

# **Bi-State Sage Grouse Forest Plan Amendment**

## **Wild Free-Roaming Horses and Burros Report**

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for:  
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## Introduction

BLM Herd Management Areas (HMAs) and Forest Service Wild Horse and Burro Territories (WHBTs) make up about 25% of the amendment area. Wild Free-Roaming Horses and Burros are currently managed to ensure the health of the public lands so that the species depending on them, including the nation’s wild horses and burros, can thrive. This report will address the effect of the proposed action upon the management of wild free-roaming horses and burros.

### Overview of Issues Addressed

#### Issue Indicators

Table 1 shows the indicators used in this analysis.

**Table 1. Comparison of Indicators by Alternative**

| Indicator   | Alternative A - No Action | Alternative B - Proposed Action   | Alternative C   |
|---|---------------------------|---|---|
| Changes to HMA/WHBT AMLs  | No Change                 | Potential adjustments made to meet BSSG habitat desired conditions.<br>Possible increase in frequency of gathers and population growth suppression treatments.                | Potential adjustments made to meet BSSG habitat desired conditions.<br>Possible increase in frequency of gathers and population growth suppression treatments.    |
| Changes in the ability to manage wild horses and burros due to BSSG habitat conservation measures | No Change                 | Increased forage availability due to reduced utilization by domestic livestock.<br>Possible decrease in water distribution.<br>Long term improvement in rangeland conditions. | Increased forage availability due to no domestic livestock grazing.<br>Possible decrease in water distribution.<br>Long term improvement in rangeland conditions. |

## Affected Environment

### Existing Condition

Following passage of the Wild Free-Roaming Horses and Burros Act of 1971 (PL 92-195, as amended by Congress in 1976, 1978, 1996, and 2004; the Act), BLM herd areas (HAs) and herd management areas (HMAs) and Forest Service wild horse and burro territories (WHBTs) were identified. Herd areas and territories are locations where wild horse and burro populations were found when the Act was passed. HMAs and WHBTs are areas within these identified herd areas, in their entirety or part, where it was established and affirmed through LUPs that sufficient forage, water, cover, and space existed to support the long-term management of healthy wild horse or burro populations.

The BLM program emphasis is beyond just establishing an appropriate management level (AML) and conducting wild horse gathers to include a variety of management actions that further facilitate the achievement and maintenance of viable and stable wild horse populations and a “thriving natural ecological balance.” Management actions resulting from shifting program

emphasis include increasing fertility control, adjusting sex ratio, and collecting genetic baseline data to support genetic health assessments. The Forest Service has been a cooperating agency to these additional management efforts.

Wild horses are a long-lived species with survival rates estimated between 80 and 97 percent and may be the determinant of wild horse population increases (Wolfe 1980; Eberhardt et al. 1982; Garrott and Taylor 1990). Wild horse numbers appear to be limited principally by water availability and winter forage. Predation and disease have not substantially regulated wild horse population levels within or outside the planning area. Throughout the HMAs few predators exist to control wild horse populations. Some mountain lion predation occurs but does not appear to be substantial. Coyotes are not prone to prey on wild horses unless they are young or extremely weak. Being a non-self-regulating species, there would be a steady increase in wild horse numbers for the foreseeable future, which would continue to exceed the carrying capacity of the range. Animal movement and distribution are controlled by fencing and the distribution of watering sources.

There are 859,046 acres of wild horse and burro herd areas, HMAs, and WHBTs within the amendment area. There are 10 herd areas and territories within the amendment area. These areas overlap 108,617 acres of habitat. These identified herd areas were the basis for current identified HMAs as established through LUPs.

