table 2: Public Review Comments		
No.	Public Review Comment	BLM Response
AD	The EA is silent on human-imposed factors affecting wild horses, including population growth rates in the ATSW Complex.	Please refer to Section 3 ‘Description of the Affected Environment and Environmental Consequences’ of the EA for a discussion about identified resource impacts.

Appendix II

Standard Operating Procedures for Wild Horse Gatherers

Gathers are conducted by utilizing contractors from the Wild Horse Gathers-Western States Contract or BLM personnel. The following standard operating procedures (SOPs) for gathering and handling wild horses apply whether a contractor or BLM personnel conduct a gather. For helicopter gathers conducted by BLM personnel, gather operations would be conducted in conformance with the *Wild Horse Aviation Management Handbook* (January 2009).

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

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

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

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

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

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

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

1. All gather sites 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 gather locations as determined by the COR/PI. All gather sites and holding facilities not located on public land must have prior written approval of the landowner.
2. The rate of movement and distance the animals travel shall not exceed limitations set by the COR who would consider terrain, physical barriers, access limitations, weather, extreme temperature (high and low), condition of the animals, urgency of the operation (animals facing drought, starvation, fire rehabilitation, etc.) and other factors. In consultation with the contractor the distance the animals travel would account for the different factors listed above and concerns with each HMA.
3. All gather sites, 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. Gather sites 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 high for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All gather sites 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 with plywood or 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 would 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 gather site or holding facility, the Contractor shall be required to wet down the ground with water.
6. Alternate pens, within the holding facility shall be furnished by the Contractor to separate mares or jennies with small foals, sick and injured animals, estrays, or other animals the COR determines need to be housed in a separate pen from the other animals. Animals shall be sorted as to age, number, size, temperament, sex, and condition when in the holding facility so as to minimize, to the extent possible, injury due to fighting and trampling. Under normal conditions, the government would 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 would be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering requires that animals be released back into the gather area(s). In areas requiring one or more satellite gather site, 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 would be at the discretion of the COR.

7. The Contractor shall provide animals held in the gather sites 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 gather site or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. The contractor would supply certified weed free hay if required by State, County, and Federal regulation.
8. An animal that is held at a temporary holding facility through the night is defined as a horse/burro feed day. An animal that is held for only a portion of a day and is shipped or released does not constitute a feed day.
9. It is the responsibility of the Contractor to provide security to prevent loss, injury or death of gathered animals until delivery to final destination.
10. The Contractor shall restrain sick or injured animals if treatment is necessary. The COR/PI would determine if animals must be euthanized and provide for the destruction of such animals. The Contractor may be required to humanely euthanize animals in the field and to dispose of the carcasses as directed by the COR/PI.
11. Animals shall be transported to their final destination from temporary holding facilities as quickly as possible after gather unless prior approval is granted by the COR for unusual circumstances. Animals to be released back into the HMA following gather operations may be held up to 21 days or as directed by the COR. Animals shall not be held in gather sites and/or temporary holding facilities on days when there is no work being conducted except as specified by the COR. The Contractor shall schedule shipments of animals to arrive at final destination between 7:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday and Federal holidays; unless prior approval has been obtained by the COR. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours in any 24 hour period. Animals that are to be released back into the gather area may need to be transported back to the original gather site. This determination would be at the discretion of the COR or Field Office Wild Horse & Burro Specialist.

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

1. Gather attempts may be accomplished by utilizing bait (feed, water, mineral licks) to lure animals into a temporary gather site. If this gather method is selected, the following applies:
 - a. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc., that may be injurious to animals.
 - b. All trigger and/or trip gate devices must be approved by the COR/PI prior to gather of animals.
 - c. Gather sites shall be checked a minimum of once every 10 hours.

2. Gather attempts may be accomplished by utilizing a helicopter to drive animals into a temporary gather site. If the contractor selects this method the following applies:
 - a. A minimum of two saddle-horses shall be immediately available at the gather site to accomplish roping if necessary. Roping shall be done as determined by the COR/PI. Under no circumstances shall animals be tied down for more than one-half hour.
 - b. The contractor shall assure that foals shall not be left behind, and orphaned.
3. Gather attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If the contractor, with the approval of the COR/PI, selects this method the following applies:
 - a. Under no circumstances shall animals be tied down for more than one hour.
 - b. The contractor shall assure that foals shall not be left behind, or orphaned.
 - c. The rate of movement and distance the animals travel shall not exceed limitations set by the COR/PI who would consider terrain, physical barriers, weather, condition of the animals and other factors.

C. Use of Motorized Equipment

1. All motorized equipment employed in the transportation of gathered animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The Contractor shall provide the COR/PI, if requested, with a current safety inspection (less than one year old) for all motorized equipment and tractor-trailers used to transport animals to final destination.
2. All motorized equipment, tractor-trailers, and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that gathered animals are transported without undue risk or injury.
3. Only tractor-trailers or stock trailers with a covered top shall be allowed for transporting animals from gather site(s) to temporary holding facilities, and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of 6 feet 6 inches from the floor. Single deck tractor-trailers 40 feet or longer shall have at least two (2) partition gates providing at least three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing at least two (2) compartments within the trailer to separate the animals. Compartments in all tractor-trailers shall be of equal size plus or minus 10 percent. Each partition shall be a minimum of 6 feet high and shall have a minimum 5-foot-wide swinging gate. The use of double deck tractor-trailers is unacceptable and shall not be allowed.
4. All tractor-trailers used to transport animals to final destination(s) shall be equipped with at least one (1) door at the rear end of the trailer which is capable of sliding either horizontally or vertically. The rear door(s) of tractor-trailers and stock trailers must be capable of opening the full width of the trailer. Panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of all trailers must be strong enough so that the animals cannot push their hooves through the side. Final approval of tractor-trailers and stock trailers used to transport animals shall be held by the COR/PI.
5. Floors of tractor-trailers, stock trailers and loading chutes shall be covered and maintained with

wood shavings to prevent the animals from slipping as much as possible during transport.

