United States Department of the Interior
Bureau of Land Management

BLM

Environmental Assessment
DOI-BLM-CO-N010-2024-0018

Renewal of grazing lease #0500932 on the Sugarloaf Peak Allotment #04055 and the Lower Bord Gulch Allotment #04057 and the renewal of grazing permits #0500933 and #0500652 on the Sugar Loaf Butte Allotment #04433 along with changes to the terms and conditions of these grazing permits/lease

January 2024

U.S. Department of the Interior
Bureau of Land Management
Northwest District
Little Snake Field Office
455 Emerson St.
Craig, CO 81625

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1. INTRODUCTION

Identifying Information

Project Title: Renewal of grazing lease #0500932 on the Sugarloaf Peak Allotment #04055 and the Lower Bord Gulch Allotment #04057 and the renewal of grazing permits #0500933 (Wild Animal Sanctuary, LLC) and grazing permit #0500652 (Poulson) on the Sugar Loaf Butte Allotment #04433 along with changes to the terms and conditions of these grazing permits/lease.

Legal Description: See allotment map, Appendix A, Figure 1

#04057	T8N R94W parts of Sec. 13, 24, 25
Lower Bord Gulch	T8N R93W parts of Sec. 7, 8, 17, 18, 19-22, 27-34
	T7N R93W parts of Sec. 3-10, 14-18, 21-23
	13,002 acres Private
	2,549 acres BLM
	15,551 acres Total
#04055	T7N R94W parts of Sec. 1, 2, 10-15, 21-24
Sugarloaf Peak	T7N R93W parts of Sec. 6, 7, 18, 19
	6,455 acres Private
	701 acres BLM
	7,156 acres Total
#04433	T7N R94W parts of Sec. 25-28, 33-36
Sugarloaf Butte	
	2,772 acres Private
	625 acres BLM
	3,397 acres Total

Applicant: Wild Animal Sanctuary, Giles and Lorraine Poulson

NEPA Document Number: DOI-BLM-CO-N010-2023-00xx-EA

Lease/Allotment Number: 0500932/04055, 04057; 0500933 & 0500652 /04192

1.1. Background

The history of grazing on these allotments starts around 1939 with a variety of lessees over the years. Typical authorized grazing was for cattle over this time. The Culverwell family, which eventually became Rio Ro Mo Acres, LLC, was authorized to graze these allotments since about 1993. In 2020, a portion of the base property on the Sugarloaf Butte Allotment #04433 was sold to Giles and Lorraine Poulson. Following the purchase, the Poulson's applied for BLM grazing preference and AUMs were divided amongst the base property holders within that allotment.

Consecutively, in 2022 The Wild Animal Sanctuary purchased the remainder of the base property and applied for transfer of the grazing preference. As part of their acquisition Wild Animal Sanctuary, LLC, also applied for a change in class of livestock to include horses. BLM has worked with the Wild Animal Sanctuary,LLC to coordinate efforts on their private land with their BLM grazing permit/lease to evaluate this change in management of the property.

1.2. Purpose and Need for Action

Both permittees have applied for a change in class of livestock on BLM authorization #0500932, #0500933, and 0500652. BLM lease #0500932 authorizing grazing on the Sugarloaf Peak Allotment #04055 and the Lower Bord Gulch Allotment #04057 is currently issued under an extension under the authority of Section 402(C)(2) of the Federal Land Policy and Management Act (FLPMA) of 1976, as amended. This lease is subject to renewal at the discretion of the Secretary of the Interior, who delegated the authority to BLM, for a period of up to ten years. BLM has the authority to renew the livestock grazing permits and leases consistent with the provisions of the *Taylor Grazing Act, Public Rangelands Improvement Act, Federal Land Policy and Management Act,* and Little Snake Field Office's *Record of Decision and Resource Management Plan.* This plan includes the *Colorado Public Land Health Standards* and the *Guidelines for Grazing Management.*

BLM is required to provide for public uses of public land resources under the principles of multiple use and sustained yield. Among these uses is the allocation of forage for the purposes of domestic livestock grazing. BLM allocates grazing privileges in a manner that ensures orderly and sustainable consumption of forage while ensuring that wildlife habitat, vegetative, and soil resources remain healthy and provide for a wide array of other public benefits.

The following Environmental Assessment (EA) will analyze the impacts of livestock grazing on public land managed by the BLM. The analysis will recommend terms and conditions to the lease which improve or maintain public land health. The Proposed Action will be assessed for meeting land health standards.

In order to graze livestock on public land, the livestock producer (permittee/lessee) must hold a grazing lease/permit. The grazing permittee has a preference right to receive the lease if grazing is to continue. The land use plan allows grazing to continue. This EA will be a site specific look to determine if grazing should continue as provided for in the land use plan and to identify the conditions under which it can be renewed.

1.3. Decision to be Made

Based on the analysis contained in this EA, the BLM will decide whether to approve the proposed grazing lease renewal and if so, under what terms and conditions. Under the National Environmental Policy Act (NEPA), the BLM must determine if there are any significant environmental impacts associated with the Proposed Action warranting further analysis in an Environmental Impact Statement (EIS). The Field Manager is the responsible officer who will decide one of the following:

- To approve the grazing lease renewal with design features as submitted;
- To approve the grazing lease renewal with additional mitigation added;
- To analyze the effects of the grazing lease renewal in an EIS; or

- To deny the grazing lease renewal.

1.4. Conformance with the Land Use Plan

The Proposed Action is subject to and is in conformance (43 CFR 1610.5) with the following land use plan:

Land Use Plan: Little Snake Record of Decision and Approved Resource Management Plan (ROD/RMP), as amended by the Northwest Colorado Greater Sage-grouse Approved Resource Management Plan Amendment

Date Approved: October 2011, amended September 2015

Decision Language: Section 2.14 Livestock Grazing, p. RMP-27

"Manage resources, vegetation, and watersheds to sustain a variety of uses, including livestock grazing, and to maintain the long-term health of rangelands."

"Provide for efficient management of livestock grazing allotments."

"Contribute to the stability and sustainability of the livestock industry."

2. PUBLIC INVOLVEMENT

The BLM uses a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to identify issues, concerns, and potential impacts that require detailed analysis. Scoping is both an internal and external process. Internal scoping was initiated when the project was presented to the Little Snake Field Office (LSFO) interdisciplinary team on May 24, 2024. External scoping was conducted by posting this project on the LSFO's on-line NEPA register on January 30, 2024

3. PROPOSED ACTION AND ALTERNATIVES

3.1. Proposed Action (Alternative A)

Renew grazing lease #0500932 to Wild Animal Sanctuary, LLC on the Sugarloaf Peak Allotment #04055 and the Lower Bord Gulch Allotment #04057 for ten years, expiring February 28, 2034 with the changes to terms and conditions as shown below:

From:

Allotment	**Livestock**	**Grazing Period**			
Name and Number	**Number and Kind**	**Begin**	**End**	**%PL**	**AUMs**
Lower Bord Gulch	60 Sheep	03/01	12/30	100	120
#04057	12 Cattle	03/01	12/30	100	120
Sugarloaf Peak #04055	12 Cattle	05/01	11/02	100	73

Special Terms and Conditions: None

To:

Allotment	Livestock	Grazing Period			
Name and Number	**Number and Kind**	**Begin**	**End**	**%PL**	**AUMs**
Lower Bord Gulch	24 Horses	3/3	10/31	100	192
#04057		11/1	12/31	100	48
					Total 240
Sugarloaf Peak #04055	7 Horses	3/1	10/31	100	56
	7 Horses	11/1	12/31	100	14
					Unscheduled 3
					Total 73

Special Terms and Conditions:
Grazing patterns will be rotated so the same areas are not grazed in the same season in consecutive years.

