

**United States Department of the Interior
Bureau of Land Management**

**Environmental Assessment
for the Renewal of the Ten Year Grazing Permit on the Sand
Hills #04407 and LU 16 #04532 Allotments**

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CHAPTER 1 - INTRODUCTION

1.1 IDENTIFYING INFORMATION

PROJECT NAME: Renewal of the Ten Year Grazing Permit on the Sand Hills #04407 and LU 16 #04532 Allotments.

CASEFILE/ALLOTMENT NUMBER: 0504600/04407, 04532

1.2 PROJECT LOCATION AND LEGAL DESCRIPTION

LEGAL DESCRIPTION: see Allotment Maps, Attachments 1a and b.

Sand Hills #04407	T7N R96W Secs. 19-23, 25, and 26-35 T6N R96W Secs. 2- 10, 17, and 18 T7N R97W Secs. 25, 26, 35, and 36 T6N R97W Secs. 1 and 12
LU 16 #04532	T9N R94W W ½ Sec. 11 T9N R94W NW ¼ Sec. 14

ALLOTMENT SUMMARY:

Sand Hills #04407	11,093 acres BLM 647 acres State Land Board <u>2,197 acres private</u> 13, 937 acres total
LU 16 #04532	482 acres BLM LU

COUNTY AND GENERAL LOCATION: Both allotments are located in Moffat County, Colorado. The Sand Hills Allotment #04407 is located approximately two miles west of Maybell, Colorado. It is bounded by State Highway 318 along the north boundary and U. S. Highway 40 along the south boundary.

The LU 16 Allotment #04532 is located approximately 5 miles southwesterly of Great Divide, Colorado. It lies just south of Greasewood Gulch and just north of Moffat County Road 6.

LANDSCAPE DESCRIPTION: The Sand Hills Allotment #04407 is characterized by rolling, sandy hills and low ridges interspersed with wide, shallow drainages flowing northerly towards the Yampa River, which lies just beyond the northern boundary of the allotment. Elevations range from approximately 6,400 feet in the southern portion of the allotment to approximately 5,900 feet in the northern portion.

In the late 20th century a series of fires, including the 1988 “I Do” fire, burned approximately 68% of the Sand Hills Allotment. Areas that were once a community dominated by a bitterbrush/big sagebrush plant community are now in a transitory state of semi-grassland. The

burned areas are predominantly grasses and forbs with an increasing amount of pioneering shrubs, particularly green and rubber rabbitbrush. Only a small portion of bitterbrush-dominated community (approximately 3,840 acres) remains.

The LU 16 Allotment #04532 consists of a mostly rolling, hilly landscape. A tributary drainage to Greasewood Gulch bisects much of the allotment. Elevations range from approximately 6,900 feet in the southern portion of the allotment to approximately 6,750 feet in the northern portion.

CLIMATE/PRECIPITATION SUMMARY: Both allotments are located in a semi-arid steppe climate characterized by cold winters and warm summers. Data collected at Maybell between 1958 and 2013 show average annual precipitation of 12.31 inches, with April being the wettest month (1.38) and July being the driest (0.78). Much of the precipitation is in the form of snow, with an average annual snowfall of 61.2 inches. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?co5446>

1.3 BACKGROUND

Records indicate livestock grazing has occurred on the Sand Hills #04407 and LU 16 #04532 Allotments since the late 1950s, though both allotments have likely been grazed by livestock since at least the early 20th century. Both allotments began to be grazed by the same permittee beginning in 1998 when the permittee on the Sand Hills Allotment purchased the base property for the LU 16 Allotment. They continued to be authorized under two separate permits until the current permittee purchased the base property for both allotments in 2012. At that time, the grazing preference for both allotments was placed on a single permit, #0504600, for simplicity of administration. Even though both of the previous permits had separate expiration dates, the new permit was reissued with an expiration date that was the earlier of the two.

Both allotments have typically been managed independently of each other. The LU 16 Allotment functions as one pasture of multiple pastures on private land through which livestock are rotated during the grazing season. The Sand Hills Allotment is grazed in a two-pasture, deferred rotation that utilizes the manipulation of well-fed water sources and active herding to rotate cattle in the spring as opposed to using fence. To date, the applicant has grazed the allotments for one grazing season and is requesting that the permit be renewed with the existing terms and conditions.

1.4 PURPOSE AND NEED

BLM permit #0504600, which authorizes livestock grazing on the Sand Hills #04407 and LU 16 #04532 Allotments expired on February 28, 2013. It was extended for ten years, expiring February 28, 2023 under Section 415, H.R. 2055 (Consolidated Appropriation Act, 2012) with the same terms and conditions as the expiring permit until BLM could complete the processing of the permit renewal. This permit 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 action is needed to respond to the application for renewal of the expired permit by the grazing permittee and to replace the current appropriation act permit.

The following Environmental Assessment will analyze the impacts of livestock grazing on public land managed by the BLM. The analysis will recommend terms and conditions to the permit which improve or maintain public land health. The proposed action and alternatives will be assessed for meeting land health standards.

In order to graze livestock on public land, the livestock producer (permittee) must hold a grazing permit. The grazing permittee has a preference right to receive the permit 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.

1.4.1 Decision to be Made

BLM is to decide whether or not to reissue the grazing permit and under what terms it may be reissued.

1.6 PLAN CONFORMANCE REVIEW

The proposed action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: Little Snake Record of Decision and Resource Management Plan (RMP)

Date Approved: October 2011

Decision Language: The Proposed Action and all alternatives are consistent with the Little Snake Record of Decision and Resource Management Plan, Livestock Grazing Management goals to manage resources, vegetation, and watersheds to sustain a variety of uses, including livestock grazing, and to maintain the long-term health of the rangelands; provide for efficient management of livestock grazing allotments; and contribute to the stability and sustainability of the livestock industry.

Section/Page: 2.14 Livestock Grazing/RMP-41

1.7 PUBLIC PARTICIPATION

1.7.1 Scoping: NEPA regulations (40 CFR §1500-1508) require that the BLM use a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to allow public participation to identify issues, concerns, and potential impacts that require detailed analysis.

External Scoping Summary: The action in this EA is included in the NEPA log posted on the LSFO web site: http://www.blm.gov/co/st/en/BLM_Information/nepa/lsfo.html. No comments were received.

The Little Snake Field Office sent out a Notice of Public Scoping to all affected interests on December 16, 2011 for the Sand Hills Allotment #04407 for its 2013 expiration and Notice was sent to all affected interests on December 22, 2006 for the LU 16 Allotment #04532 to determine the level of public interest, concern, and resource conditions on the grazing authorizations that were due for renewal in fiscal years 2013 and 2008 respectively. A Notice of Public Scoping was posted on the Internet, at the Colorado BLM Home Page, asking for public input on grazing permit and lease renewals. Individual letters were sent to the affected permittee/lessee informing them that their permit was due for renewal and requesting any information they wanted included or taken into consideration during the renewal process. The issuance of a grazing permit is being carefully analyzed within the scope of the specific action being taken, resources issues or concerns, and public input received.

Persons/Agencies Consulted: Stuart Olsen, Virgil Heed

Internal Scoping Summary: The proposed action and alternatives were presented to the LSFO NEPA interdisciplinary team at the weekly priorities meeting on June 3, 2013. No issues were identified by the team at that time.

Issues Identified: No issues were identified during public scoping.

CHAPTER 2 - PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The purpose of this chapter is to provide information on the Proposed Action and Alternatives. Alternatives considered but not analyzed in detail are also discussed.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 Proposed Action

Renew the grazing permit on the Sand Hills #04407 and LU 16 #04532 Allotments for ten years, expiring February 28, 2024. Grazing use on both allotments include periodic growing season deferment, i.e. the delaying of grazing during the critical spring growth period until plant maturity and seed-set of forage grasses. The permit would be renewed with the *same terms and conditions* as the expiring permit which are as follows:

Allotment Name & Number	Livestock Number & Kind	Dates		%PL	AUMs
		Begin	End		
Sand Hills #04407	285 Cattle	04/21	11/19	82	1637
LU 16 #04532	87 Cattle	05/20	06/10	100	63

The above permit is subject to the following Special Terms and Conditions:

The permittee will submit BLM Form 4130-5, Actual Grazing Use Report, by mail or in person to the LSFO within 15 days of the end of the permitted season of use each year. This submission will include numbers of livestock and dates of turn-out and removal.

Sand Hills Allotment:

Livestock will be grazed east of Thornburgh Gulch one spring growing season and west of Thornburgh Gulch the next spring growing season by manipulation of water sources and active herding. After seed set occurs, livestock may access the entire allotment.