The BLM manages 8 HMAs and the Forest Service manages 2 WHBTs in the amendment area. 5 HMAs and 1 WHBT overlap BSSG habitat. Wild horse and burro populations in HMAs and WHBTs are managed within AMLs and corresponding forage allocations (AUMs). The AML is defined as the maximum number of wild horses that can be sustained within a designated HMA or WHBT that achieves and maintains a thriving natural ecological balance. The AML for each HMA and WHBT, in most cases, is expressed as a range with an upper and lower limit. The AUM allocation for wild horses and burros in HMAs and WHBTs is based on the upper limit of the AML range. Initial AMLs and the boundaries of each HMA and WHBT were established through previous LUPs to ensure that public land resources, including wild horse habitat, are maintained in satisfactory, healthy condition and that unacceptable impacts on these resources are minimized. The AML ranges are based on best available science and rangeland monitoring studies. HMA and WHBT acreages by habitat type along with current appropriate management levels are shown in Table 2.

**Table 2. BLM Herd Management Areas and Forest Service Territories within the Amendment Area**

| Herd Management Area or Wild Horse and Burro Territory | BLM District Office or Forest Service Ranger District | Total Acres in Amendment Area | Total Acres within Bi State Sage Grouse Habitat | Appropriate Management Level | Est. Pop. No. |
|--|---|-------------------------------|---|------------------------------|---------------|
| <b>BLM</b>   |   |                               |   |                              |               |
| Fish Lake Valley                                       | Battle Mountain                                       | 67,025                        | 24,273  | 54                           | 197           |
| Garfield Flat  | Carson City   | 12,514                        | 0   | 83–125                       | 120           |
| Marietta   | Carson City   | 66,045                        | 0   | 78–104                       | 165           |
| Montezuma Peak   | Battle Mountain                                       | 31                            | 0   | 146 h; 10 b                  | 74 h; 100 b   |
| Palmetto   | Battle Mountain                                       | 116,487                       | 17,856  | 76                           | 0             |
| Pine Nut Mountains                                     | Carson City   | 104,306                       | 23,816  | 119–179                      | 266           |

|                       |                      |         |        |          |             |
|-----------------------|----------------------|---------|--------|----------|-------------|
| Silver Peak           | Battle Mountain      | 242,169 | 8,102  | 6 h; 0 b | 136 h; 10 b |
| Wassuk                | Carson City          | 51,743  | 8,356  | 109–165  | 169         |
| <b>Forest Service</b> |                      |         |        |          |             |
| Montgomery Pass       | Inyo National Forest | 112,599 | 0      | 138–230  | 340         |
| Powell Mountain       | Bridgeport           | 86,126  | 26,214 | 29       | 0           |

The HMAs, WHBTs, and associated wild horse and burro populations within the planning area are managed within the established AML and management objectives identified within the land use plans, herd management area plan, or Territory Management Plan. The AML, objectives, and management actions may be modified in future multiple-use decisions for the grazing allotments contained within an HMA or WHBT. Various factors, including drought conditions, historic grazing, wildfires, and wild horse population growth, may adversely affect habitat and, in some instances, herd health. Wild horses that establish home ranges outside of HMA, WHBT, or herd area boundaries are removed during gathers. Wild horses are removed from private lands at the request of the landowner and after reasonable efforts to keep the animals off private lands have failed.

The estimated population size of wild horses and burros within each HMA/WHBT is based on helicopter inventories, which occur every two to three years. These population inventory flights provide information pertaining to population numbers, foaling rates, distribution, and herd health. Inventory flights can occur throughout the year. Population estimates within the planning area show a total estimated population of 1,209 horses and burros. Population estimates indicate that the number of horses and burros exceeds the aggregated AML.

Although determined by population monitoring, it is generally necessary to gather horses and burros on a three- to four-year schedule to ensure that numbers remain within the AML. Unfortunately, this has not been consistently possible because of insufficient funding and holding space; therefore, AMLs are frequently exceeded. Following gathers, some animals are selected for return to the HMA or WHBT; excess horses or burros are placed in the adoption program, made available for sale, or in long-term holding.

The rangelands of the intermountain west have had a several thousand year period in which large hoofed grazers were rare (Connelly et al 2004, Reisner 2010). As a result, sagebrush ecosystems are particularly sensitive to surface disturbances (Belnap et al 2001) and many of the native bunchgrasses are highly sensitive to grazing (Adler et al 2004, Mack and Thompson 1982). Wild horses and burros occupy the landscape year round with minimal management which often results in long lasting effects on the vegetation and soil characteristics of rangelands (Beever 2003).