Actual Use will be reported to the BLM in the spring and early winter summarizing where livestock have grazed, number of livestock grazing, and dates of grazing use. Ownership of livestock will also be reported at this time. BLM may also request the summary of livestock description and ownership be updated on the lessee database within reasonable timeframes to assist with grazing administration and compliance.

The class of livestock may be changed to cattle or sheep so long as the total AUMs are not exceeded.

The above permit would be subject to the Standard and Common Terms and Conditions below.

Renew grazing permit #0500933 to Wild Animal Sanctuary, LLC on the Sugarloaf Butte Allotment #04433 for ten years, expiring February 28, 2034 with the changes to terms and conditions as shown below:

From:

Allotment	Livestock	Grazing Period			
Name and Number	**Number and Kind**	**Begin**	**End**	**%PL**	**AUMs**
Sugarloaf Butte #04433	1 Cattle	05/01	9/15	100	4
					Unscheduled 2
					Total 6

Special Terms and Conditions: None

To:

Allotment	Livestock	Grazing Period			
Name and Number	**Number and Kind**	**Begin**	**End**	**%PL**	**AUMs**
Sugarloaf Butte #04433	1 Horse	3/20	9/30	100	6

Special Terms and Conditions:
Grazing patterns will be rotated so the same areas are not grazed in the same season in consecutive years.

Actual Use will be reported to the BLM in the spring and early winter summarizing where livestock have grazed, number of livestock grazing, and dates of grazing use. Ownership of livestock will also be reported at this time. BLM may also request the summary of livestock description and ownership be updated on the lessee database within reasonable timeframes to assist with grazing administration and compliance.

The class of livestock may be changed to cattle or sheep so long as the total AUMs are not exceeded.

The above lease would be subject to the Standard and Common Terms and Conditions below.

Renew grazing permit #0500652 to Giles and Lorraine Poulson on the Sugarloaf Butte Allotment #04433 for ten years, expiring February 28, 2034 with the changes to terms and conditions as shown below:

From:

Allotment	**Livestock**	**Grazing Period**			
Name and Number	**Number and Kind**	**Begin**	**End**	**%PL**	**AUMs**
Sugarloaf Butte #04433	2 Cattle	05/01	10/15	100	11
				Unscheduled	1
				Total	**12**

Special Terms and Conditions:
None

To:

Allotment	**Livestock**	**Grazing Period**			
Name and Number	**Number and Kind**	**Begin**	**End**	**%PL**	**AUMs**
Sugarloaf Butte #04433	2 Horse	3/20	9/25	100	12

Special Terms and Conditions:
Grazing patterns will be rotated so the same areas are not grazed in the same season in consecutive years.

The class of livestock may be changed to cattle or sheep so long as the total AUMs are not exceeded.

The above lease/permits would be subject to the Standard and Common Terms and Conditions, see Appendix B.

Drought Management

The forage allocation on the above lease reflects forage available for livestock during years of average or above average precipitation. During periods of regional drought, the amount of available forage on the allotments may not be sufficient to provide for all or part of the livestock demand and still provide forage and cover for wildlife and for soil protection. Identification of drought and the description of appropriate responses are listed in Appendix C. Drought management actions would not be attached to the grazing lease, but rather analyzed here so that, if necessary, the analysis of them in this document may be used as a basis for issuing a grazing decision in response to drought conditions. As the Drought Management protocol described in Appendix C is comprehensive, not all drought triggers or Drought Response Actions (DRAs) described may be applicable for the allotment.

3.2. No Action Alternative (Alternative B)

Renew the grazing lease and permits with the existing terms and conditions. The Standard and Common Terms and Conditions would continue to apply.

3.3. No Grazing Alternative (Alternative C)

Grazing lease #0500933, #0500932 and #0500652 would be cancelled as well as the grazing preference that is currently attached to the applicant's base property. No livestock grazing would be authorized to graze BLM on the on the Lower Bord Gulch Allotment #04057, Sugarloaf Peak Allotment #04055 or the Sugar Loaf Butte Allotment #04433.

4. ISSUES

The CEQ Regulations state that environmental assessments (EA)s should "briefly provide sufficient evidence and analysis" for determining whether to prepare an EIS or a finding of no significant impact (FONSI) (40 CFR 1501.5) and that agencies should only briefly discuss issues other than significant ones (40 CFR 1500.4(e)). While many issues may arise during scoping, not all of the issues raised warrant analysis in an EA. Issues will be analyzed if: 1) an analysis of the issue is necessary to make a reasoned choice between alternatives, or 2) if the issue is associated with a significant impact, or where analysis is necessary to determine the significance of the impact. The following sections list the resources considered and the determination as to whether they require additional analysis.

4.1. Issues Analyzed

The following issues are analyzed in detail in this EA (Section 5):

Upland Vegetation

1. How does the addition of horses to the primary class of livestock impact upland vegetation on the allotment?

Wildlife Resources

1. How would changes in livestock grazing impact wildlife habitat, including habitat for greater sage-grouse?

Cultural Resources

1. How would the proposed grazing permit affect sites of Native American and Euro-American origin within the project area?

4.2. Issues Considered but not Analyzed

Air Quality: How would renewing the grazing lease for ten years affect air quality?

Ranching operations and livestock activities are not a significant source of air pollutants in Moffat County, and so impacts to air quality caused by either alternative would be negligible.

Groundwater Quality and Hydrology: How would renewing the grazing lease for ten years affect water resources?

The proposed action is limited to surface activity and there are no perennial waterways present in the project area. Impacts on this resource do not require detailed analysis.

Soil Resources: How would renewing the grazing lease for ten years affect soil compaction and erosion?

This resource is currently meeting land health standards, and with the proposed rotational grazing will continue to be protected. Impacts on this resource do not require detailed analysis.

Paleontological Resources: How would renewing the grazing lease for ten years affect paleontological resources?

Renewing the grazing lease for 10 years would not affect paleontological resources because there would be no surface disturbance of the bedrock. There are no known paleontological resources in the project area.

Visual Resources: How would the grazing lease renewal affect the visual setting?

No changes to the visual setting would occur as a result of renewing the grazing lease.

Social and Economic Conditions: How would the grazing lease renewal affect social or economic conditions?

Implementing the Proposed Action facilitates continued livestock grazing practices in the project area. Livestock grazing in the project area has been a small but consistent local economic driver and would continue to contribute to the local economy under the Proposed Action. Therefore, the Proposed Action is not expected to impact Social and Economic Conditions.

Environmental Justice: Would renewal of the grazing lease have adversely high and disproportionate impacts on minorities or low-income communities?

According to the 2022 Census Bureau website, https://www.census.gov/quickfacts/fact/table/moffatcountycolorado,CO/PST045219, there are no minority populations within the impact area of Moffat County. Hispanic or Latino represented 17%, less than the state average of 22.5%. Blacks, American Indians, Asians, and Pacific Islanders accounted for less than 2% of the population, equal to or below the comparable state figure in all cases. The census counted 10% of the Moffat County population as living in families with incomes below the poverty line, compared to 9.4% for the entire state. Both minority and low-income populations are dispersed throughout the County, therefore, no minority or low-income populations would suffer disproportionately high and adverse effects as a result of any of the alternatives.