6. Animals to be loaded and transported in any trailer shall be as directed by the COR/PI and may include limitations on numbers according to age, size, sex, temperament and animal condition. The following minimum square feet per animal shall be allowed in all trailers:
 - 11 square feet per adult horse (1.4 linear foot in an 8 foot wide trailer);
 - 8 square feet per adult burro (1.0 linear foot in an 8 foot wide trailer);
 - 6 square feet per horse foal (0.75 linear feet in an 8-foot-wide trailer);
 - 4 square feet per burro foal (0.5 linear feet in an 8-foot-wide trailer).
7. The COR/PI shall consider the condition and size of the animals, weather conditions, distance to be transported, or other factors when planning for the movement of gathered animals. The COR/PI shall provide for any brand and/or inspection services required for the gathered animals.
8. If the COR/PI determines that dust conditions are such that the animals could be endangered during transportation, the Contractor would be instructed to adjust speed.

D. Safety and Communications

1. The Contractor shall have the means to communicate with the COR/PI and all contractor personnel engaged in the gather of wild horses utilizing a VHF/FM Transceiver or VHF/FM portable Two-Way radio. If communications are ineffective the government would take steps necessary to protect the welfare of the animals.
2. 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 would 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.
3. The Contractor shall obtain the necessary FCC licenses for the radio system.
4. All accidents occurring during the performance of any task order shall be immediately reported to the COR/PI.
5. Should the contractor choose to utilize a helicopter the following would 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.

E. Site Clearances

1. No Personnel working at gather sites may excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage or otherwise alter or deface any archaeological resource located on public lands or Indian lands.
2. Prior to setting up a gather site or temporary holding facility, the BLM would 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 gather site or temporary holding facility may be set up. Said clearance shall be arranged for by the COR, PI, or other BLM employees.
3. Gather sites and temporary holding facilities would not be constructed on wetlands or riparian zones.

F. Animal Characteristics and Behavior

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

G. Public Participation

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

H. Responsibility and Lines of Communication

- Rock Springs Field Office – Contracting Officer's Representative/Project Inspector: Jay D'Ewart
- Alternate – Contracting Officer's Representative/Project Inspector:
Benjamin Smith
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, District Office, State Office, National Program Office, and BLM Holding Facility offices. All employees involved in the gathering operations would keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries would be handled through the Assistant Field Manager for Renewable Resources and District Public Affairs Officer. These individuals would be the primary contact and would coordinate with the COR/PI on any inquiries.

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

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

Should the Contractor show negligence and/or not perform according to contract stipulations, he would 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 the 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 Complex

To complete the population modeling for the ATSW 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 2013 herd was developed from age structure data collected during the 2005 ATSW 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 A:

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	0%	0%
15-19	0%	0%
20+	0%	0%

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

**Contraception Criteria
(Alternative A)**

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: 2013
- Initial gather year: 2013
- 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 A Proposed Action (Remove to Low Limit of Management Range & Fertility Control)	Alternative B (Remove to Lower Limit of Management Range)	Alternative C 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	365 Salt Wells Creek HMA 800 Adobe Town HMA	365 Salt Wells Creek HMA 800 Adobe Town HMA	N/A
Target Population Size Following Gathers	251 Salt Wells Creek HMA 610 Adobe Town HMA	251 Salt Wells Creek HMA 610 Adobe Town HMA	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.

Data from the January 2000 Clan Alpine study, in Nevada, determined the fertility rates for the 2-year PZP vaccine 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 623 wild horses in the Adobe Town and 823 wild horses in the Salt Wells Creek HMA was based on a May 2012 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 2013. 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 2023. 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 2013 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 810 wild horses in the Adobe Town HMA and 365 wild horses in the Salt Wells Creek 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 2013
8. initial population size: 623 wild horses in the Adobe Town HMA and 823 wild horses in the Salt Wells Creek HMA
9. population size after gather would be 610 wild horses in the Adobe Town HMA and 251 wild horses in the Salt Wells Creek HMA
10. implement selective removal criteria
11. fertility control Yes for Proposed Action (Alternative A) and No for Alternative B

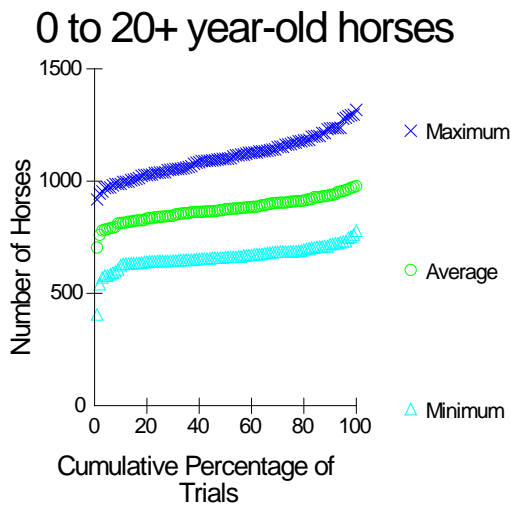
Results:

Alternative A: Proposed Action – Removal of Excess Animals to the Lower Limit of AML range (610) with Fertility Control in Adobe Town HMA.