These plant community changes can have negative impacts on sage grouse and other sagebrush-obligate wildlife. Wild horse and burro grazing has been shown to limit sagebrush recruitment, reduce sagebrush density, reduce grass abundance and cover, lower plant species diversity, increase dominance of forbs unpalatable to sage grouse and compact surface soil horizons (Beever and Aldridge 2011, Beever and Herrick 2006, Davies et al 2014). The effects can be especially pronounced during drought conditions (Beever and Aldridge 2011).

Current conditions within the planning area show that wild horse populations continue to grow, often exceeding AMLs. Wild horses will continue to be removed to regain and maintain appropriate management levels and rangeland health.

## *Desired Condition*

The BLM and Forest Service protect, manage, and control wild horses and burros in accordance with the Wild Free-Roaming Horses and Burros Act of 1971 (PL 92-195, as amended by Congress in 1976, 1978, 1996, and 2004; the Act). The Act mandates the BLM and Forest Service to “prevent the range from deterioration associated with overpopulation” and “remove excess horses in order to preserve and maintain a thriving natural ecological balance and multiple use relationships in that area.” FLPMA directs the BLM and Forest Service to manage wild horses and burros as one of numerous multiple uses and resources, including mining, recreation, domestic grazing, and fish and wildlife. Wild horse and burro management is governed by 43 CFR Part 4700 (BLM) and 36 CFR Part 222 Subpart B (Forest Service). One of the BLM’s and Forest Service’s top priorities is to ensure the health of the public lands so that the species depending on them, including the nation’s wild horses and burros, can thrive. BLM and Forest Service policies and regulations also direct that wild horses and burros are to be managed as self-sustaining populations of healthy animals at minimal feasible levels.

## Environmental Consequences

### *Methodology*

The information used in this report was gathered from several GIS layers and documents from the BLM and Forest Service.

### Assumptions

The analysis includes the following assumptions:

While wild horses and burros may be found on lands outside HMAs/WHBTs, these areas have no forage allocated to wild horses and burros and BLM/Forest Service has no authority to manage (except to remove) wild horses and burros outside of HMAs/WHBTs.

Designated HMAs/WHBTs meet the four-season habitat needs and allow for a self-sustaining herd at a designated AML.

Wild horse and burro gather operation scheduling is a product of a national priority process. Factors affecting gather priorities include determinations of excess horses and overpopulations, wild horse and range condition, annual appropriations, litigation and court orders, emergency situations (i.e., disease, weather, fire, etc.), availability of contractors, adoption market, and long-term holding availability for unadoptable excess horses.

### Past, Present, and Foreseeable Activities Relevant to Cumulative Effects Analysis

The BLM and Forest Service have conducted a number of gather operations to remove excess wild horses and burros. In addition to gathers, the BLM and Forest Service also conduct fertility control treatments and adjust sex ratios within herds. Gathers and other management actions will continue in the future to ensure that wild horse and burro herds and the rangelands they inhabit are healthy and self-sustaining.

## *Alternative A – No Action*

### Direct Effects

There are no direct effects if the no action alternative is selected. Management of wild horses and burros will continue as described in the Affected Environment.

### Indirect Effects

There are no indirect effects if the no action alternative is selected. Management of wild horses and burros will continue as described in the Affected Environment.

### Cumulative Effects

Because there are no direct or indirect effects, there are no cumulative effects if the no action alternative is selected.

### Summary of Effects

Selecting the No Action Alternative will have no effect on the current management of wild horses and burros within the amendment area. Excess horses and burros will continue to be removed and other actions, such as fertility control, will continue to be implemented.