Lands and Realty: How would the proposed grazing lease renewal affect realty authorizations?

The proposed action would not have an impact to existing realty authorizations; there are no proposed changes to land tenure within the allotment.

Recreation and Public Access: Would the renewal of the grazing lease impact recreation or public access?

The proposed action would not impact recreation or access to the project area.

5. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

5.1. General Setting & Access to the Project Area

The Lower Bord Gulch Allotment #04057, Sugarloaf Peak Allotment# 04055, and Sugarloaf Butte Allotment #04433 are located near the community of Lay, CO along Highway 40 and transected by CR 17. The surface ownership is primarily private with scattered parcels of BLM mixed in the allotments, comprising less than 20% of the ownership.

Vegetation type is sagebrush dominated shrublands with some Rocky Mountain Juniper mixed in in on the rolling hills. Elevation on the allotments averages about 6,500'. The climate is typical of the Rocky Mountains, with cold, snowy winters and relatively cooler summers.

5.2. Upland Vegetation

5.2.1. How does the addition of horses to the primary class of livestock impact vegetation on the allotment?

Affected Environment

The plant communities in these allotments include sagebrush shrubland and pinon juniper hills. The public lands are small parcels intermixed with larger areas of private ownership. The Lower Bord Gulch Allotment #04057 is dominated by Wyoming big sagebrush with a mix of rubber rabbitbrush, greasewood and some black sagebrush present as well. Perennial grasses include Sandberg bluegrass, western wheatgrass, crested wheatgrass, needle and thread, squirrel tail, and Indian ricegrass. A diversity of forbs were present including lupine, winterfat, scarlet

globemallow, prickly pear, Indian paintbrush, long leaf phlox, four-wing saltbush, and salsify. Cheatgrass was the primary invasive specie present with some Scotch thistle as well. The Sugarloaf Peak Allotment #04055 and Sugarloaf Butte Allotment # 04433 are similar in plant species dominated by sagebrush with high diversity of forbs and perennial grasses but had the addition of Utah juniper and more hilly terrain.

Reasonably Foreseeable Environmental Trends

According to the U.S. Drought Monitor (NOAA, 2023) Moffat County, Colorado is currently in a period of moderate drought, and has experienced intermittent periods of some level of drought and normal moisture over the past 20 years. Periods of Moderate, Severe, or Exceptional drought persisted from 2002 – 2005, 2012 – 2013, 2015, 2018, 2019, and 2021 and into 2022. The trend shows increasing frequency and severity of drought (see graph, Appendix A, Figure 2).

Planned Actions in the Area

These allotments are intermixed with public and private lands. Public access is fairly limited throughout most of the allotments. There are no established or developed trails in the area. Other use has been livestock grazing in the same manner as it currently occurs along with extensive wildlife habitat and some past oil and gas activity. There are no expected recreational or commercial developments expected within the allotment in the foreseeable future.

Alternative A (Proposed Action) - Direct, Indirect, and Cumulative Effects

Under this alternative, the primary class of livestock would change to horses. There is a minimal change in dates of livestock grazing. A special term and condition to not graze the same areas at the same time of year in consecutive years provides a basic grazing rotation for vegetation management.

Horse grazing is mechanically different than cattle which have historically been present on these allotments. Horses have both upper and lower teeth which nip grasses closer to the ground. Cattle have only lower teeth with a hard palette on the top and rip the grass, resulting in the vegetation being removed further up the plant and less close to the ground. Total consumption of forage is fairly similar between species but patterns of grazing and selectivity vary between cattle and horses. Horses will also travel more easily throughout a pasture while cattle may tend to stay closer to loafing and water supply areas.
Utilizing the grazing terms and conditions at appropriate stocking rates and the basic rotation schedule would maintain the land health and vegetation community within these allotments.

All use by livestock on these allotments is in addition to use by wild ungulates (elk and mule deer) and sage grouse that utilize the same forage plants. There is no indication that forage allocated to livestock on these allotments is detrimental to wildlife populations in the area.

The application of the Drought Management actions shown in Appendix C would allow for administrative actions to occur as necessary if growing conditions were insufficient for full permitted use without detrimental impacts to the plant community stressed by drought.

Alternative B (No Action) – Direct, Indirect, and Cumulative Effects

Under this alternative, livestock would continue grazing as has been done historically. Livestock would graze and trample forage plants, particularly grasses and forbs. Long term damage to this component of plant communities occurs when these impacts occur repeatedly on individual plants in the same season. The typical livestock use that has occurred on these allotments would ensure that livestock do not excessively graze or trample forage plants.

All use by livestock on these allotments is in addition to use by wild ungulates (elk and mule deer) and sage grouse that utilize the same forage plants. There is no indication that forage allocated to livestock on these allotments is detrimental to wildlife populations in the area.

The application of the Drought Management actions shown in Appendix C would allow for administrative actions to occur as necessary if growing conditions were insufficient for full permitted use without detrimental impacts to the plant community stressed by drought.

Alternative C (No Grazing) – Direct, Indirect, and Cumulative Effects

By eliminating livestock grazing on the allotments, all available forage would be allocated to other grazing animals such as elk and mule deer. All impacts to forage plants related to livestock herbivory would cease. However, under this alternative, new barbed-wire fencing would need to be constructed since the boundary between the public and private land is unfenced. The amount of vegetation that would need to be removed in order to facilitate the construction and maintenance of a fence along with the increased risk to wildlife by the presence of additional fencelines would be a far greater than any impacts to vegetation by current or proposed livestock use.

5.3. Wildlife Resources

5.3.1. How would changes in livestock grazing impact wildlife habitat, including habitat for greater sage-grouse?

Affected Environment

Native plant communities on the three allotments are comprised of juniper woodlands and sagebrush stands with a herbaceous understory of grasses and forbs. These vegetative communities provide habitat for big game species as well as small mammals, reptiles and migratory birds. BLM sensitive species with habitat in the area include greater sage-grouse and Brewer's sparrow. In addition, small rocky cliffs provide nesting substrate for golden eagles and other raptor species. The general area provides important habitat for wintering pronghorn, mule deer, and elk.

The three allotments provide 3,300 acres of habitat for greater sage-grouse. Based on Colorado Parks and Wildlife (CPW) mapping efforts, sage-grouse habitat has been classified into two major types: 1) priority habitat management areas (PHMA) and 2) general habitat management areas (GHMA). PHMA are areas that have been identified as having the highest conservation value to maintaining sustainable greater sage-grouse populations. Approximately 1,450 acres of sage-grouse habitat is mapped as PHMA with the rest of the habitat mapped as GHMA. Sage-grouse habitat on BLM lands within the Sugarloaf Peak and Sugarloaf Butte Allotments is

limited, due to natural topography and the small, patchy nature of sagebrush stands on the allotments. The majority of PHMA is in the northern portion of the Lower Bord Gulch Allotment, where sagebrush becomes the dominant vegetation.

The allotments are located in CPWs greater sage-grouse management Zone 3c. Lek counts in 2023 were at 550 males with a three year average of 438 males in this management zone. There are several active leks in the vicinity of the three allotments and PHMA provides nesting, summer and winter habitat for sage-grouse.