The parameters for the population modeling were:

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

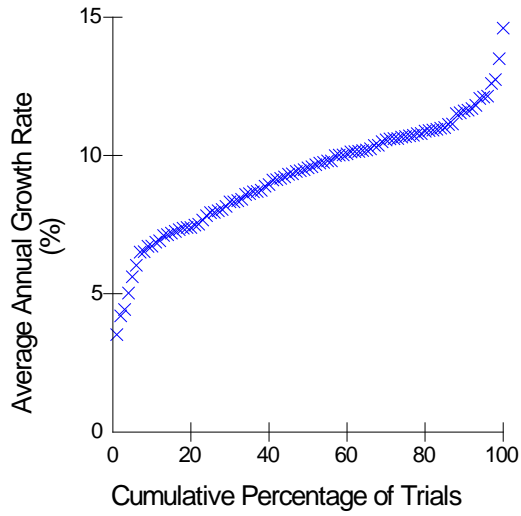
Population Size and Modeling Graph and Table (Gather and Fertility Control)



POPULATION SIZES IN 11 YEARS*			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	406	704	918
10 th Percentile	628	814	992
25 th Percentile	644	841	1,038
Median Trial	662	875	1,100
75 th Percentile	687	908	1,168
90 th Percentile	720	938	1,235
Highest Trial	779	977	1,317

* 0 to 20+ year-old horses

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



AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	3.5%
10 th Percentile	6.8%
25 th Percentile	7.9%
Median Trial	9.6%
75 th Percentile	10.7%
90 th Percentile	11.6%
Highest Trial	14.6%

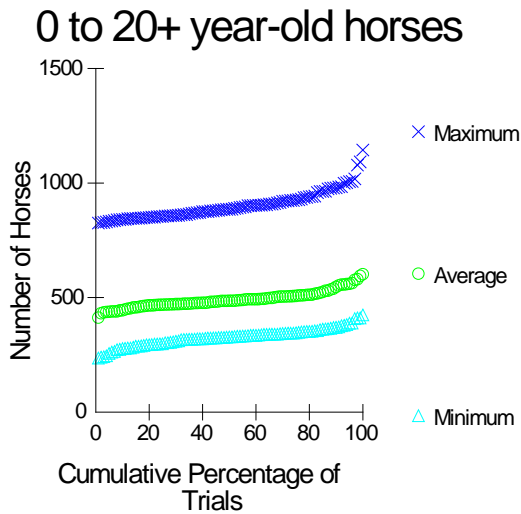
Results:

Alternative A: Proposed Action – Removal of Excess Animals to the Lower Limit of AML range (251) with Fertility Control in Salt Wells Creek HMA.

The parameters for the population modeling were:

- 1-11. The same as parameters listed above.
- 13. Yes, treat all mares released with fertility control.

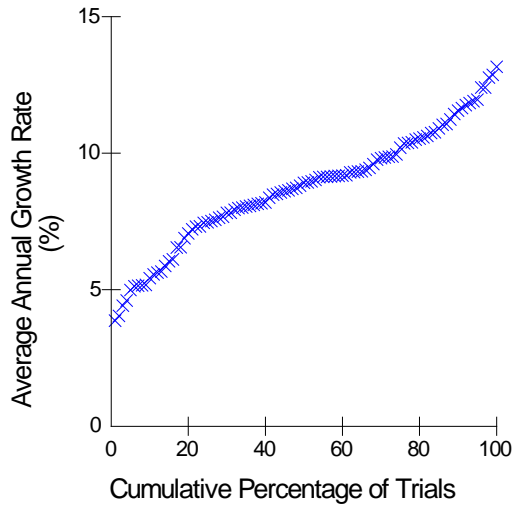
Population Size and Modeling Graph and Table (Gather and Fertility Control)



POPULATION SIZES IN 11 YEARS*			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	236	412	825
10 th Percentile	278	446	841
25 th Percentile	300	469	855
Median Trial	328	486	886
75 th Percentile	347	508	926
90 th Percentile	371	550	981
Highest Trial	424	602	1,144

* 0 to 20+ year-old horses

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



AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	3.9%
10 th Percentile	5.5%
25 th Percentile	7.5%
Median Trial	8.9%
75 th Percentile	10.3%
90 th Percentile	11.6%
Highest Trial	13.2%

Results:

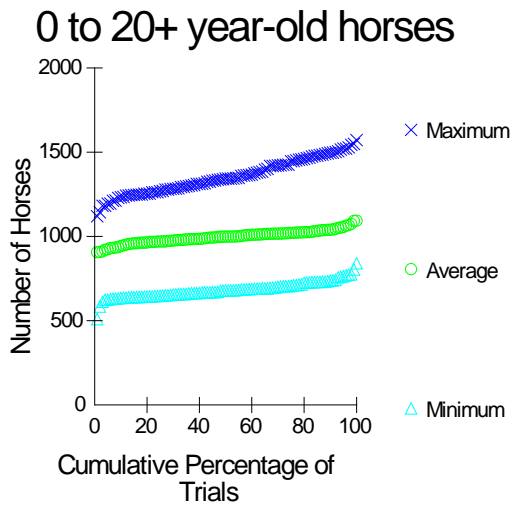
Alternative B – Removal of Excess Animals to the Lower Limit of AML range (610) with No Fertility Control in the Adobe Town HMA.

The parameters for the population modeling were:

1-10. same as parameters listed above.

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

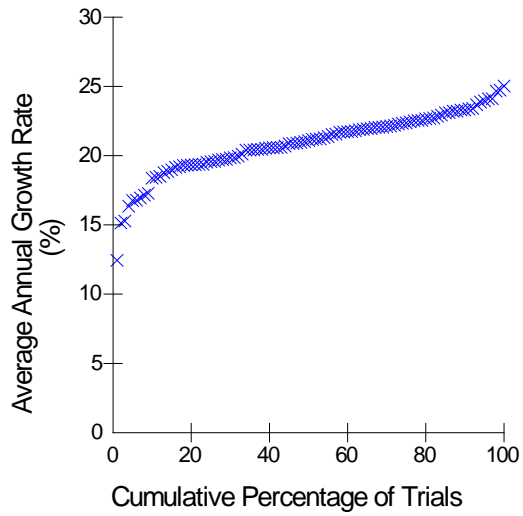
Population Size and Modeling Graph and Table (Gather Only)