LU 16 Allotment:

During even years, the specified grazing use is to be made between May 20 and June 10. For flexibility, the permittee may move the beginning of the 21 day use period up to 7 days sooner or later than May 20. During odd years, the specified grazing use is to be made in a 21 day use period between July 15 and September 30. The permittee shall apply prior to turnout for the time of use desired.

The above permit would be subject to the Standard and Common Terms and Conditions, see Attachment 2.

2.2.3 No Grazing Alternative

The grazing permit would not be renewed and the existing permit would be cancelled. The existing grazing preference attachment for the Sand Hills #04407 and LU 16 #04532 Allotments to offered base property would be severed. Both allotments would be closed to livestock grazing.

CHAPTER 3 – AFFECTED ENVIRONMENT AND EFFECTS

3.1 INTRODUCTION

Affected Resources:

The CEQ Regulations state that NEPA documents “must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail” (40 CFR 1500.1(b)). While many issues may arise during scoping, not all of the issues raised warrant analysis in an environmental assessment (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 direct, indirect, or cumulative impact, or where analysis is necessary to determine the significance of the impacts. Table 1 lists the resources considered and the determination as to whether they require additional analysis.

Table 1. Resources and Determination of Need for Further Analysis

Determination ¹	Resource	Resource Issue/Rationale for Determination
Physical Resources		
NI	Air Quality	Activities associated with grazing that may affect air quality, namely dust and exhaust from ranch operation vehicles as well as dust from livestock hoof action, fall below EPA emission standards for the six criteria pollutants of concern (sulfur dioxide, nitrogen oxide, ground-level ozone, carbon monoxide, particulate matter [both PM2.5 and PM10], and lead). Furthermore, ranch operation and livestock activities are not a significant source of these pollutant emissions that do occur in Moffat County. Impacts to air quality caused by either alternative are therefore considered negligible.
NP	Floodplains	There are no FEMA-identified 100-year floodplains present in the allotments considered in this analysis.
NI	Hydrology, Ground	Neither alternative would impact ground water hydrology. There are three water wells supporting livestock water developments on the Sand Hills Allotment, but the intermittent output of these wells at 12 gallons per minute or less is negligible in terms of impact to the aquifer.
PI	Hydrology, Surface	See Chapter 3 for detailed analysis.
NI	Minerals, Fluid	There would be no impact to fluid minerals from either alternative.
NI	Minerals, Solid	There are no solid mineral authorizations within either allotment.
PI	Soils	See Section 3.2.1
NI	Water Quality, Ground	Neither alternative would impact the quality of the aquifer.
PI	Water Quality, Surface	See Section 3.2.2
Biological Resources		
PI	Invasive, Non-native Species	See Section 3.3.1
PI	Migratory Birds	See Section 3.3.2
PI	Special Status Animal Species	See Section 3.3.3
NP	Special Status Plant Species	There are no federally listed threatened, endangered, or BLM sensitive plant species present within either allotment.
PI	Upland Vegetation	See Section 3.3.4
PI	Wetlands and Riparian Zones	See Chapter 3 for detailed analysis.
NP	Wildlife, Aquatic	There are no aquatic wildlife resources located within either allotment.
PI	Wildlife, Terrestrial	See Chapter 3 for detailed analysis.
NP	Wild Horses	Neither allotment lies within a wild horse Herd Management Area.

Determination ¹	Resource	Resource Issue/Rationale for Determination
Heritage Resources and the Human Environment		
PI	Cultural Resources	See Section 3.4.1
NP	Environmental Justice	According to the most recent Census Bureau statistics (2000), there are no minority or low income populations within the LSFO.
PI	Hazardous or Solid Wastes	See Section 3.4.2
NI	Lands with Wilderness Characteristics	Subject to WO-IM 2011-154 and in accordance with BLM policy, some of the proposed project areas fall within areas greater than 5000 acres which may be suitable as lands with wilderness characteristics. The proposed action may impact but not impair wilderness characteristics; however, grazing activities are appropriate and consistent with applicable requirements of law and other resource management considerations, and is approved by the field manager.
PI	Native American Religious Concerns	See Section 3.4.3
NI	Paleontological Resources	Paleontological resources are addressed in the standard discovery stipulation , Common Term and Condition E.
NI	Social and Economic Conditions	There would not be any change to local social or economic conditions from either alternative.
NI	Visual Resources	The grazing allotments are located in a VRM Class III area where moderate change to the characteristic landscape would be allowed as long as the existing characteristics of the landscape are partially retained. For the Sand Hills Allotment, based on seven criteria, the Scenic Quality Rating is B. The Sensitivity Level Rating is Moderate, where maintenance of visual quality has moderate value. The LU 16 has a Scenic Quality Rating is C. The Sensitivity Level Rating is low, where maintenance of visual quality has low value. Both allotments fall within the foreground-middleground zone where management activities and proposed projects may be viewed in more detail.
Resource Uses		
NI	Access and Transportation	Access and Transportation will not be affected by the proposed action or alternatives.
NI	Fire Management	Neither alternative would impact the ability for BLM to manage fuels management or natural or prescribed fire.
NI	Forest Management	There are no forest resources present on either allotment.
PI	Livestock Operations	See Section 3.5.1
NI	Prime and Unique Farmlands	There are soil types designated as farmland of statewide importance within the Sand Hills allotment. Generally, farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. None of these soils are or would become irrigated or otherwise manipulated so as to create conditions favorable to create prime farmland on public lands within the allotments. There are no special status farmlands present in the LU16 allotment.
NI	Realty Authorizations, Land Tenure	Realty Authorizations exist within the project area; however they would not be affected by the proposed action(s). There is no land tenure adjustments currently proposed within the project area.

Determination ¹	Resource	Resource Issue/Rationale for Determination
NI	Recreation	Recreational activities are present but there be no impacts due to the proposed action or alternatives.
Special Designations		
NP	Areas of Critical Environmental Concern	Neither allotment meets the criteria for protection as an ACEC. The Irish Canyon ACEC is not in the vicinity of either allotment and would not be affected by either alternative.
NP	Wild and Scenic Rivers	Neither allotment is located within or in the vicinity of WSRs
NP	Wilderness Study Areas	Neither allotment is located within or in the vicinity of WSAs.

¹ NP = Not present in the area impacted by the Proposed Action or Alternatives. NI = Present, but not affected to a degree that detailed analysis is required. PI = Present with potential for impact analyzed in detail in the EA.

3.2 PHYSICAL RESOURCES

3.2.1 Soils

Affected Environment: Table 1 describes the major soil groups included within the Sand Hills #04406 and LU16 #04532 Allotments. Soils within the allotments are predominantly sand based and are suitable for grazing, forestland, and/or wildlife habitat. The main hazard for soils in these areas is erosion unless close-growing plant cover is maintained.

Table 1. Soil Summary for the Sand Hills and LU16 Allotments

Soil Map Unit (MU) & Soil Name (Acres in Allot.)	Map Unit Setting	Description
LU16 Allotment		
MU 130 Maysprings coarse sandy loam, 3 to 12 % slopes	<u>Elevation:</u> 6,200 to 7,300 feet <u>Mean annual precipitation:</u> 11 to 13” <u>Ecological Site:</u> Rolling Loam	These toeslope soils are well drained with moderate permeability and medium runoff potential. Available water capacity is low and the soil profile is typically 18 to 60 inches deep, composed of coarse sandy loam, sandy clay loam, and course sand.
MU 131 Maysprings-Gretdivid complex, 10 to 20% slopes	<u>Elevation:</u> 6,200 to 7,200 feet <u>Mean annual precipitation:</u> 11 to 13” <u>Ecological Site:</u> Sandyland	These soils are well to somewhat excessively drained with moderate permeability and medium runoff potential. Available water capacity is low and the soil profile is typically 18 to 60 inches deep, composed of loamy course sand, sandy clay loam, and course sand.
Sand Hills Allotment		
MU 86 Gracot-Maybell complex, 5 to 30% slopes	<u>Elevation:</u> 6,000 to 6,800 feet <u>Mean annual precipitation:</u> 11 to 13” <u>Ecological Site:</u> Loamy Breaks/ Sandhills	These hills/breaks soils are well to somewhat excessively drained with rapid permeability and very low runoff potential. Available water capacity is low and the soil profile is typically up to 60” deep, composed mostly of sand, very gravelly loamy sand, and fine sand.