Effects of Alternative A (Proposed Action)

The proposed action is expected to be compatible with maintaining suitable habitat for wildlife species, including golden eagles, Brewer's sparrow and big game species. Historically, these three allotments have been grazed by cattle. Under the Proposed Action, the primary class of livestock would change to horses. Plant use by horses would be similar to cattle since both species primarily target grasses for forage. During LHAs in 2022 and 2023, perennial grasses were healthy and vigorous with three to five native species present at each site. Grasses are expected to be resilient to the proposed changes in livestock grazing. Shrubs and woodlands were also found to be healthy and are providing suitable cover for wildlife species. Although some weedy species, such as cheatgrass were found at LHA sites, these species were at acceptable levels.

Specific to greater sage-grouse, current habitat conditions are expected to continue under the Proposed Action. Sagebrush stands in the allotments were found to be healthy during LHAs and the herbaceous understory was robust and vigorous. Perennial grass cover and height were suitable for nest and young concealment. Crested wheatgrass was found across the allotment, and although this is not a native perennial grass, it does provide very good cover for grouse. Horses can clip grasses closer to the ground than cattle and ensuring rotation through the allotments is essential to maintaining herbaceous cover. Providing rotation does occur, the Proposed Action is not expected to result in degradation of understory conditions that provide forage and cover resources for grouse. These allotments are meeting the desired habitat conditions for greater sage-grouse and the proposed grazing system would not be expected to detract from meeting these conditions.

To ensure greater sage-grouse habitat objectives are being met, BLM would continue to monitor to determine habitat suitability. If it is determined that habitat suitability is on a downward trend and grazing is the causal factor, the BLM would coordinate with the permittee to discuss changes to the grazing schedule to be more compatible with sage-grouse habitat objectives. Changes in the grazing schedule may be analyzed in a new NEPA document, if outside the scope of this document.

Alternative B (No Action) – Direct, Indirect, and Cumulative Effects

Under this alternative, livestock would continue grazing as has been done historically. The three allotments were found to be meeting land health assessments and providing suitable and productive habitat under the current grazing system. This trend is expected to continue under the No Action Alternative.

Alternative C (No Grazing) – Direct, Indirect, and Cumulative Effects

Removal of livestock from the allotment would allow for complete herbaceous expression throughout the entire growing season. This may benefit sage-grouse and other wildlife species; however, habitat is currently in suitable condition with livestock grazing. Forage use by big game species would still occur with this alternative.

5.4. Cultural Resources

5.4.1. How would the proposed grazing permit affect sites of Native American and Euro-American origin within the project area?

Affected Environment:

The National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their federal undertakings on cultural resources that are eligible for inclusion in the National Register of Historic Places (NRHP). Federal undertakings are those that are funded or permitted by the federal agency. The proposed grazing renewal and change to horse grazing from cattle and sheep is a federal undertaking because BLM will issue a grazing permit. In Colorado, the requirements of NHPA are implemented under the terms of the Protocol Agreement (Protocol) between the Bureau of Land Management and the State Historic Preservation Officer (SHPO) (US BLM 2014).

NHPA directs that agencies consider both potential direct and indirect effects of their federal undertakings on eligible sites. Examples of direct effects include physical damage or destruction of sites from construction or other ground-disturbing activities. Indirect effects can include, for example, an effect to the viewshed afforded from an eligible site that is in part important for its setting.

Following NHPA, BLM-LSFO reviewed existing cultural resource records to make an inventory of eligible and potentially eligible sites involved in the undertaking and determined the effect of the proposed undertaking on any eligible sites involved. The review of cultural resource records considered sites within allotments that could be directly affected by the ground trampling activities of horses as well as possible indirect effects to sites within and adjacent to the grazing allotments.

<u>Sugarloaf Peak Allotment</u>

It is estimated that two percent of the land in the allotment has been surveyed for cultural resources. The surveys were conducted prior to ground surface disturbance from planned coal mining, seismic exploration for oil and gas, construction of a livestock fence, and reclamation work planned for areas affected by uranium mining.

Though little survey work has been done, a noteworthy large number of Native American sites of late prehistoric, protohistoric, or historic times have been recorded in the allotment. These sites include sites that have juniper trees in which wickiups presumably once were erected for temporary shelter. These sites are briefly described below.

5MF2529. The site is an open camp that needs more information to determine eligibility to the NRHP (a so-called "needs data" site). Arrow points that conform to the Desert Side-Notched and Cottonwood Triangular types were collected from the site, as was a blue glass trade bead. The site is thought to be most likely affiliated with the Ute or Shoshone tribes who are known to inhabit northwest Colorado at the time of contact with Euro-Americans.

5MF2528. This "needs data" site is classified as an "open architectural" site because of the presence of two juniper trees that likely mark where wickiups were once set up in the trees. Manmade clusters of juniper mats at the base of the trees strongly suggest that wickiups were once present. The site area has been subjected to pole cutting by ranchers to make barbed wire fences, so the lack of poles at the trees may be the result of later activity by Euro-Americans. The site is in the vicinity of 5MF2529.

5MF2913. The site is also classified as open architectural because of the presence of a juniper tree that is believed to have had a wickiup set up in the tree. Unfortunately, illegal excavation of the former location of the wickiup occurred with artifacts and bone of bison and a deer-sized animal present on the low back-dirt piles adjacent to a depression where the digging occurred. A Desert Side-Notched point was observed on one of the back-dirt piles, adding support to the thinking that a wickiup was formerly set up in the juniper. Another Desert Side-Notched point and a Cottonwood Triangular point observed elsewhere on the site confirm the site is affiliated with a relatively recent Native American time period when the Utes, Shoshone, and their predecessors lived in northwest Colorado.

Interestingly, a book by a local historian who homesteaded on Lay Creek, indicates that the Ute Indians considered the Wet Gulch a favored area for hunting deer (Fitzpatrick 2000:135). Fitzpatrick's comment suggests a reason why the little survey work that has been completed in the area has resulted in the recording of a relatively large number of late Native American sites.

<u>Sugarloaf Butte Allotment</u>
It is estimated that only one percent of land within the allotment has been surveyed for cultural resources. The survey work occurred prior to planned seismic exploration for oil and gas and fence construction.

5MF2912. A kill site considered to be eligible to the NRHP was recorded in a drainage bottom. The site is of unknown cultural affiliation, but its location in the vicinity of the sites of Ute or Shoshone affiliation suggest it might also date to a relatively recent Native American time period.

<u>Lower Bord Gulch Allotment</u>
Three open camps of Native American origin have been recorded in the allotment and have been recommended to be eligible by the recording archaeologist. Included are 5MF6401, 5MF6402, and 5MF6403.

Euro-American sites are also recorded in the allotment, but are considered to be not eligible to the NRHP. Included are examples of a homestead (5MF1064) and a coal mine (5MF6532). The

latter is a so-called “wagon mine” that was worked on a small-scale, perhaps to supply the towns of Maybell and Lay, as well as local ranches.

Alternative A (Proposed Action) and Alternative B (No Action) – Direct and Indirect Effects

Proposed Action

It is expected that grazing a total of 33 horses on BLM lands within the allotments will not pose an adverse direct effect on recorded eligible or “needs data” sites in the allotments. An apparent high density of late Native American sites may exist in the Wet Gulch area. But due to subsequent Euro-American activity, no wickiups remain standing on these sites.