POPULATION SIZES IN 11 YEARS*			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	509	906	1,119
10 th Percentile	634	944	1,233
25 th Percentile	648	969	1,269
Median Trial	679	999	1,343
75 th Percentile	708	1,020	1,446
90 th Percentile	738	1,040	1,496
Highest Trial	840	1,093	1,572

* 0 to 20+ year-old horses

Growth Rate Modeling Graph and Table (Gather Only)



AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	12.4%
10 th Percentile	18.4%
25 th Percentile	19.6%
Median Trial	21.1%
75 th Percentile	22.4%
90 th Percentile	23.3%
Highest Trial	25.0%

Results:

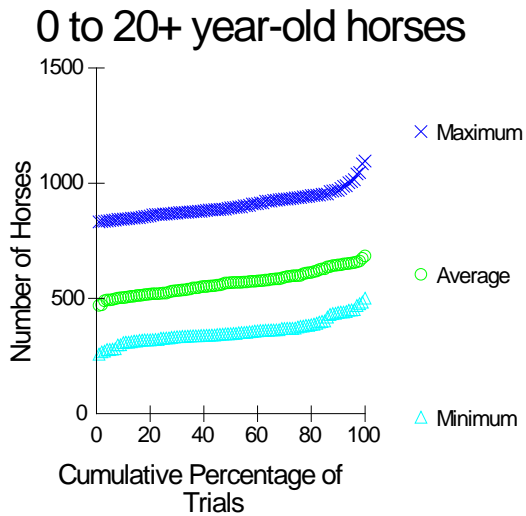
Alternative B – Removal of Excess Animals to the Lower Limit of AML range (251) with No Fertility Control in the Salt Wells Creek HMA.

The parameters for the population modeling were:

1-10. same as parameters listed above.

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

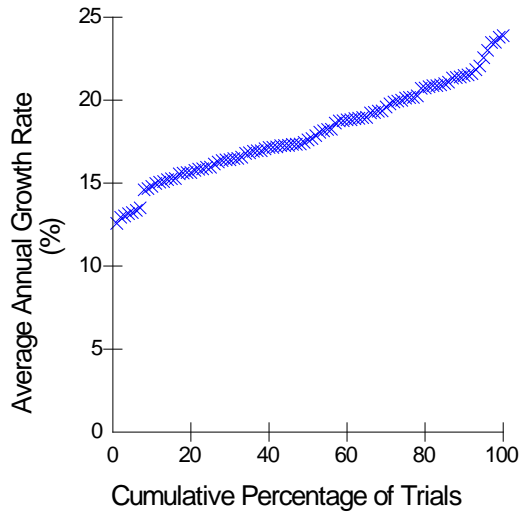
Population Size and Modeling Graph and Table (Gather Only)



POPULATION SIZES IN 11 YEARS*			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	258	469	832
10 th Percentile	309	504	844
25 th Percentile	328	523	866
Median Trial	348	568	894
75 th Percentile	378	599	938
90 th Percentile	440	645	973
Highest Trial	501	684	1,096

* 0 to 20+ year-old horses

Growth Rate Modeling Graph and Table (Gather Only)



AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	12.6%
10 th Percentile	14.9%
25 th Percentile	16.1%
Median Trial	17.7%
75 th Percentile	20.1%
90 th Percentile	21.5%
Highest Trial	23.9%

Results:

Alternative C – No Action Alternative – No Gather or Removal in the Adobe Town HMA.

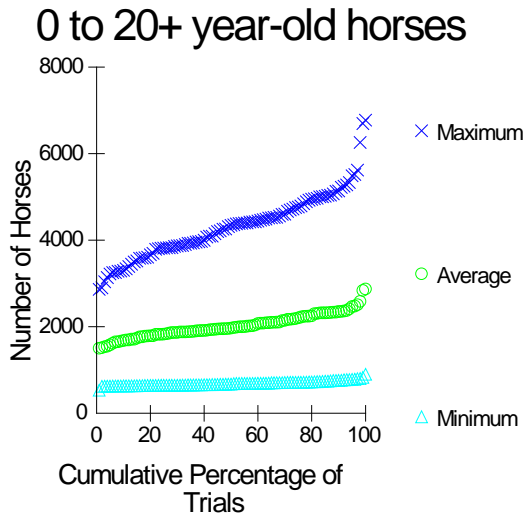
The parameters for the population modeling were:

Do not gather in 2013

Foals are not included in AML

Percent to gather 0

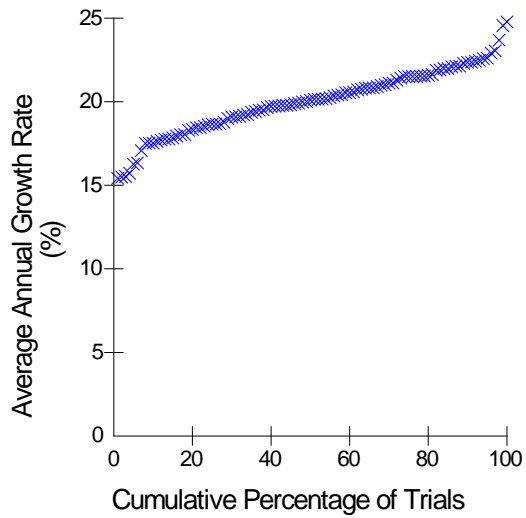
Population Size Modeling Graph and Table (No Action)



POPULATION SIZES IN 11 YEARS*			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	532	1,500	2,862
10 th Percentile	632	1,685	3,320
25 th Percentile	646	1,832	3,819
Median Trial	678	1,972	4,348
75 th Percentile	714	2,212	4,778
90 th Percentile	760	2,350	5,178
Highest Trial	900	2,872	6,773

* 0 to 20+ year-old horses

Growth Rate Modeling Graph and Table (No Action)



AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	15.4%
10 th Percentile	17.6%
25 th Percentile	18.7%
Median Trial	20.1%
75 th Percentile	21.5%
90 th Percentile	22.4%
Highest Trial	24.8%

Results:

Alternative C – No Action Alternative – No Gather or Removal in the Salt Wells Creek HMA.