<p>MU 162</p> <p>Rock River sandy loam, 3 to 12% slopes</p>	<p><u>Elevation:</u> 6,200 to 7,200 feet</p> <p><u>Mean annual precipitation:</u> 11 to 13”</p> <p><u>Ecological Site:</u> Rolling Loam</p>	<p>These alluvial fan and hillslope soils are well drained with moderate permeability and medium runoff potential. Available water capacity is moderate and the soil profile is typically up to 60 inches deep, composed mostly of sandy loam and sandy clay loams.</p>
<p>MU 170</p> <p>Ryan Park loamy sand, 3 to 15% slopes</p>	<p><u>Elevation:</u> 5,800 to 6,800 feet</p> <p><u>Mean annual precipitation:</u> 11 to 13”</p> <p><u>Ecological Site:</u> Sandy Foothills</p>	<p>These alluvial fan soils are somewhat excessively drained with moderately rapid permeability and low runoff potential. Available water capacity is moderate and the soil profile is typically up to 60” deep, composed of sandy loam and loamy sand.</p>

Data taken from *Soil Survey of Moffat County Area, Colorado (2004)*

Environmental Consequences, Proposed Action: Soils within both of the allotments are sand and loam based, which are the least susceptible to disturbance and wind/water erosion when frozen or snow covered or when wet or moist (late fall through early spring). The proposed grazing periods range from early spring to late fall, which may not be ideal for mitigating erosion susceptibility during the summer months or during drought unless a healthy vegetative community is maintained.

However, under this alternative, there would be a growing season deferment of grazing every other year on both allotments, during which vegetation would be allowed sufficient time for growth, energy storage, and seed production prior to grazing use. Vegetation in both allotments exhibit vigor and have high cover and an abundance of forbs and perennial grasses with very little bare ground present, which is important for holding soils in place particularly in sandy soils susceptible to wind and water erosion. The relatively short allowable grazing period (~21 days) on the LU16 Allotment, active herding and manipulation of water sources on the Sand Hills Allotment, and the implementation of a growing season deferment every other year on both allotments would maintain sufficient plant cover to both protect the soil surface from wind and water erosion and allow the plant community to continue to produce litter in sufficient amounts to generate litter and sustain appropriate water permeability.

Environmental Consequences, No Grazing Alternative: Removal of livestock from public lands would lead to decreased hoof compaction of soil surfaces, especially in the riparian area on the LU 16 Allotment and adjacent to upland water developments where livestock tend to congregate, particularly during the summer. Over time, the lack of compaction, combined with the annual freeze-thaw cycle, would lead to a decrease in soil bulk density and improved soil moisture conditions, which would facilitate seed germination and root development. Removing livestock would also result in an increase of both plant litter and live vegetative ground cover that would provide more protection from wind and water erosion. Any livestock trails and the resulting erosion would heal over time.

If grazing were to continue on adjacent private or other non-federal lands in the allotment, fences would have to be built by the landowner(s) to prevent trespass onto federally-managed lands. Given the natural tendency of cattle to congregate and trail along fence lines, it is likely that paths and forage depletion would occur along the fences. The resulting decrease in canopy cover

would increase the impact of raindrops on the soil surface, while the expected increase in compaction would increase runoff from both rain and snowmelt. These factors would combine to increase the likelihood of both wind and water erosion in the areas adjacent to fences. This may result in blowouts and gullies which could indirectly impact federal lands through deposition or by the eroded area actually spreading onto federal land.

Environmental Consequences, Cumulative Impacts: Past, present, and reasonably foreseeable actions that affect soils in the Sandhills area of the Yampa River Basin primarily include ranching, some fluid mineral exploration and development, and the infrastructural development necessary to support these two activities. The majority of livestock grazing impacts occur around existing water sources such as streams, springs, troughs, stock ponds, areas providing cover or shade, and along fence lines where livestock tend to trail. The soils within and closely surrounding these areas receive heightened use and may exhibit signs of soil compaction, erosion, and reduced productivity.

Populations of wild ungulates, particularly elk and pronghorn antelope are relatively high on both allotments, especially during the fall and winter. These animals make use of both forage and artificial water sources, resulting in some of the same impacts to soils from concentration and trailing as livestock. Many of these impacts would continue to occur, though in the absence of grazing, the upland water sources would likely be abandoned or removed; the trailing impacts, particularly on steeper slopes, would continue to occur.

Oil and gas activities occur in the area in a limited amount. However, there has been a recent renewal of interest in the area and development may be on the rise. Most of this activity has occurred to date on private lands. Development of subsurface minerals includes the removal of top soil and exposure of subsurface soils. These areas of decreased vegetation and litter cover are generally more susceptible to soil erosion, increased runoff, and infestation by invasive, non-native plant species. Some restoration work has occurred at the pad sites to limit the amount of soil erosion, but bare soil still remains in places. Development on public lands always includes mitigation measures to reduce or eliminate these impacts; however, development on private land may not be as closely monitored or mitigated.

The primary impact to soils from infrastructural development has been disturbance, spread of invasive species, runoff and off-site sedimentation associated with road construction, maintenance, and use. The nature and extent of the impact varies with the type of road, the extent of use, and the level of maintenance. For example, primitive 4WD roads, and ATV trails are naturally surfaced and rarely used or maintained, making them susceptible to potentially severe gullying and rilling, especially on grades. Naturally surfaced and gravel-surfaced roads also occur in the valley. Although the extent of use and level of maintenance varies, these roads typically are used more often and receive a higher level of maintenance than primitive roads and trails. Because these types of roads are often used for fluid mineral activities, most have engineered designs and appropriately spaced culverts to drain runoff. As a consequence, these roads are far less likely to erode, though runoff and off-site sedimentation still occur.

Mitigation: None.

3.2.2 Water Quality, Surface

Affected Environment: There are no perennial surface waters that would be subject to the Clean Water Act present on public lands within either of the allotments. There are no perennial surface waters immediately adjacent to the LU16 Allotment. The Sand Hills Allotment is adjacent to the Yampa River; any surface runoff from this allotment flows primarily into the Yampa River or into small, unnamed ephemeral tributaries of the Yampa River. The Yampa River, from a point below the confluence with Elkhead Creek to the confluence with the Green River, must support the following uses:

- Aquatic Life Warm 1 = Waters that currently are capable of sustaining a wide variety of warm water biota, including sensitive species or could sustain such biota but for correctable water quality conditions.
- Recreation Class E = Waters used for primary contact (i.e. swimming, rafting, kayaking, tubing) recreation since November 1975.
- Water Supply (domestic) = Waters are suitable or intended to become suitable for potable water supplies. After receiving standard treatment these waters will meet Colorado drinking water regulations.
- Agriculture = Waters that are suitable or intended to become suitable for irrigation of crops usually grown in Colorado and which are not hazardous as drinking water for livestock.

As of 2013, the Yampa River in this area is on the Colorado Department of Public Health and Environment's (CDPHE) Section 303(d) list of Impaired Waters because of a high priority total recoverable iron impairment (CDPHE 2013). This segment is also on CDPHE's Monitoring and Evaluation List for a suspected water quality problem regarding sediment load (CDPHE 2013).

Environmental Consequences, Proposed Action: Grazing activities would result in soil compaction and displacement that increase the likelihood of erosional processes, especially on steep slopes and areas devoid of vegetation. Soil detachment and sediment transport are likely to occur during runoff events associated with spring snowmelt and short-duration, high intensity thunderstorms. In addition, the presence of livestock in the area would increase the amount of feces present in close proximity to nearby tributary drainages. Based on the lack of perennial drainages of within the Sand Hills Allotment and sufficient vegetative cover, the potential for measureable water quality degradation in nearby perennial drainages (i.e. Yampa River) associated with the proposed grazing use is minimal.

The LU 16 Allotment is far enough removed from perennial surface waters that livestock grazing under this alternative would have no impact to surface water quality.

Environmental Consequences, No Grazing Alternative: The potential for indirect impacts to downstream water quality caused by livestock use, such as trampling, trailing, or excessive grazing of vegetation that would lead to increased sediment production, would be eliminated. This alternative has the potential to benefit overall water quality downslope of the allotments; however, since there are no perennial surface waters present, this alternative would likely have a neutral effect in surface water quality.

Environmental Consequences, Cumulative Impacts: Past, present, and reasonably foreseeable actions that affect surface water quality in the Sandhills area of the Yampa River Basin primarily include ranching, some fluid mineral exploration and development, and the infrastructural development necessary to support these two activities.

The Sandhills portion of the Yampa River watershed drains primarily to the Yampa River, just west of the town of Maybell. Pollutants that are delivered downstream typically include nitrogen, pathogens, and sediment. The Yampa River through this region is presently listed as impaired by the State of Colorado for total recoverable iron and is on the State's Monitoring and Evaluation list for a suspected sediment problem. Grazing occurs at some level in nearly every portion of the watershed. During snow melt driven high-flow events that occur in the late spring sediment is delivered to the Yampa River from its numerous perennial and ephemeral tributaries. This sediment flush is a natural occurrence; the amount of sediment occurring above background levels as a result of grazing across the watershed is not known.