If time is available, however, it would be advisable for an LSFO archaeologist to visit the late Native sites in the allotments to assess whether trampling by horses is adversely affecting the sites. Should LSFO have the capability to do proactive survey work in the future, additional survey in the Wet Gulch area would be warranted to locate other late Native sites and assess whether direct impacts from horse grazing are occurring.

The Proposed Action will not have indirect effects (e.g. visual impacts) to eligible sites of Native American or Euro-American origin within the grazing allotments.

No Action

If grazing of the allotment by cattle and sheep were to continue, it is expected that such a No Action Alternative would not adversely affect eligible Native American sites.

Alternative C (No Grazing) – Direct and Indirect Effects

A No Grazing Alternative would have no direct or indirect effects on eligible cultural sites in the allotments.

6. SUPPORTING INFORMATION

6.1. List of Preparers

Name	Title	Area of Responsibility	Date Signed
Eric Scherff	Hydrologist	Air Quality, Soil Resources, Surface and Ground Water Quality, Floodplains, Hydrology, Prime and Unique Farmlands, Wetlands and Riparian Zones	3/29/24
Christian Rhyne	Rangeland Mangaement	Recreation and Visual Resources, Lands with Wilderness	7/9/24

Name	Title	Area of Responsibility	Date Signed
	Specialist, Project Lead	Characteristics, Recreation, Access and Transportation, Scenic Byways	
Foster Beckett	Mining Engineer	Geology and Minerals; Paleontology	3/18/2024
Desa Ausmus	Wildlife Biologist	Special Status Animal Species, Migratory Birds, Aquatic and Terrestrial Wildlife	3/15/2023
Hunter Seim	Assistant Field Manager	Special Status Plant Species	7/9/2024
Christina Rhyne	Rangeland Management Specialist	Invasive, Non-Native Species,	1/30/2024
Christina Rhyne	Rangeland Management Specialist	Wild Horses	1/30/2024
Brian Naze	Archaeologist	Cultural Resources, Native American Concerns	6/21/2024
Christina Rhyne	Rangeland Management Specialish, Project Lead	Fire Management	7/9/2024
Christina Rhyne	Rangeland Management Specialist	Livestock Grazing	1/30/2024
Janell Corey	Realty Specialist	Realty Authorizations, Socioeconomics, and Environmental Justice	2/12/2024
Christina Rhyne	Project Lead	Hazardous or Solid Wastes	1/30/2024
Pete Doan	Planning & Environmental Coordinator	NEPA Compliance	7/10/2024

6.2. Tribes, Individuals, Organizations, or Agencies Consulted

NHPA charges federal agencies with consulting with Native Americans as necessary regarding the effect of federal undertakings on areas or sites that may be of cultural or religious importance to native people to ensure that tribal values are considered to the extent feasible. In historic times, the Little Snake field area was inhabited by the Utes and the Shoshone.

Lacking a formal agreement outlining a consultation process, LSFO policy is to consult with relevant tribes when an undertaking is known to be in or near an area of concern to the historic tribes or when an undertaking involves types of sites that experience has shown are usually of concern to native peoples. Such sites include burials, rock art sites, wickiups, stone circle sites, possible vision quest sites, possible eagle trap sites, etc.

No areas of Native American cultural or religious concern are known within the grazing allotments, nor are sites of the kind that experience has shown to be usually of Tribal concern are known in the allotments. The Tribes have not identified any areas or sites of concern within the allotments. As described above, Native American sites where wickiups may have once existed are recorded within the allotments, but such structures are no longer present. Based on available information, it is reasoned that proposed approval of grazing of 33 horses on the BLM portions of the allotments will not impact areas or sites of concern to Native Americans.

6.3. References

Fitzpatrick, Val. 2000. Red Twilight: The Last Free Days of the Ute Indians. Yellow Cat Publishing. Yellow Cat Flats, Utah.

U.S. Bureau of Land Management. 2011. Little Snake Field Office Resource Management Plan. October 2011. Little Snake Field Office, Craig, Colorado.

U.S. Bureau of Land Management. 2014. State Protocol Agreement Between the Colorado State Director (SD) of the Bureau of Land Management (BLM) and the Colorado State Historic Preservation Officer (SHPO) Regarding the Manner in Which the BLM Meet its Responsibilities Under the National Historic Preservation Act (NHPA) and the 2012 National Programmatic Agreement (National PA) Among the BLM, the Advisory Council on Historic Preservation (ACHP), and the National Conference of State Historic Preservation Officers (NCSHPO). Document on file at Little Snake Field Office, Craig, Colorado.

U.S. Bureau of Land Management. 2015. Northwest Colorado Greater Sage-grouse Resource Management Plan Amendment. September 2015. Northwest District Office, Grand Junction, Colorado.

U.S. Census Bureau. 2021. U.S. Census QuickFacts for Routt County, Colorado. Accessed at https://www.census.gov/quickfacts/fact/table/routtcountycolorado,CO/PST045219 on 5/12/2022.

National Oceanic and Atmospheric Administration. 2023. U.S. Drought Monitor. National Integrated Drought Information System. Accessed on 6/28/2023 at: https://www.drought.gov/states/colorado/county/Moffat

7. CHAPTER 4 – PUBLIC LAND HEALTH STANDARDS

7.1. INTRODUCTION

The Lower Bord Gulch Allotment #04057, Sugarloaf Peak Allotment #04055 and Sugarloaf Butte Allotment #04433 were assessed for compliance with the Colorado Standards of Public Land Health by an interdisciplinary team consisting of a rangeland management specialist and a wildlife biologist on September 12, 2023 and August 28, 2022. All applicable standards were met.

7.2. COLORADO PUBLIC LAND HEALTH STANDARDS

In January 1997, the Colorado State Office of the BLM approved the Standards for Public Land Health and amended all RMPs in the State. Standards describe the conditions needed to sustain public land health and apply to all uses of public lands.

On September 12, 2023, the Lower Bord Gulch Allotment #04057 and Sugarloaf Peak Allotment #04055 were visited by a Rangeland Management Specialist and a Wildlife Biologist to determine whether the Colorado Standards for Public Land Health were being met. On August 28, 2022 the Sugarloaf Butte Allotment #04433 was assessed. The findings are described below.

7.2.1 Standard 1 - Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes.

Finding of most recent assessment: Upland soils exhibit no signs of accelerated erosion. There is very little evidence of movement of soil particles, litter is accumulating in place, there is no evidence of pedestalling, rills, or flow patterns, and vegetation is of sufficient abundance with adequate cover to hold soils in place.

Proposed Action: This alternative would meet this standard.

No Action Alternative: Since this standard is currently being met, this alternative would meet this standard.

No Grazing Alternative: Removing livestock grazing would have no detrimental impacts to the soil standard. Under this alternative, the standard would be met.

7.2.2 Standard 2 - Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods.

Finding of most recent assessment: The two riparian sites on these allotments were assessed by BLM staff and found to be in proper functioning condition.

Proposed Action: Permitting livestock grazing on this allotment as proposed would not result in measurable changes to the health of riparian systems and this standard should continue to be met.

No Action Alternative: Since this standard is currently being met, this alternative would also meet this standard.

No Grazing Alternative: Removing livestock grazing would have no detrimental impacts to the riparian systems standard. Under this alternative, the standard would be met.