## *Alternative B – Modified Proposed Action*

### Direct/Indirect Effects

The following HMAs/WHBTs contain Bi-State sage grouse habitat and would be affected by the modified proposed action: Fish Lake Valley, Palmetto, Pine Nut Mountains, Powell Mountain, Silver Peak, and Wassuk.

Under Alternative B, Standard B-WHB-S-01 requires that AMLs be established or adjusted in order to achieve the BSSG habitat desired conditions. Each HMA/WHBT containing BSSG habitat would be evaluated to determine its impact on BSSG habitat and the AMLs would be adjusted accordingly.

Managing for the BSSG habitat desired conditions could improve forage production and availability over the long term which would have a beneficial impact on wild horse and burro populations. Modification or elimination of livestock watering facilities could reduce water availability resulting in increased wild horse and burro use at remaining facilities and the potential need for reduction of wild horse and burro numbers within a HMA/WHBT. BSSG habitat restoration projects that remove encroaching pinyon-juniper and treat invasive weed infestations would have a beneficial effect on wild horse and burro populations by improving plant community composition and forage availability.

### Cumulative Effects

The Forest Service and BLM will continue establishing and adjusting AMLs through HMA specific analyses. Gathers will continue to be implemented to remove excess animals and to apply fertility control treatments.

## *Alternative C*

### Direct/Indirect Effects

The following HMAs/WHBTs contain Bi-State sage grouse habitat and would be affected by Alternative C: Fish Lake Valley, Palmetto, Pine Nut Mountains, Powell Mountain, Silver Peak, and Wassuk.

Under Alternative C, Standard B-WHB-S-01 requires that AMLs be established or adjusted in order to achieve the BSSG habitat desired conditions. Each HMA/WHBT containing BSSG habitat would be evaluated to determine its impact on BSSG habitat and the AMLs would be adjusted accordingly. Managing for the BSSG habitat desired conditions could improve forage production and availability over the long term which would have a beneficial impact on wild horse and burro populations. BSSG habitat restoration projects that remove encroaching pinyon-juniper and treat invasive weed infestations would have a beneficial effect on wild horse and burro populations by improving plant community composition and forage availability.

Alternative C would eliminate domestic livestock within BSSG habitat. All grazing allotments containing BSSG habitat would be closed and AUMs allocated to domestic livestock would be eliminated. Removal of domestic livestock from BSSG habitat would eliminate competition between wild horses and burros and domestic livestock for forage.

Modification or removal of livestock watering facilities could reduce water availability resulting in increased wild horse and burro use at remaining facilities and the potential need for reduction of wild horse and burro numbers within a HMA/WHBT. Removal of existing fences could hinder wild horse and burro management efforts by removing barriers to horse and burro movement.

### Cumulative Effects

The Forest Service and BLM will continue establishing and adjusting AMLs through HMA specific analyses. Gathers will continue to be implemented to remove excess animals and to apply fertility control treatments.

### Compliance with Forest Plan and Other Relevant Laws, Regulations, Policies and Plans

All three alternatives comply with the Wild Free-Roaming Horses and Burros Act of 1971, the Toiyabe LRMP, the Carson City RMP, Battle Mountain RMP, and BLM and Forest Service directives and policies.

### Summary of Effects

Implementation of Alternative B could impact 6 HMAs/WHBTs within the amendment area. Revisions to management plans and AMLs may be required to meet desired conditions for Bi-State sage grouse habitat. Managing for the BSSG habitat desired conditions by adjusting wild horse and burro populations, reducing domestic livestock utilization and restoring sagebrush habitats should improve forage production and availability over the long term which would have a beneficial impact on wild horse and burro populations.

Implementation of Alternative C could impact 6 HMAs/WHBTs within the amendment area. Alternative C would eliminate competition between domestic livestock and wild horses and burros. Revisions to management plans and AMLs may be required to meet desired conditions for Bi-State sage grouse habitat. Managing for the BSSG habitat desired conditions by adjusting

wild horse and burro populations, eliminating domestic livestock grazing and restoring sagebrush habitats should improve forage production and availability over the long term which would have a beneficial impact on wild horse and burro populations.

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