The effect to water quality due to the limited amount of fluid mineral and infrastructural development is primarily sedimentation, a result of the construction and maintenance of roads and pads adjacent to riparian areas in the watershed. The portion of sediment that is delivered to the Yampa River as a direct consequence of these improvements is not known, but is likely to occur during the spring high flow period coincident with the natural sediment discharge peak as well as summer storm events.

Treatment of invasive species within riparian corridors for any of the above land uses would have likely introduced chemicals into streams, but in small amounts relative to the watershed, and dilution and dispersal in these effects may not be detectable in water that is discharged to the Yampa River.

Reference: Colorado Department of Public Health and Environment Water Quality Control Commission. 2013. Regulations #33, 37, and 93. <http://www.colorado.gov/cs/Satellite/CDPHE-WQ/CBON/1251596876811>

Mitigation: None.

3.3 BIOLOGICAL RESOURCES

3.3.1 Invasive/Non-Native Species

Affected Environment: Invasive plant species and noxious weeds occur within both allotments. Cheatgrass, Canada thistle, musk thistle, scotch thistle and knapweeds occur within or near these areas. Other species of noxious weeds could be introduced by vehicle traffic, livestock, wildlife, and other means of dispersal. Principals of Integrated Pest Management are employed to control noxious weeds on BLM lands in the Little Snake Field Office.

Environmental Consequences, Proposed Action: Access to public lands for dispersed recreation, hunting, livestock grazing management, livestock and wildlife movement, as well as wind and water, can cause weeds to spread. Surface disturbance from livestock concentration and human activities associated with grazing operations can increase weed presence. The largest concern in the allotment would be for biennial and perennial noxious weed infestations to establish and not be detected. Once an infestation is detected it could be controlled with various IPM techniques. Additionally, these alternatives provide some spring grazing to utilize early maturing plants which help to keep cheatgrass populations in check. Land practices and land uses by the livestock operator and their weed control efforts and awareness would largely determine the identification of potential weed infestations within the allotment.

Environmental Consequences, No Grazing Alternative: This alternative removes the spread and introduction of weeds by livestock. Additional sources of seed dispersal would still be present throughout the allotment. However, under this alternative there would be no presence by the grazing permittee to assist with detection of infestations. Additionally, this alternative provides additional grazing pressure targeted to mitigate cheatgrass invasion.

Environmental Consequences, Cumulative Impacts: Past, present, and future actions surrounding both allotments are similar and include casual uses such as hunting and OHV travel, energy exploration, and agricultural activities on adjacent private lands. All of these activities involve varying levels of activities that serve as vectors for weed establishment such as vehicle use. Both allotments also experience use by high numbers of wild ungulates, particularly by elk, which are as capable of spreading weeds as livestock.

Mitigation: None.

3.3.2 Migratory Birds

Affected Environment: Migratory bird habitats on the two allotments are comprised of sagebrush stands and grasslands. A variety of migratory birds may utilize these vegetation communities during the nesting period (May through July) or during spring and fall migrations. The allotments provide potential habitat for several species on the USFWS's Birds of Conservation Concern (BCC) List.

BCC species associated with shrubland habitats in the LSFO include Brewer's sparrow, sage sparrow, sage thrasher, and loggerhead shrike. All four birds are summer residents in Colorado and all but the loggerhead shrike nest in sagebrush stands. Nests can be constructed in sagebrush or other shrubs, with some species nesting under shrubs. Shrikes nest in trees in shrubland habitats. All species would likely be nesting in the general area from mid-May through mid-July. Sagebrush is present on all of the parcels and may provide potential habitat for these species. Areas where small trees are encroaching into sagebrush may provide potential habitat for shrikes.

Raptor species are tied to several different habitat types within the LSFO. Sagebrush and other shrublands provide open spaces for hunting, while rocky outcrops, woodlands, sporadic trees, and cottonwood forests provide nesting substrates. Red-tailed hawk, golden eagle, and bald eagle likely nest and hunt near the two allotments.

Birds associated with these allotments are well distributed in extensive suitable habitats throughout the LSFO and northwest Colorado and habitat-specific bird assemblages appear to be composed and distributed appropriately to the normal range of habitat variability.

Environmental Consequences, Proposed Action: While livestock grazing can directly impact reproductive success of migratory songbirds by trampling of nests, it is more likely that it indirectly influences reproductive success due to changes in vegetation such as species composition, height, or cover. The proposed action for both allotments incorporates growing season deferment, allowing for adequate plant recovery, regrowth, and seed dissemination. Each pasture in the Sandhills Allotment, as well as the entire LU 16 Allotment, would receive rest for

most of the growing season every other year. On alternative years, the LU 16 Allotment would be grazed during the latter part of the season, typically beginning mid-July. Recent monitoring of the Sandhills Allotment shows that cattle are well distributed over the pastures under this grazing plan with only one site showing concentrated grazing pressure. This type of grazing schedule would be compatible with habitat need of migratory bird species on both allotments. The proposed action would also maintain habitat for small mammals, which serve as prey species for golden eagles and other raptors.

Environmental Consequences, No Grazing Alternative: This alternative would lead to increases in vertical structure, composition and density of herbaceous understory on all three allotments as a whole from current conditions. Benefits associated with livestock removal would be most expected in those areas that currently experience concentrated livestock use such as water sources. Response by migratory birds to vegetative changes would depend on the species, likely providing the greatest benefit to ground and low shrub nesters.

Environmental Consequences, Cumulative Impacts: The primary use of the allotments and the surrounding area is livestock grazing, recreation (hunting), and limited oil and gas development. Continuation of grazing would not add substantially to existing or proposed disturbances.

Mitigation: None.

3.3.3 Special Status Animal Species

Affected Environment: There are no ESA listed or proposed species that inhabit or derive important benefit from habitats from the two allotments.

The allotments provide important habitat for greater sage-grouse, a BLM sensitive species and a candidate for ESA listing. In 2012 Colorado Parks and Wildlife updated greater sage-grouse mapping data to include Preliminary Priority Habitat (PPH) and Preliminary Priority Habitat (PGH). Areas that have been identified as having the highest conservation value to maintaining sustainable greater sage-grouse populations were mapped as PPH. Sage-grouse occupied habitats outside of PPH were mapped as PGH. The majority of both allotments are mapped as PPH, with the exception of 25 acres of the LU 16 allotment, which is mapped as PGH.

Reproductive functions (breeding, nesting, and brood-rearing) are considered the most important grazing-related aspect of sage-grouse biology. Lekking takes place in the general area from late March through early May with most nesting occurring mid-April through mid-June. In general, broods appear from late May to early June. There is one active lek located within the Sandhills Allotment and several active leks located in the vicinity of both allotments. The entirety of both allotments is mapped as nesting habitat by CPW. The Sandhills Allotment also provides winter habitat for sage-grouse.

The allotments also provide habitat for two additional BLM sensitive species, bald eagles and Brewer's sparrow. Although there are no bald eagle nests or roosts located within the allotments, several nests and roost sites are located along the Yampa and Little Snake Rivers, adjacent to the allotments. In general, bald eagles utilize the allotments during the winter months when opportunistically feeding on winter killed big game species.

Brewer's sparrows are a summer resident in Colorado and nest in sagebrush stands. Nests are constructed in sagebrush and other shrubs in denser patches of shrubs. This species nests in the area of both allotments from mid-May through mid-July.

Environmental Consequences, Proposed Action:

Greater sage-grouse

The season of livestock use coincides with sage-grouse nesting and breeding on both allotments. Grazing during the nesting season has the potential to result in trampling of nests or disturbance of nesting females. This impact would be more pronounced during movements of large groups of livestock. Livestock grazing can also influence grouse indirectly by altering habitat components, primarily herbaceous cover. Both residual and new growth herbaceous cover are important for sage-grouse nest concealment.