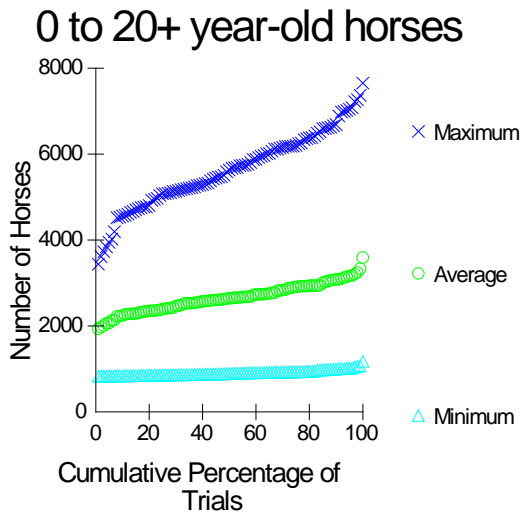
The parameters for the population modeling were:

Do not gather in 2013

Foals are not included in AML

Percent to gather 0

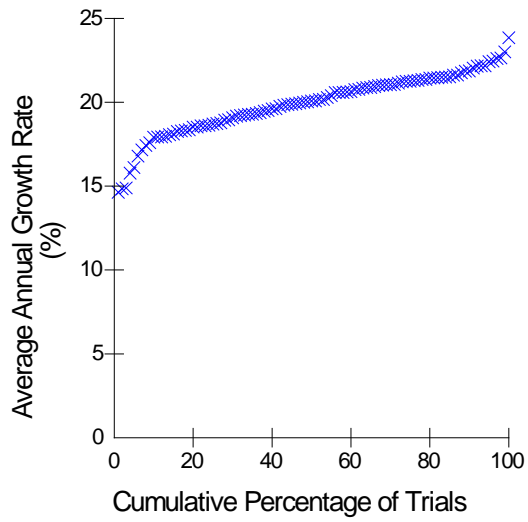
Population Size Modeling Graph and Table (No Action)



POPULATION SIZES IN 11 YEARS*			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	828	1,927	3,438
10 th Percentile	840	2,252	4,566
25 th Percentile	854	2,397	5,078
Median Trial	891	2,645	5,650
75 th Percentile	930	2,911	6,223
90 th Percentile	998	3,083	6,786
Highest Trial	1,177	3,592	7,653

* 0 to 20+ year-old horses

Growth Rate Modeling Graph and Table (No Action)

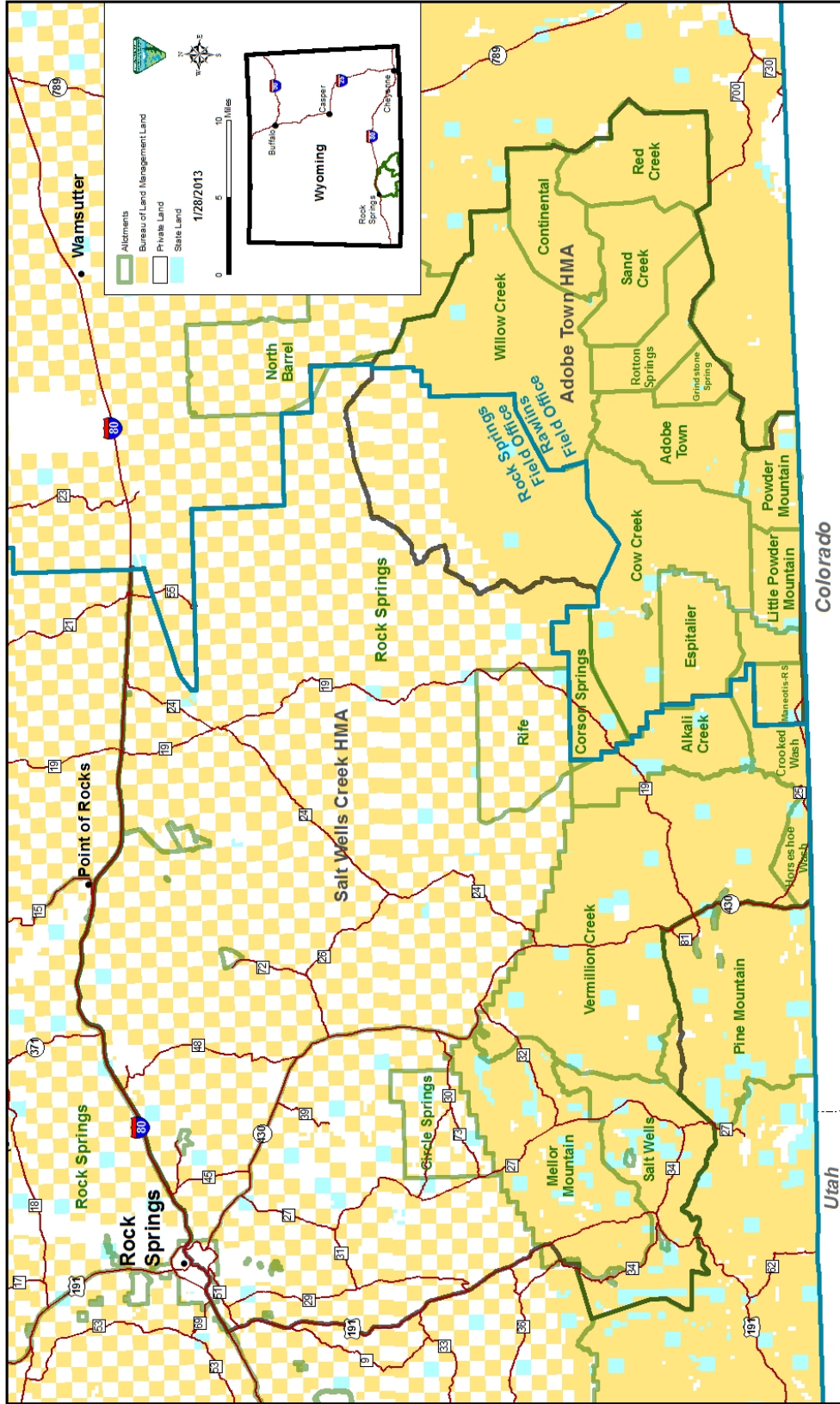


AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	14.6%
10 th Percentile	17.9%
25 th Percentile	18.7%
Median Trial	20.1%
75 th Percentile	21.3%
90 th Percentile	22.0%
Highest Trial	23.9%