7.2.3 Standard 3 - Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential.

Finding of most recent assessment: These allotments haves appropriate key species present with high overall plant diversity. Woody and perennial species composition is as expected for the sites. Density and production of vegetation are adequate to provide resilience from human activities. The general absence of invasive or noxious weeds is also a benefit to the vegetation community. Habitat for wildlife species is healthy and productive.

This standard is being met.

Proposed Action: With the terms and conditions included in this alternative, this standard would continue to be met.

No Action Alternative: Since this standard is currently met under this alternative, continuing current grazing management would not preclude this standard from continuing to be met.

No Grazing Alternative: Removing livestock grazing would not preclude this standard from being met.

7.2.4 Standard 4 - Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Finding of most recent assessment: The allotments provide habitat for greater sage-grouse and Brewer's sparrow. Sagebrush stands on the allotments are in good condition, providing suitable and productive habitat for these species. This standard is currently being met.

Proposed Action: The Proposed Action is not expected to preclude this standard from being met.

No Action Alternative: The allotments would continue to meet this standard under the No Action Alternative.

No Grazing Alternative: The allotments would continue to meet this standard under the No Grazing Alternative.

7.2.5 Standard 5 - The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado.

Finding of most recent assessment: This standard is being met for this allotment. As of 2022, no water body located on or influenced by BLM lands is on the Colorado Department of Public Health and Environment's Section 303(d) list for impairment.

Proposed Action: The proposed action of grazing livestock at the proposed intensity would not result in different impacts to water quality than what exists. This standard would continue to be met under this alternative.

No Action Alternative: Since this standard is currently met under this alternative, continuing current grazing management would not preclude this standard from continuing to be met.

No Grazing Alternative: Removing livestock grazing would not preclude this standard from being met.

APPENDIX A. FIGURES

Figure 1. Lower Bord Gulch #04057, Sugarloaf Peak #04055, Sugarloaf Butte #04433 - Map

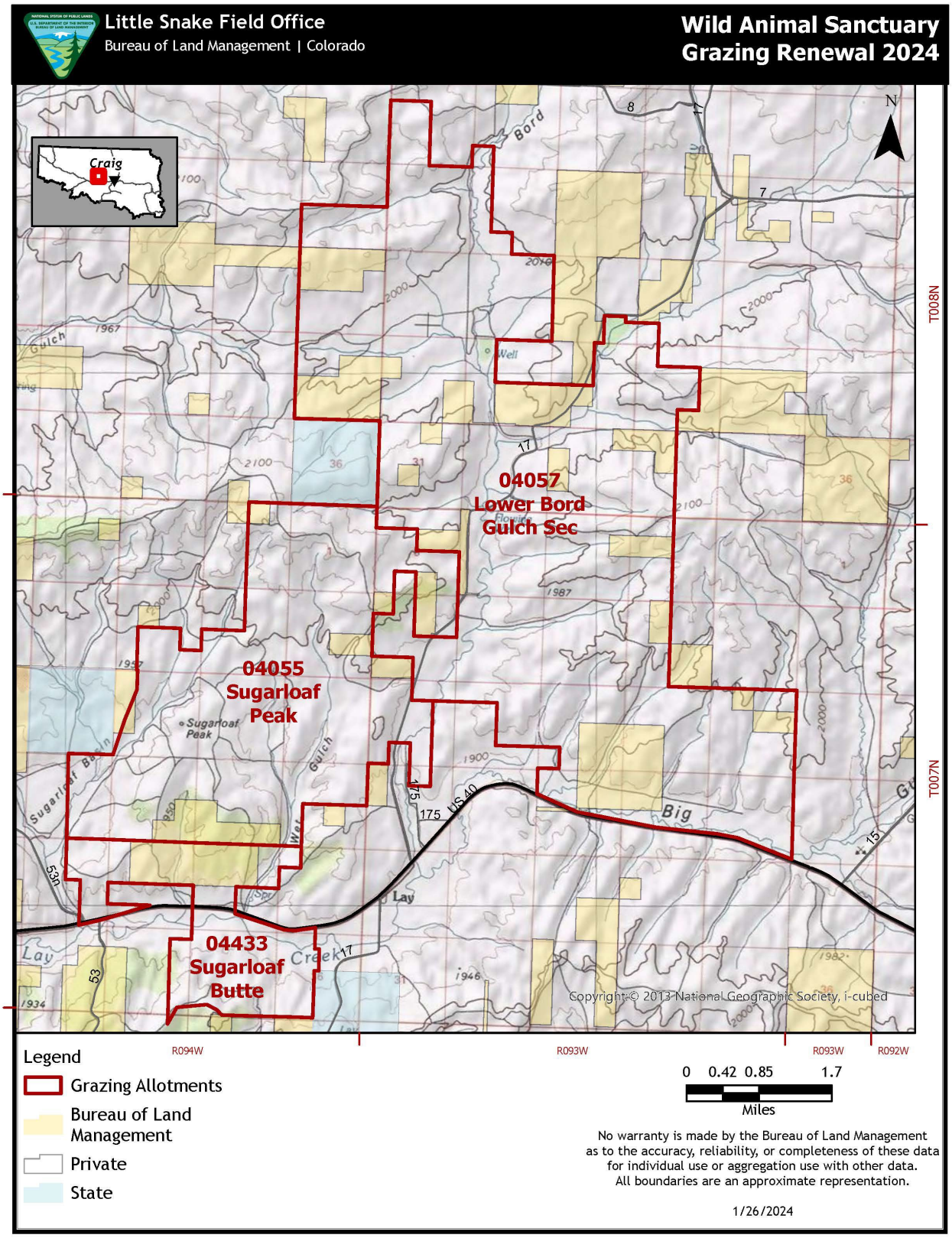
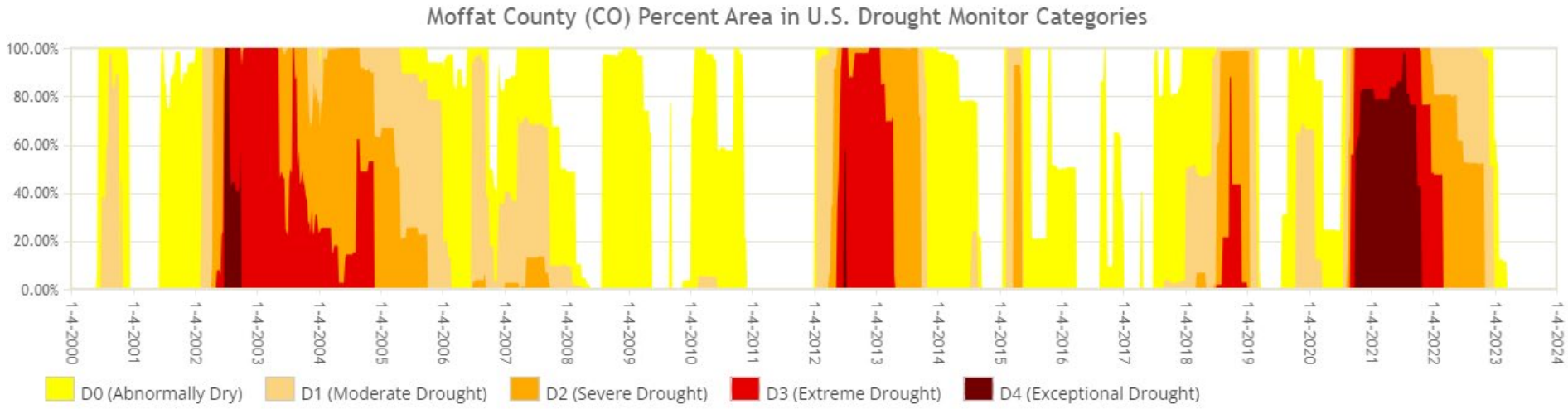


Figure 2. U.S. Drought Monitor statistics for Moffat County

2000 - Present (Weekly)

The U.S. Drought Monitor (USDM) is a national map released every Thursday, showing parts of the U.S. that are in drought. The USDM relies on drought experts to synthesize the best available data and work with local observers to interpret the information. The USDM also incorporates ground truthing and information about how drought is affecting people, via a network of more than 450 observers across the country, including state climatologists, National Weather Service staff, Extension agents, and hydrologists. Learn more.