The proposed action for both allotments incorporates growing season deferment, allowing for adequate plant recovery, regrowth and seed dissemination. Each pasture in the Sandhills Allotment, as well as the entire LU 16 Allotment, would receive rest for most of the growing season every other year. In alternate years, the LU 16 Allotment would be grazed during the latter part of the season, typically beginning mid-July. Monitoring of the Sandhills Allotment in 2005 and 2012 showed that cattle were well distributed over the pastures under this grazing plan with only one site showing concentrated grazing pressure. In regards to herbaceous understory, new growth would be subject to grazing pressure when the allotment or pasture is grazed in the spring and residual herbaceous cover would receive grazing pressure when the allotment/pasture is grazed in the late summer/fall. This would result in very good new growth and residual cover every other year. In alternate years, there would be a reduction in residual cover in the fall and again in the subsequent spring. In the Sandhills Allotment, much of the grazing pressure may be focused in the burn area where grass would be more abundant. Since the old burn scar does not support enough shrub cover to provide adequate nesting habitat in most spots, sage-grouse nesting habitat may not be impacted as much. In the LU 16 Allotment, there may be a reduction in nesting habitat quality every other year, followed by a year of substantial grass cover. Following the 50% utilization limit in both allotments coupled with spring deferment would provide adequate cover during the fall and then during the subsequent nesting season, therefore sage-grouse habitat would be adequately maintained.

Bald eagle

No bald eagle nests are located within either allotment, however, this species likely hunts in upland habitats in the general area and uses winter roost sites along the Yampa River. During the winter, bald eagles are likely present within both allotments, feeding on road or winter killed big game. The proposed action would maintain vegetative conditions in the two allotments, which would continue to provide suitable habitat for upland prey species. Overall this alternative would be compatible with maintaining healthy habitat for bald eagles and prey species.

Brewer's sparrow

Grazing can directly impact Brewer's sparrows by trampling nests, or indirectly affect this species by changing components of habitat. Grazing may cause an increase in weed infestations,

primarily cheatgrass, which would degrade sparrow habitat. Additionally, the presence of livestock can increase the abundance of brown-headed cowbirds, increasing the chance for nest parasitism by this species (Holmes and Johnson 2005).

Grazing systems that promote healthy sagebrush communities would be compatible with maintaining Brewer's sparrow habitat. The proposed action incorporates rotation and growing season deferment, which would maintain healthy ecosystems. Overall this alternative would be compatible with maintaining healthy habitat for Brewer's sparrow.

Environmental Consequences, No Grazing Alternative: This alternative would lead to increases/improvements in vertical structure, composition and density of herbaceous understory on the allotments as a whole from current conditions. Benefits associated with livestock removal would be most expected in those areas that currently experience concentrated livestock use such as water sources. Improvements in herbaceous understory height and density would enhance nesting conditions for greater sage-grouse throughout the allotments as a whole.

Environmental Consequences, Cumulative Impacts: The primary use of the allotments and the surrounding area is livestock grazing, recreation (hunting), and limited oil and gas development. Continuation of grazing would not be expected to add substantially to existing or proposed disturbances.

Mitigation: None.

3.3.4 Upland Vegetation

Affected Environment:

Sand Hills Allotment #04407

The allotment is characterized by sagebrush-grass, bitterbrush, and post-fire grassland communities. Dominant species present include Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), basin big sagebrush (*A. tridentata tridentata*), antelope bitterbrush (*Purshia tridentata*), green rabbitbrush (*Chrysothamnus viscidiflorus*), rubber rabbitbrush (*C. nauseosus*), lupine (*Lupinus* spp.), Hood's phlox (*Phlox hoodii*), scarlet globemallow (*Sphaeralcea coccinea*), Indian ricegrass (*Oryzopsis hymenoides*), western wheatgrass (needle-and-thread (*Stipa comata*), purple threeawn (*Aristida purpurea*), bottlebrush squirreltail (*Elymus elymoides*), and Sandberg bluegrass (*Poa sandbergii*). Non-native cheatgrass (*Bromus tectorum*) is present at varying levels throughout the allotment, though no areas exhibit complete dominance of this species. Non-native crested wheatgrass (*Agropyron cristatum*) is also present throughout.

LU 16 Allotment #04532

The allotment supports a sagebrush-grass plant community. Dominant plants present include Wyoming big sagebrush, antelope bitterbrush, green rabbitbrush, arrowleaf balsamroot (*Balsamorhiza sagittata*), longleaf phlox (*Phlox longilobus*), scarlet globemallow, crested wheatgrass, western wheatgrass, and Sandberg bluegrass. Crested wheatgrass is the most prevalent perennial grass throughout much of the allotment due to past agricultural practices when the land was a patented homestead. Vigor, cover, and abundance of forbs and perennial grasses are high, with very little bare ground present.

Environmental Consequences, Proposed Action: Defoliation through livestock herbivory has varying effects on the growth and physiology of perennial grasses. Repeated removal of leaf tissue, particularly during the growing season can result in depleted carbohydrate reserves, loss of root mass, and eventual plant death. Therefore, implementing growing season deferment serves to maintain the ability of the forage component of the plant community to complete growth cycles, maintain and restore carbohydrate reserves, and regenerate root mass.

On both allotments, this alternative would result in growing season deferment of grazing every other year. During deferment, forage species would be allowed sufficient time for growth, energy storage, and seed production prior to grazing use.

Deferred grazing is delaying grazing until after the most important forage plants have set seed, although with plants that reproduce vegetatively (such as western wheatgrass), seed maturity may have little significance. When grazing is periodically deferred, forage plants have a better opportunity to reproduce. Grazing after seed maturity injures plants less and has the benefit of animal transport and trampling of seed. By allowing forage species to grow unhindered during the spring, they are able to produce a greater quantity of seed. Conversely, when livestock are restricted until forage grasses are mature, the grasses are less palatable (and in some cases avoided due to injurious awns) and less nutritious.

Sand Hills Allotment #04407

Perennial grasses would be allowed growing season deferment every other year, with use occurring on the entire allotment at a lessened intensity through the post-seed set, summer dormancy period. Favored forage species such as Indian ricegrass, needle-and-thread, crested wheatgrass, and western wheatgrass would receive the bulk of livestock herbivory throughout most of the grazing period. What cheatgrass is present can also serve as part of the forage base prior to seed set in late May after which it becomes largely unavailable due to the presence of cured awns. Purple threeawn would generally be avoided, particularly when other forage grasses are present due to the injurious nature of the cured awns and relatively poor forage value.

LU 16 Allotment #04532

Livestock use would be restricted until forage species have reached seed ripe every other year with a short, 21 day grazing window available after seed set in years of spring deferment. This would allow forage species the maximum possible ability to restore root tissue and carbohydrate reserves and put on seed prior to grazing every other year.

Environmental Consequences, No Grazing Alternative: Not allowing livestock use on either allotment would result in greatly reduced herbivory throughout the herbaceous portions of the plant communities. Wildlife use would continue and elk, whose dietary overlap with cattle is considerable, would continue to use the allotment, particularly during spring and fall migrations. Increases in standing herbaceous biomass would occur, however, potentially increasing wildfire potential, particularly in late summer and early fall.

Environmental Consequences, Cumulative Impacts: All facets of the plant communities on these allotments are affected by climate, wildlife, and direct disturbance through the presence of roads and other physical facilities both within and adjacent to the allotments. Past agricultural practices

have introduced non-native crested wheatgrass into both allotments. Recent wildfire has also affected the community on the Sand Hills Allotment. Cheatgrass presence is one result of many of these stressors, though it is not present at levels that would result in a new stable state.

Mitigation: None.

3.3.4 Wetlands and Riparian Zones

Affected Environment: There are no riparian resources identified on federal lands within the Sand Hills Allotment. Within the LU 16 Allotment, there are approximately 1.8 acres of wetlands within a fork of Greasewood Gulch that bisects the allotment. It was last assessed in 2000 and was meeting standards, but with no real trend noticed in condition when compared to prior observations.

Environmental Consequences, Proposed Action: Grazing as proposed in the LU 16 Allotment would maintain or improve the condition of the Greasewood Gulch wetland. The relatively short allowable grazing period (~21 days) and the continued implementation of a growing season deferment every other year would act to reduce pressure on this singular riparian resource and maintain vigor and reproduction of riparian vegetation over time.

Environmental Consequences, No Grazing Alternative: Eliminating grazing would have little to no effect on riparian resources in the Sand Hills Allotment, since there are no active riparian zones occurring within the allotment.

Removing cattle from the LU 16 Allotment would maintain or improve the condition of the Greasewood Gulch wetland over the long-term. A decrease in herbivory on riparian vegetation and trampling pressure caused by livestock in the riparian area would increase soil moisture and reduce the potential for erosion and any associated changes to wetland form/function, particularly in low and moderate gradient stream where the presence of riparian vegetation is one of the most important factors in maintaining stability. In ephemeral wetlands, reduced livestock grazing pressure would also maintain or raise seasonal water tables during the dry season to a point where facultative and obligate riparian plant species are able to persist or even expand. However, these benefits would not fully be realized if the riparian resource is used by wildlife, particularly ungulates, since wildlife can also have similar impacts to riparian resources, especially during periods of drought. Also, livestock grazing on adjacent private and other non-federal lands would continue to produce direct effects to riparian resources that would indirectly affect riparian resources on federally managed lands.