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Appendix V
Livestock Grazing Allotments and Status
within the Adobe Town and Salt Wells Creek HMAs

Livestock Grazing Allotments



Appendix V
Livestock Grazing Status within the Adobe Town and Salt Wells Creek HMAs

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	Land Health Determination Date	Land Health Standard(s) Not Achieved in the Allotment and Significant Causal Factor(s) Identified	FO & HMA
Circle Springs	04001	1	946	2012	364	38%	Cattle/ Sheep	Year-long	10/01/2002	All standards are met	RSFO
				2011	431	46%					SW
				2010	445	47%					
				2009	412	44%					
				2008	487	51%					
Rife	04002	1	508	2012	508	100%	Cattle	Summer	07/12/2002	All standards are met	RSFO
				2011	508	100%					SW
				2010	508	100%					
				2009	508	100%					
				2008	426	84%					
Vermillion Creek	04003	4	12,140	2012	5,919	49%	Cattle/ Sheep	Fall/Winter/ Spring	02/19/2004	Riparian/Wetland Standard - Irrigation return flows from deeded hay meadows is identified as source of excess sediment and 1° risk factor to lower Vermillion Creek.	RSFO
				2011	6,100	50%					SW
				2010	5,181	43%					
				2009	5,222	43%					
				2008	4,544	37%					
Alkali Creek	04004	2	2,283	2012	1,564	69%	Cattle/ Sheep	Fall/Winter/ Spring	02/19/2004	All standards are met	RSFO
				2011	1,588	70%					SW
				2010	1,590	70%					
				2009	1,596	70%					
				2008	1,649	72%					
Pine Mountain	04007	3	7,763	2012	5,094	66%	Cattle/ Sheep	Year-long	11/04/1998	Soils - Riparian/Wetland Standard -- Current Livestock Management.	RSFO
				2011	5,379	69%					SW
				2010	5,298	68%					
				2009	4,474	58%					
				2008	3,646	47%					

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	Land Health Determination Date	Land Health Standard(s) Not Achieved in the Allotment and Significant Causal Factor(s) Identified	FO & HMA
Salt Wells	04009	2	2,618	2012	577	22%	Cattle	Summer	01/25/1999	Riparian/Wetland Standard - Current Livestock Management	RSFO
				2011	341	13%					SW
				2010	538	21%					
				2009	513	20%					
				2008	281	11%					
Mellor Mountain	04027	2	6,101	2012	1,102	18%	Cattle/ Sheep	Year-long	10/01/2002	Riparian/Wetland Standard - Offsite (state/private lands, county roads) impacts are the primary cause and continuing channel re-adjustment is also a causative agent.	RSFO
				2011	1,386	23%					SW
				2010	1,258	21%					
				2009	1,440	24%					
				2008	1,845	30%					
Hiawatha Tridistrict	04300	1	5,602	2012	3,150	56%	Sheep	Fall/Winter/ Spring	07/06/2004	Files located in Little Snake Field Office.	LSFO
(50% acres-LSFO: Admin Office; 39% acres-RSFO: combined with Crooked Wash Allotment; 11%-RFO: combined with Maneotis-RS Allotment)				2011	3,569	64%					RSFO
				2010	3,256	58%					RFO
				2009	3,337	60%					SW
				2008	3,211	57%					

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	Land Health Determination Date	Land Health Standard(s) Not Achieved in the Allotment and Significant Causal Factor(s) Identified	FO & HMA
Canyon-Horseshoe	04326	1	2,103	2012	877	42%	Cattle/ Sheep	Fall/Winter/ Spring	unknown	Files located in Little Snake Field Office.	LSFO
(71% acres-LSFO: Admin Office; 29% acres-RSFO: combined with Horseshoe Wash Allotment)		2		2011	698	33%					RSFO
		2		2010	1,265	60%					SW
		2		2009	387	18%					
		2		2008	0	0%					
Crooked Wash	10510	1	87	2012	86	99%	Cattle	Summer	07/06/2004	Files located in Little Snake Field Office.	LSFO
				2011	92	106%					SW
				2010	108	124%					
				2009	66	76%					
				2008	86	98%					
Rock Springs	13018	20	107,991	2012	42,358	39%	Cattle/ Sheep/ Horses (West of	Year-long	08/15/2001	Riparian/Wetland Standard - Livestock; land ownership (checkerboard); Industrial development; sewage treatment, mine de-watering, roads, irrigation diversion, non-native species, wildlife, wild horses, and mining (locatable, leasable and salable).	RSFO
				2011	46,694	43%	the Green River)	(Primarily winter use)			SW
				2010	47,300	44%					AT
				2009	47,857	44%					
				2008	47,091	44%					
Adobe	10502	1	1,820	2012	25	1%	Cattle/	Summer	09/19/2012	All standards are met	RFO