APPENDIX B. STANDARD AND COMMON TERMS AND CONDITIONS

Standard Terms and Conditions

1) Grazing permit or lease terms and conditions and the fees charged for grazing use are established in accordance with the provisions of the grazing regulations now or hereafter approved by the Secretary of the Interior.

2) They are subject to cancellation, in whole or in part, at any time because of:
   a. Noncompliance by the permittee/lessee with rules and regulations;
   b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based;
   c. A transfer of grazing preference by the permittee/lessee to another party;
   d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described;
   e. Repeated willful unauthorized grazing use;
   f. Loss of qualifications to hold a permit or lease.

3) They are subject to the terms and conditions of allotment management plans if such plans have been prepared. Allotment management plans MUST be incorporated in permits and leases when completed.

4) Those holding permits or leases MUST own or control and be responsible for the management of livestock authorized to graze.

5) The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze.

6) The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.

7) Grazing permits or leases are subject to the nondiscrimination clauses set forth in Executive Order 11246 of September 24, 1964, as amended. A copy of this order may be obtained from the authorized officer.

8) Livestock grazing use that is different from that authorized by a permit or lease MUST be applied for prior to the grazing period and MUST be filed with and approved by the authorized officer before grazing use can be made.

9) Billing notices are issued which specify fees due. Billing notices, when paid, become a part of the grazing permit or lease. Grazing use cannot be authorized during any period of delinquency in the payment of amounts due, including settlement for unauthorized use.

10) Grazing fee payments are due on the date specified on the billing notice and MUST be paid in full within 15 days of the due date, except as otherwise provided in the grazing permit or lease. If payment is not made within that time frame, a late fee (the greater of $25 or 10 percent of the amount owed but not more than $250) will be assessed.

11) No member of, or Delegate to, Congress or Resident Commissioner, after his/her election of appointment, or either before or after he/she has qualified, and during his/her continuance in office, and no officer, agent, or employee of the Department of Interior, other than members of Advisory committees appointed in accordance with the Federal Advisory Committee Act (5 U.S.C. App. 1) and Sections 309 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) shall be admitted to any share or part in a permit or lease, or derive any benefit to arise therefrom; and the provision of Section 3741 Revised Statute (41 U.S.C. 22), 18 U.S.C. Sections 431-433, and 43 CFR Part 7, enter into and form a part of a grazing permit or lease, so far as the same may be applicable.

Common Terms and Conditions

A) Grazing use will not be authorized in excess of the amount of specified grazing use (AUM number) for each allotment. Numbers of livestock annually authorized in the allotment(s) may be more or less than the number listed on the permit/lease within the grazing use periods as long as the amount of specified grazing use is not exceeded.

B) Unless there is a specific term and condition addressing utilization, the intensity of grazing use will insure that no more than 50% of the key grass species and 40% of the key browse species current years growth, by weight, is utilized at the end of the grazing season for winter allotments and the end of the growing season for allotments used during the growing season. Application of this term needs to recognize recurring livestock management that includes opportunity for regrowth, opportunity for spring growth prior to grazing, or growing season deferment.

C) Failure to maintain range improvements to BLM standards in accordance with signed cooperative agreements and/or range improvement permits may result in the suspension of the annual grazing authorization, cancellation of the cooperative agreement or range improvement permit, and/or the eventual cancellation of this permit/lease.

D) Storing or feeding supplemental forage on public lands other than salt or minerals must have prior approval. Forage to be fed or stored on public lands must be certified noxious weed-free. Salt and/or other mineral supplements shall be placed at least one-quarter mile from water sources or in such a manner as to promote even livestock distribution in the allotment or pasture.

E) Pursuant to 43 CFR 10.4(g), the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

The operator is responsible for informing all persons who are associated with the allotment operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any allotment activities or grazing activities, the operator is to immediately stop activities in the immediate vicinity and immediately contact the authorized officer. Within five working days the authorized officer will inform the operator as to:

-whether the materials appear eligible for the National Register of Historic Places;
-the mitigation measures the operator will likely have to undertake before the identified area can be used for grazing activities again.

If paleontological materials (fossils) are uncovered during allotment activities, the operator is to immediately stop activities that might further disturb such materials and contact the authorized officer. The operator and the authorized officer will consult and determine the best options for avoiding or mitigating paleontological site damage.

F) No hazardous materials/hazardous or solid waste/trash shall be disposed of on public lands. If a release does occur, it shall immediately be reported to this office at (970) 826-5000.

G) The permittee/lessee shall provide reasonable administrative access across private and leased lands to the BLM and its agents for the orderly management and protection of public lands.

H) Application of a chemical or release of pathogens or insects on public lands must be approved by the authorized officer.

I) The terms and conditions of this permit/lease may be modified if additional information indicates that revision is necessary to conform with 43 CFR 4180.

APPENDIX C. DROUGHT INDICATORS, TRIGGERS, AND RESPONSES

Indicators, Triggers, and Responses

Drought Indicators

Drought indicators are observations signaling the start or continuation of a drought. The following discussion identifies the indicators that would be used to determine the onset and/or continuation of a drought.

The U.S. Drought Monitor (http://droughtmonitor.unl.edu/) would be consulted to determine if weather conditions indicate drought and to identify affected areas. Site visits to the allotment and within drought-afflicted areas would be used to evaluate the current condition of water resources and determine if water shortages exist.

The U.S. Drought Monitor and the Vegetation Drought Response Index (VegDRI) (http://vegdri.unl.edu/) would be consulted to determine drought afflicted areas and vegetation condition as it pertains to drought stress. Site visits to the allotment within drought-afflicted areas would be used to evaluate the current condition and production of key forage species as described in the associated Ecological Site Descriptions (ESDs) for the area. In instances where key species referenced in the ESD are absent, key species would be identified using site-specific and/or existing monitoring data. Evaluations would be used to determine if plants are exhibiting signs of drought stress and if forage shortages exist. Signs of drought stress include reduced shoot and leaf growth, reduction in seed head development, induced senescence (i.e., premature aging), and plant death.

Drought Triggers

Drought response triggers are thresholds associated with forage and water resources that indicate the need for a site-specific drought response. Triggers would be used separately or in combination to activate Drought Response Actions (DRAs). These triggers have been placed into two categories: water and forage. The following is a list of the triggers for both categories:

1. **Water -** This trigger is based on the presence or absence of available water. Field visits would be conducted in drought-afflicted areas to determine if there are adequate water sources (natural and/or developed) to provide for the management and/or distribution of wildlife and livestock while maintaining riparian area functionality or the health of upland areas surrounding developed water sources. Since there are no developed water sources on this allotment, the availability of water on the adjacent private lands that are used in conjunction with this allotment would be assessed.