Environmental Consequences, Cumulative Impacts: Past, present, and reasonably foreseeable actions that affect riparian areas in the central Yampa River Basin primarily include ranching, some fluid mineral exploration and development, and the infrastructural development necessary to support these two activities.

The area surrounding both allotments are characterized by relatively low gradient perennial and ephemeral drainages, many of which have parallel dirt or gravel roads and drain into the Yampa River or its tributaries. The effect to riparian areas due to any fluid mineral and infrastructural development is primarily sedimentation, a result of the construction and maintenance of roads

and pads adjacent to any riparian areas in the watershed. The portion of sediment that is delivered to the drainages and therefore the Yampa River as a direct consequence of these improvements is not known, but is likely to occur during the spring high flow period coincident with the natural sediment discharge peak as well as summer storm events. The presence of roads parallel to drainages can restrict natural lateral movement of waterways over the long term by armoring and/or straightening banks and reducing any floodplain capability to moderate overbank flooding. Repeated fires in the 1990's burned approximately 68% of the allotment. Areas that were once a community dominated by a bitterbrush/big sagebrush plant community are now in a transitory state of semi-grassland. The burned areas are predominantly grasses and forbs with an increasing amount of pioneering shrubs, particularly green and rubber rabbitbrush. Only a small portion of bitterbrush-dominated community (approximately 3,840 acres) remains.

Most lands along the Yampa River are private; public lands within the basin are intermixed with private and State lands, which are also included in many of the grazing allotments. Where land health/riparian assessments are available, riparian standards are mostly being met. Roads adjacent to the floodplain or the presence of invasive species are usually cited as compromising riparian health in these instances. Livestock use of riparian areas on public lands is light to moderate, as many private portions of the allotments include water developments that help to keep extended livestock use away from these sensitive areas. Riparian condition on private lands within the watershed is not known.

Mitigation: None.

3.3.6 Wildlife, Terrestrial

Affected Environment: Plant communities within the two allotments are comprised primarily of sagebrush stands and grasslands. Many of the grasslands are the result of fire events, particularly from the large "I Do" fire in 1988 on portions of the Sandhills Allotment. Bitterbrush can also be found on both allotments. A variety of wildlife habitats and their associated species occur in the general area. Common species such as coyotes, cottontail rabbits, and ground squirrels use these habitats. The allotments provide year round habitat for mule deer and pronghorn and winter habitat for elk.

Environmental Consequences, Proposed Action: Livestock grazing can alter vegetation structure, composition, and function. Effects on terrestrial wildlife are dependent on the species of interest and may be adverse or beneficial depending on grazing: numbers, timing, frequency and intensity. The proposed action for both allotments incorporates growing season deferment, allowing for adequate plant recovery, regrowth, and seed dissemination. Each pasture in the Sandhills Allotment, as well as the entire LU 16 Allotment would receive growing season deferment for most of the growing season every other year. On alternative years, the LU 16 Allotment would be grazed during the latter part of the season, typically beginning mid-July. Recent monitoring of the Sandhills Allotment showed that cattle were well distributed over the pastures under this grazing plan with only one site showing concentrated grazing pressure. This type of grazing schedule should be compatible with maintaining suitable habitat for a variety of wildlife species.

Environmental Consequences, No Grazing Alternative: This alternative would lead to increases/improvements in vertical structure, composition and density of herbaceous understory on the allotments as a whole from current conditions. Benefits associated with livestock removal would be most expected in those areas that currently experience concentrated livestock use (such as water sources). Overall, wildlife species that would receive the most benefit would be grazing species and species that use herbaceous understory for hiding cover and nest concealment.

Environmental Consequences, Cumulative Impacts: Cumulative impacts to terrestrial wildlife would be similar to cumulative impacts described in the Migratory Bird section of this EA.

Mitigation: None.

3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

3.4.1 Cultural Resources

Affected Environment: BLM's authorization of grazing permits is considered an undertaking subject to compliance with Section 106 of the National Historic Preservation Act (NHPA). BLM has the legal responsibility to consider the effects of its actions on cultural resources located on federal land. BLM Manual 8100 Series; the Colorado State Protocol; and BLM Colorado Handbook of Guidelines and Procedures for Identification, Evaluation, and Mitigation of Cultural Resources provide guidance on Section 106 compliance requirements to meet appropriate cultural resource standards. Section 106 of NHPA requires federal agencies to: 1) inventory cultural resources within federal undertaking Areas of Potential Effect (APEs), 2) evaluate the significance of cultural resources by determining National Register of Historic Places (NRHP) eligibility and, 3) consult with applicable federal, state, and tribal entities regarding inventory results, NRHP eligibility determinations, and proposed methods to avoid or mitigate potential impacts to eligible sites.

In Colorado, the BLM's NHPA obligations are carried out under a Programmatic Agreement (PA) among the BLM, the Advisory Council on Historic Preservation, and the State Historic Preservation Officer (SHPO). Should an undertaking be determined to have "no effect" or "no adverse effect" by the BLM-LSFO archaeologist, the undertaking may proceed under the terms and conditions of the PA. If the undertaking is determined to have "adverse effects," project-specific consultation is then initiated with the SHPO. Additionally, cultural resources assessment of grazing allotments follows the procedures and guidance of the Colorado BLM State Director as provided in BLM Instructional Memorandums (IMs) IM-WO-99-039, IM-CO-99-007, IM-CO-99-019, and IM CO-2002-29.

The culture history of northwestern Colorado is presented among several recent context studies. Reed and Metcalf's (1999) study of the Northern Colorado River Basin provides applicable prehistoric and historic overviews as compiled by Frederic J. Athearn (1982) and Michael B. Husband (1984). A historical archaeology context also was prepared for the State of Colorado by Church et al. (2007). Furthermore, significant cultural resources administered by the LSFO are provided in a Class 1 (archival) overview (McDonald and Metcalf 2006), in addition to valuable contextual data provided by synthesis reports of archaeological investigations

conducted for a series of large pipeline projects in the LSFO management area (Metcalf and Reed 2011; Rhode and others 2010; Reed and Metcalf 2009).

A Class 1 cultural resources assessment was completed for the Sand Hills and LU 16 Allotments by BLM-LSFO Archaeologist Kim Ryan on June 18, 2013. Data reviewed were obtained from BLM cultural program project files, site reports, and atlases, in addition to BLM-maintained General Land Office (GLO) plats and patent records. Electronic files also were reviewed through online cultural resource databases including *Compass* (maintained by the Colorado Office of Archaeology and Historic Preservation) and the National Register Information System (NRIS; maintained by the National Park Service). The results of archival research are summarized in the following table; data provided are focused on BLM-administered lands within the specified allotments, and based on information available from the above-referenced sources.

Allotment No. (BLM acres)	BLM Acres Previously Surveyed	BLM Acres <u>NOT</u> Surveyed	Percent of BLM Acres Inventoried Within Allotment	Identified NRHP-Eligible or Needs Data Sites	Estimated Sites Within Allotment*	Estimated NRHP-Eligible or Needs Data Sites Within Allotment*
04407 (11,081)	478.08	10,602.92	4.3	4	222	97
04532 (482)	2.56	479.44	0.53	0	14	4

*Estimated site density as based on existing inventory data. Estimates may be revised (up or down) by future inventories and/or consultations.

Background research indicates that 17 cultural resource assessments were conducted on BLM-administered lands within the subject allotments. These inventories resulted in the identification of nine cultural resource sites, all of which are located within the Sand Hills Allotment. Additionally, review of historic-age GLO plats shows evidence of possible features within the subject allotments such as roads, fence lines, and irrigation ditches, including an approximately five-mile segment of the Thornburgh Wagon Road (5MF.1707).

Many GLO-depicted features are unlikely to retain sufficient integrity for NRHP-eligibility, however, several extant segments of the Thornburgh Wagon Road have been documented within the LSFO management area and, as a whole, the resource is evaluated as NRHP-eligible under Criterion A (local/regional significance). Within the Sand Hills Allotment, the Thornburgh Wagon Road predominantly corresponds with County Road 143. Segments of additional historic-age routes, such as the “Meeker to Bear River Road” and “Lily Park to Maybell Road” (as depicted on 1908 GLO plats), also may exist within the subject allotments.

The remaining eight cultural resource sites consist of prehistoric campsites and lithic scatters, three of which are considered “needs data” (5MF.2744, 5MF.3492, and 5MF.5122) and five were evaluated as ineligible for NRHP status. For management purposes, “needs data” archaeological sites are considered *historic properties* (i.e., NRHP-eligible) until additional assessments are made to support official eligibility determinations.