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	Land Health Determination Date	Land Health Standard(s) Not Achieved in the Allotment and Significant Causal Factor(s) Identified	FO & HMA
Town							Sheep				
				2011	94	5%					AT
				2010	219	12%					
				2009	303	17%					
				2008	262	14%					
Continental	10506	1	2,830	2012	1,554	55%	Cattle	Summer	09/19/2012	All standards are met	RFO
				2011	1,895	67%					AT
				2010	1,645	58%					
				2009	1,440	51%					
				2008	1,605	57%					
Cow Creek	10509	1	2,629	2012	1053	40%	Cattle/Sheep	Summer/Winter	09/19/2012	All standards are met	RFO
				2011	1,379	52%					AT
				2010	1,682	64%					
				2009	1,595	61%					
				2008	1,037	39%					
Espitalier	10511	2	2,775	2012	496	18%	Cattle/Sheep	Summer/Fall/Winter	09/19/2012	All standards are met	RFO
				2011	1,213	44%					AT
				2010	1,514	55%					
				2009	1,106	40%					
				2008	850	31%					
Grindstone Springs	10512	1	413	2012	0	0%	Sheep	Fall/Winter	09/19/2012	All standards are met	RFO
				2011	0	0%					AT
				2010	0	0%					
				2009	0	0%					
				2008	0	0%					
Little Powder Mountain	10513	2	1,534	2012	397	26%	Cattle/Sheep	Summer/Fall/Winter	09/19/2012	All standards are met	RFO
				2011	189	13%					AT
				2010	189	13%					
				2009	364	24%					
				2008	266	17%					

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	Land Health Determination Date	Land Health Standard(s) Not Achieved in the Allotment and Significant Causal Factor(s) Identified	FO & HMA
Powder Mountain	10519	1	1,304	2012	101	8%	Cattle/ Sheep	Summer/Fall/ Winter	09/19/2012	All standards are met	RFO
				2011	375**	29%					AT
				2010	811**	62%					
				2009	328**	25%					
				2008	0	0%					
Red Creek	10521	1	2,612	2012	186	7%	Cattle/ Sheep	Year-long	09/19/2012	All standards are met	RFO
				2011	228	9%					AT
				2010	654	25%					
				2009	500	19%					
				2008	327	13%					
Rotten Springs	10523	3	1,423	2012	*	0%	Cattle/ Sheep	Year-long	09/19/2012	All standards are met	RFO
				2011	766	52%					AT
				2010	700	48%					
				2009	87	6%					
				2008	677	46%					
Sand Creek	10524	1	2,839	2012	329	12%	Sheep	Year-long	09/19/2012	All standards are met	RFO
				2011	252	9%					AT
				2010	78	3%					
				2009	205	7%					
				2008	87	3%					
Willow Creek	10528	1	1,680	2012	704	42%	Cattle/ Sheep	Year-long	09/19/2012	All standards are met	RFO
				2011	883	53%					AT
				2010	527	31%					
				2009	1,678	100%					
				2008	422	25%					
Corson Springs (Admin Office: RSFO; located in	20507	1	1,189	2012	1,189	100%	Cattle	Summer	09/19/2012	All standards are met	RFO
				2011	1,189	100%					AT

Allotment Name	Allotment Number	Number of Operators	Active AUMs	Year	Billed AUMs	% Used	Livestock Type	Season of Use	Land Health Determination Date	Land Health Standard(s) Not Achieved in the Allotment and Significant Causal Factor(s) Identified	FO & HMA
RFO)											
				2010	1,189	100%					
				2009	1,189	100%					
				2008	1,138	96%					

*After-the-Fact Billing (Actual Use)

**RFO-Estimated

RFO – Rawlins Field Office, Wyoming

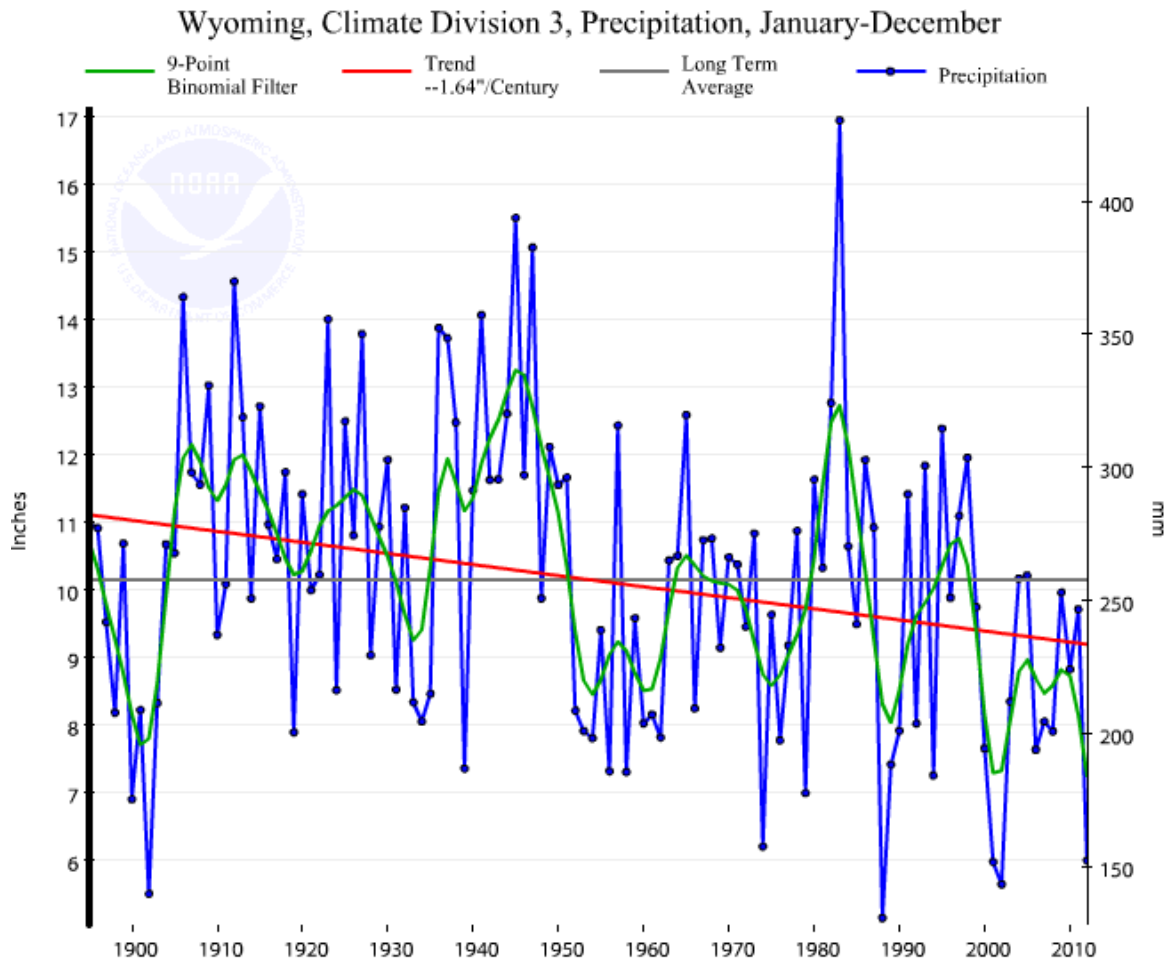
RSFO – Rock Springs Field Office, Wyoming