   Water would be classified as “available” or “unavailable” within areas affected by drought. “Available” is defined as an amount of water sufficient to provide a safe and reliable source of drinking water for wildlife and livestock while maintaining resource values.

"Unavailable" is defined as an absence of water or an amount of water that is insufficient to provide a safe and reliable source of drinking water for wildlife and livestock while maintaining resource values.

2. **Forage -** To survive, perennial plants must accumulate both above ground (shoot growth) and below ground (root growth) biomass through the process of photosynthesis, transpiration, and respiration. A lack of available soil moisture usually reduces the length of the growing season. A shorter growing season directly impacts above and below ground production and ultimately forage quantity. The degree to which drought impairs the range's potential for future forage production depends on the intensity, frequency, and timing of grazing. Drought afflicted rangelands are unable to support pre-drought stocking levels. Excessive utilization during drought can negatively impact plant health and impair the ability to meet or make significant progress towards fulfillment of the standards and guidelines of rangeland health. Permitted livestock grazing levels should be conservative so that grazing plans and grazing use levels can be sustained during periods of drought.

   The following drought response triggers associated with forage are intended to ensure proper utilization levels of upland and riparian key species, as described in the ESD associated with the site. In instances where key species referenced in the ESD are absent, key species would be identified using site-specific and/or past monitoring data. Appropriate utilization levels provide adequate residual matter for the maintenance of plant health, especially during a drought. The triggers have been organized into three categories; utilization and stubble height triggers by vegetation community, livestock distribution, and plant production/drought stress.

   Utilization and Stubble Height

   Utilization triggers were developed using the utilization guidelines proved by Holechek (1988). The guidelines provide a range of use associated with rangeland condition. For the purpose of grazing management during times of drought, the BLM has chosen to limit utilization of key species to the lower utilization level. The lower utilization levels are consistent with those suggested for ranges in poor condition. These were chosen due to the reduced vigor and production of range forage plants resulting from drought. The following utilization levels would function as drought response triggers within each respective vegetation community and would trigger the implementation of DRAs. Stubble height triggers were developed to ensure adequate residual matter remains to maintain riparian plant communities. Generally, stubble heights of four to six inches provide effective stream bank protection, prevent sedimentation, and maintain or improve plant communities. Key species would be identified using the ESD for a specific area. In instances where key species referenced in the ESD are absent key species would be identified using site-specific and/or existing monitoring data.

   - 25 % utilization of key species. -**Sagebrush Grassland**

   - 30% Utilization of key species. -**Riparian Zones**

- Four inch stubble height of key riparian species.

Plant Production and/or Drought Stress

The following plant production and/or drought stress indicators would trigger DRAs:

- Drought-induced senescence or reduced production of key upland and/or riparian species which results in an insufficient quantity of forage for wildlife and livestock;
- Drought-induced senescence of key riparian herbaceous species which results in insufficient plant growth/height to provide for stubble heights equal to or greater than four inches within riparian areas; and
- Noticeable signs of drought stress that impede the ability of key species to complete their life cycle (e.g., drought induced senescence, reduced seed head development, etc.).

Drought Responses

The following DRAs would be implemented either separately, or in combination, upon reaching the criteria described under the drought response triggers section. These have been separated due to the differing nature and capabilities for management of livestock and wild horses and burros. Drought response actions would be selected based on site-specific information. In areas where livestock and wild horse and burro use overlaps, both livestock and wild horse and burro DRAs would be implemented concurrently.

DRAs would be selected on a case-by-case basis using site-specific monitoring data. The following process would be used for DRA selection:

Step 1: *Conduct field visits to "drought-afflicted" areas to assess drought response triggers.* Field visits would assess water and forage availability at predetermined sites.

Step 2: *Pursuant to 43 CFR §4110.3-3(b), consult with, or make a reasonable attempt to consult with, affected permittees or lessees to determine appropriate DRA(s) to alleviate drought impacts.* DRAs would be selected using site-specific monitoring data and chosen on case-by-case basis suited to site-specific conditions. More than one DRA could be selected depending on conditions. Efforts should be made to select DRAs that could be implemented in a subsequent fashion to respond to changes in drought conditions.

Step 3: *Implement DRAs in selected order.* Order would be determined based on site-specific monitoring data.

Step 4: *Resort to partial or full closure of an allotment.* Partial or full closure would be required on an allotment if: 1) a permittee or lessee fails to voluntarily apply to implement appropriate DRA(s) after "a reasonable attempt" (43 CFR 4.110.3-3(b)) has been made to consult with that permittee or lessee, or 2) all feasible livestock DRAs have been exhausted and immediate protection of resources on the allotment is required.

The following is a list of DRAs that would be used either separately, or in combination to reduce the impacts of authorized livestock grazing on natural resources during drought.

- Temporary Complete Closure of the Allotment

  If it is determined that drought conditions (i.e., lack of forage and/or water, poor condition, and/or critical areas that provide forage and/or water for wildlife) exist over the entire allotment and all other livestock DRA options have been exhausted or deemed impractical, complete closure could occur (43 CFR 4710.5). Closure would be in effect for the duration of the drought plus one growing season following the cessation of the drought to allow for recovery. The U.S. Drought Monitor and Vegetation Drought Response Index would be consulted to determine the cessation of the drought. Written notice signed by the AO would be used to reopen the allotment to livestock grazing.

- Temporary Partial Reduction in Animal Unit Months (AUMs)

  During drought, a reduction in livestock numbers could be necessary to ensure that adequate forage is available to meet wildlife and livestock requirements. Reduced livestock grazing would prevent overutilization of key forage species and prevent further adverse impacts to rangeland resources that are already affected by drought.

- Temporary Change in Season of Use

  A change in the season of use could reduce livestock grazing-related impacts during drought. The following modifications could be used either separately or in combination: Changing the season of use to a time following the critical growth period (actual dates would vary with vegetation community type) of key forage species (ESDs correlated to specific locations would be consulted to determine key species. In instances where key species referenced in the ESD are absent, key species would be identified using site-specific and/or past monitoring data).

  - This would allow plants to utilize available soil moisture and any additional moisture received during the critical growth period. Plants would be able to complete their life cycle thus allowing for seed dissemination and root growth and replacement. Plants could then be grazed after sufficient growth or dormancy occurs. Repeated grazing during the critical growth period does not allow plants to regrow before soil moisture is depleted; therefore, plants may not have adequate resource reserves to survive winter dormancy.

  - Defer livestock grazing in riparian areas during the hot season (approximately July 1 through September 30) to avoid the degradation of riparian areas during drought.

- Temporary Reduced Grazing Duration

  Reducing grazing duration would increase a plant's ability to utilize available resources to regrow foliage, store carbohydrates reserves, and maintain vigor. Plants are unable to regrow if grazed repeatedly especially during times of limited soil moisture. Periods of deferment would be varied according to the rate of growth. Range plants initiate growth from meristems (i.e., growing points), once meristems are removed, plants must grow from basal buds which requires much more of the plants energy than regrowth from meristems. Plants that are continually forced to regrow from buds may reduce or even

eliminate the production of new buds, which may reduce production in subsequent years. During stress periods such as drought, growth slows and plants should be rested longer. Reducing the duration of grazing would provide plants more time to recover after grazing pressure is removed.