Estimating the total amount of cultural resources present within the subject allotments is difficult because of the overall lack of prior survey within and adjacent to the APE, however, based on the available data for the allotments and surrounding area, it is likely that 236 cultural resource sites (and/or features) exist within the subject allotments, of which approximately 101 may be

NRHP-eligible. As such, cultural resources inventory for a portion of BLM-administered lands within the subject allotments should be conducted within 10 years of permit issuance. Subsequent inventory should focus on areas of livestock concentration, and where background research indicates the potential for cultural resources. Additionally, NRHP-eligible and “needs data” sites should be monitored for potential livestock impacts. If, as a result of new assessment and/or monitoring, NRHP-eligible sites or features are found to exhibit potential for or actively occurring impacts, mitigation measures will be identified and implemented in consultation among LSFO and SHPO.

Environmental Consequences, Proposed Action: Direct impacts to historic properties where livestock concentrate may include trampling, chiseling, and churning of site soils, cultural features and artifacts, artifact breakage, and impacts from standing, leaning, or rubbing against historic structures, above-ground cultural features and/or rock art (Broadhead 2001; Osbourn et al. 1987). Indirect impacts from livestock concentrations may include increased soil erosion and gullyng, in addition to increased potential for unlawful artifact collection and/or vandalism of cultural resources. Other indirect impacts may include degradation of the historic setting, thereby detracting from the view-shed and historic feeling of nearby cultural resource sites. Because historic roadways have been continually modified, obliterated, or are currently in use, the potential for grazing impacts on them is considered negligible.

Environmental Consequences, No Grazing Alternative: While a no grazing alternative alleviates potential damage from livestock activities, cultural resources are constantly subject to site formation processes or events after creation (Binford 1981; Schiffer 1987). These processes can be both cultural and natural, and may occur instantly or over thousands of years. Cultural formation processes include activities directly or indirectly caused by humans. Natural processes include chemical, physical, and biological processes of the natural environment that impinge upon and/or modify cultural materials.

Environmental Consequences, Cumulative Impacts: Cumulative impacts to historic properties may occur within or adjacent to the allotments, including areas within the allotment view-sheds. However, the region has been historically grazed (for more than 50 years) and the intensity of livestock use has generally decreased over time. Any extant historic property within or adjacent to the allotments—and where potential for impacts exist—are more likely to have sustained impacts as a result of prior livestock/grazing activities or other historic land-use activities (e.g., mining, agriculture, etc.). Although continued livestock use may not pose additional, direct impacts in areas where prior grazing was intensive, secondary effects such as increased erosion could cause long-term, irreversible effects to historic properties, where present. Livestock use can also increase ground visibility over time as a result of decreased ground cover, and by the installation and/or removal of range improvements such as stock ponds and pipelines. These factors may result in the exposure of cultural deposits that would otherwise remain obscured or buried, thereby raising the potential for illegal collection of cultural materials.

Mitigation: A cultural resources survey for a portion of BLM-administered lands within each of the subject allotments should occur within 10 years of permit issuance, with efforts focused on identified areas of livestock concentration (e.g., springs and/or water developments, gates, chutes, etc.). Any cultural resources identified as NRHP-eligible or “needs data” also should be assessed for potential livestock impacts. Continued livestock use of the area is appropriate,

provided that any identified impacts to NRHP-eligible resources are mitigated. Should the BLM-LSFO determine that livestock grazing is having an adverse effect on historic properties, mitigation will be developed in coordination with the SHPO.

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3.4.2 Hazardous or Solid Wastes

Affected Environment: There are no known hazardous or solid wastes present on public lands within either allotment.

Environmental Consequences, Proposed Action: Potential releases of hazardous materials could occur due to vehicular access for livestock management operations. Coolant, oil, and fuel are materials that could potentially be released. Due to the limited amount of vehicular activity that would be required, the potential for releases of any of these materials is low and if a release were to occur, it would be minimal and highly localized and not result in an adverse impact to the allotment.

Environmental Consequences, No Grazing Alternative: Impacts would be similar to that for the Proposed Action in that the public regularly accesses both allotments for purposes other than livestock grazing. The same potential exists for releases of fluids or other hazardous materials as a result of the use of motor vehicles.

Environmental Consequences, Cumulative Impacts: While there are no specific areas of hazardous or solid wastes on either allotment, public access for both permitted and casual uses always carries the potential of hazardous material releases through accidental spill or intentional dumping.

Mitigation: None

3.4.3 Native American Religious Concerns

Affected Environment: Four Native American tribes have cultural and historical ties to lands administered by the BLM-LSFO. These tribes are the Eastern Shoshone, Ute Mountain Ute, Uinta and Ouray Agency Ute, and the Southern Ute.

American Indian religious concerns are legislatively considered under several acts and Executive Orders including the American Indian Religious Freedom Act, the Native American Graves Environmental Assessment Protection and Repatriation Act, and Executive Order 13007 (Indian Sacred Sites). In sum, and in concert with other provisions such as those found in the NHPA and Archaeological Resources Protection Act, these acts and orders require the federal government to carefully and proactively consider the traditional and religious values of Native American culture and lifeways to ensure, to the greatest degree possible, that access to sacred sites, treatment of human remains, the possession of sacred items, conduct of traditional religious practices, and the preservation of important cultural properties are not unduly infringed upon. In some cases, these concerns are directly related to historic properties and archaeological resources. Likewise, elements of the landscape without archaeological or human material remains also may be involved. Identification of Native American concerns is normally completed during land-use planning efforts, reference to existing studies, or through direct consultation with tribes.

Consultation for the type of proposed undertaking is consulted on annually with the aforementioned tribes. Letters were sent to the tribes in the spring of 2012 describing general range permits and projects as planned for the 2013 fiscal year. No comments were received.

Project-specific consultation is typically not conducted unless activities are proposed within a previously identified area of tribal concern or if an undertaking may involve culturally significant items, sites and/or landscapes.

Environmental Consequences, Proposed Action: Items, sites, or landscapes determined as culturally significant to the tribes can be directly or indirectly impacted. Direct impacts may include, but are not limited to, physical damage, removal of objects or items, and activities construed as disrespectful (e.g., installation of portable toilets near a sacred site). Indirect impacts may include, but are not limited to, prevention of access (hindering the performance of traditional ceremonies and rituals), increased visitation of an area, and potential loss of integrity related to religious feelings and associations.

There are no known items, sites, or landscapes determined as culturally significant to the tribes within or immediately adjacent to the permit area. The proposed action does not prevent access to any known sacred sites, prevent the possession of sacred objects, or interfere with the performance of traditional ceremonies and/or rituals.

Environmental Consequences, Cumulative Impacts: Continued livestock grazing has the additive effect of altering the landscape from that ancestrally known by the tribes. Although specific, culturally sensitive sites have not been identified within the allotment or immediate vicinity, the overarching concern is for cumulative effects that modern culture and/or developments cause upon the landscape.

Mitigation: There are no known adverse impacts to any culturally significant items, sites, or landscapes. If new information is provided by consulting tribes, additional or edited terms and conditions for mitigation may be required to protect resource values.

3.5 RESOURCE USES

3.5.1 Livestock Operations

Affected Environment: Base property for the Sand Hills Allotment includes native rangeland within the allotment and irrigated hay pasture adjacent to the allotment. Base property for the LU 16 Allotment includes native rangeland adjacent to the allotment. Both of these privately-owned resources are capable of supporting livestock operations during various phases of the grazing season on the allotments.

The deferred-rotation grazing system on the Sand Hills Allotment relies on the manipulation of water sources that are fed by wells and active herding. There is no cross fencing between the east and west halves of the allotment.

Environmental Consequences, Proposed Action: The sufficiency of base property forage allows for operational flexibility in the event that reductions in available forage require immediate reductions in grazing use. The use of active herding and water manipulation to affect the deferred-rotation on the Sand Hills Allotment requires a more intensive, hands-on management approach than similar systems on allotments with cross-fencing. Near daily riding of the allotment and water system maintenance are vital to making this work without cross-fencing.

Conversely, the lack of a cross fence on this allotment, which receives very heavy elk and pronghorn use, results in a lessened impact to these species and eliminates the need for constant maintenance that a fence in this area would require.

Haying operations adjacent to the Sand Hills Allotment provide valuable flexibility to livestock operations, but only after the hay has been harvested in late July to early August.

Environmental Consequences, No Grazing Alternative: The ability of the livestock operator to operate a functional livestock operation would be severely curtailed. Owned base property is capable of supporting livestock, but not to the degree that operations would be economically sustainable. Under the Little Snake RMP, these allotments would continue to be open to livestock grazing.