LSFO – Little Snake Field Office, Colorado

AT – Adobe Town HMA

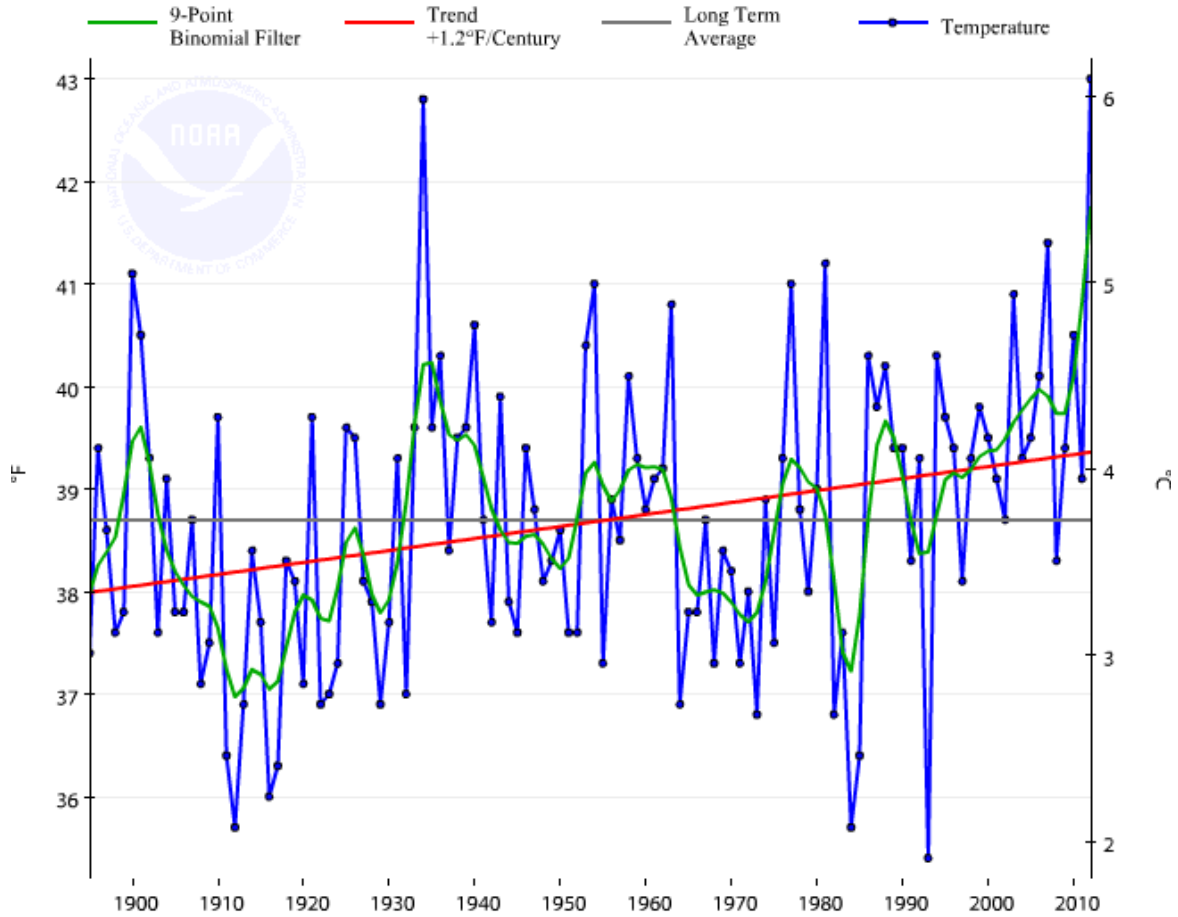
SW – Salt Wells Creek HMA

Appendix VI Precipitation and Temperature Data



Source: National Oceanic and Atmospheric Administration. 2013. National Climatic Data Center. Wyoming, Climate Division 3, Precipitation, January-December 1895-2012. <http://www.ncdc.noaa.gov/temp-and-precip/time-series/index.php?parameter=pcp&month=12&year=2012&filter=12&state=48&div=3>. Accessed 2/20/2013.

Wyoming, Climate Division 3, Temperature, January-December



Source: National Oceanic and Atmospheric Administration. 2013. National Climatic Data Center. Wyoming, Climate Division 3, Temperature, January-December 1895-2012. <http://www.ncdc.noaa.gov/temp-and-precip/time-series/index.php?parameter=tmp&month=12&year=2012&filter=12&state=48&div=3>. Accessed 2/20/2013.