Environmental Consequences, Cumulative Impacts: The raising of livestock is one of the principal economic activities carried out across northwest Colorado. The operations of the proponent are typical to such operations in the region. There are no impacts to other livestock operations from either alternative.

Mitigation: None.

CHAPTER 4– PUBLIC LAND HEALTH STANDARDS

4.1 INTRODUCTION

The Sand Hills Allotment #04407 was assessed for compliance with the Colorado Standards of Public Land Health by an interdisciplinary team consisting of two wildlife biologists and three rangeland management specialists on June 13, 2001 as part of the Sandhills Landscape Assessment.

The LU 16 Allotment #04532 was assessed for compliance with the Colorado Standards of Public Land Health by two wildlife biologists, two rangeland management specialists, and a natural resources specialist on August 3, 1998 as part of the Little Snake Watershed Assessment.

4.2 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.

4.2.1 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 2001 assessment:

Sand Hills Allotment #04407

The upland soil standard for healthy rangelands is met. Three sites were evaluated for land health within this allotment in 2001. The only visual indicators for land health that were considered negative were for biological soil crusts. This occurred on two of the sites, both of which had been burned over in the wildfires; the likely cause for the lack of crusts at the time of assessment.

LU 16 Allotment #04532

This standard is met. Upland soil infiltration and permeability rates are appropriate for the topography found within this allotment. Vegetative cover is sufficient to disperse hydrologic influences. Runoff from snow melt and rain is not excessive for these slopes, and in typical years optimal soil water recharge would be expected. Upland soils within this allotment support a diverse shrub/grass plant community. The plant community provides good cover, abundant litter and a variety of root depths to protect soil from erosion and allow continued soil genesis and nutrient cycling.

Proposed Action: This alternative would maintain current conditions relative to this standard and would not preclude it from continuing to be met.

No Grazing Alternative: Removing livestock from public lands would generally improve soil conditions within the allotments, but may have unintended, indirect impacts to soil health immediately adjacent to the allotment if additional infrastructure would be built to implement this alternative. This standard is likely to continue to be met under this alternative.

4.2.2 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 lentic resource in the LU16 allotment is meeting the public land health standard for riparian systems as of the most recent assessment in 2000. There are no riparian resources identified in the Sand Hills allotment.

Proposed Action: This standard would continue to be met under this alternative and may lead to overall improvement in wetland condition over time by continuing the implementation of a growing season deferment every other year, which will act to reduce pressure on this singular riparian resource and maintain vigor and reproduction of riparian vegetation over time.

No Grazing Alternative: Removal of all livestock grazing would eliminate all potential livestock impacts to riparian areas on public lands. This would result in this standard continuing to be met.

4.2.3 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:

Sand Hills Allotment #04407

There is a diverse plant community of multiple age classes. The fire history in the area has created a mosaic of shrub/grassland mixture. In most areas desirable and native species are dominant providing significant ground cover and litter. There is a small percentage of the area that contains significant cover of undesirable grass and forb species but is minor when compared to the entire landscape.

The affected environment provides suitable habitat for a variety of wildlife species. The permit renewal would not affect the ability to meet this standard.

LU 16 Allotment #04532

This standard is met for the LU 16 Allotment and was met overall for the watershed. The LU 16 Allotment was seeded to crested wheatgrass in the past, therefore, the plant diversity and composition is low, which is to be expected. There is good forb diversity and good sagebrush and bitterbrush recruitment. Plant production and vigor is good.

Public lands within this allotment provide productive wildlife habitat for a variety of big game, small mammal and songbird species.

Proposed Action: Grazing on both allotments would include the continuation of periodic growing season deferment. Current grazing management has maintained healthy, productive, and resilient plant communities, and the proposed action would continue to allow this standard to be met.

No Grazing Alternative: Removal of livestock grazing would allow plant communities to continue meeting this standard.

4.2.4 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:

Sand Hills Allotment #04407

The Sand Hills Allotment provides habitat for three BLM sensitive species, greater sage-grouse, bald eagle, and Brewer's sparrow. This allotment is currently meeting this standard and would continue to be met under either alternative.

There are no federally listed threatened, endangered, or BLM sensitive plant species populations present on the Sand Hills Allotment. For plants, this standard does not apply.

LU 16 Allotment #04532

The LU 16 Allotment provides habitat for three BLM sensitive species, greater sage-grouse, bald eagle and Brewer's sparrow. This allotment is currently meeting this standard and would continue to be met under either alternative.

There are no federally listed threatened, endangered, or BLM sensitive plant species populations identified within the LU 16 Allotment. For plants, this standard does not apply.

4.2.5 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: There are no perennial surface waters that would be subject to the Clean Water Act present on public lands within either of the allotments. However, the

Sand Hills Allotment is in close proximity to the Yampa River, which is on the CDPHE's Monitoring and Evaluation List for a suspected water quality problem regarding sediment load.

Proposed Action: The proposed grazing intensity and timing under this alternative is not likely to compromise soil stability and vegetation community health, two important factors in maintaining downstream/down gradient water quality, given the relatively condition of the vegetation within the allotments and the lack of direct livestock access to nearby perennial waters that otherwise may contribute to sediment-related water quality issues.

No Grazing Alternative: This alternative has the potential to slightly benefit overall water quality downslope/down gradient of the allotments, however, since there are no perennial surface waters present and no direct access to adjacent perennial waters, this alternative would likely have a neutral effect in surface water quality. This standard would continue to be met under this alternative.

SIGNATURE OF PREPARER:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED

Finding of No Significant Impact
DOI-BLM-CO-N010-2013-0039-EA

Based upon a review of this Environmental Assessment and the supporting documents, I have determined that the Proposed Action is not a major federal action and will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27 and do not exceed those effects as described in the Little Snake Record of Decision and Resource Management Plan (2011). An environmental impact statement is not required. This finding is based on the context and intensity of the project as described below.

Context: The project is a site-specific action directly involving BLM administered public lands that do not in and of itself have international, national, regional, or state-wide importance.

Intensity: The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this Proposed Action:

1. Impacts that may be both beneficial and adverse

The beneficial effects of the Proposed Action includes: in authorizing public land grazing this action sustains the local economy as grazing operations would continue to supply personal income to the operator and employees, and would have a proportional influence on the regional, Colorado, and national economy. This action supports the western livestock industry. The authorized livestock operator(s) have mandatory and special terms and conditions that must be met to maintain their grazing preference. This provides a certain level of stewardship of public lands in that if these lands were to become degraded by any activity or event, natural or human in origin, grazing and or other authorized uses would be terminated. This stewardship role of the livestock operator not only mandates proper livestock and forage management but also provides communication with the BLM as to other activities or events that could cause degradation to public lands. Long term effects would be limited in scope.

2. Degree of effect on public health and safety

There would be no effects on public health and safety.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas

There are no park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas in the area of Proposed Action. As described in the EA, impacts to cultural resources were identified for the Proposed Action. As this action is not a new action but a continuation of historic land uses in this area there would be no affect to unique characteristics of the geographic area.

4. Degree to which the possible effects on the quality of the human environment are likely to be highly controversial

Public input regarding the Proposed Action has been solicited during the planning process. The

BLM Little Snake Field Office sent out a Notice of Public Scoping on December 15, 2010 to determine the level of public interest, concern, and resource conditions on the grazing authorizations that were up for renewal in FY 2012. A Notice of Public Scoping was posted on the Internet, at the Colorado BLM Home Page, asking for public input on permit/lease renewals. Individual letters were sent to the affected permittees/lessees, informing them their permit/lease was up for renewal and requesting any information they wanted included in or taken into consideration during the renewal process. No comments were received.

5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk

No highly uncertain or unknown risks to the human environment were identified during analysis of the Proposed Action.

6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The Proposed Action neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts

No individually or cumulatively significant impacts were identified for the Proposed Action. Any adverse impacts identified for the Proposed Action, in conjunction with any adverse impacts of other past, present, or reasonably foreseeable future actions will result in negligible impacts to natural and cultural resources.

8. Degree to which the action may adversely affect district, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:

There would be no loss or destruction to these resources. A cultural resources study is initiated prior to any action considered and undertaken under Section 106 of the National Historic Preservation Act. Any adverse effects to Historic Properties are mitigated in consultation with the Colorado Office of Archaeology and Historic Preservation (SHPO).

9. Degree to which the action may adversely affect an endangered or threatened species or its critical habitat

There are no threatened or endangered species or habitats for such species present within these allotments.

10. Whether the action threatens a violation of federal, state, or local environmental protection law

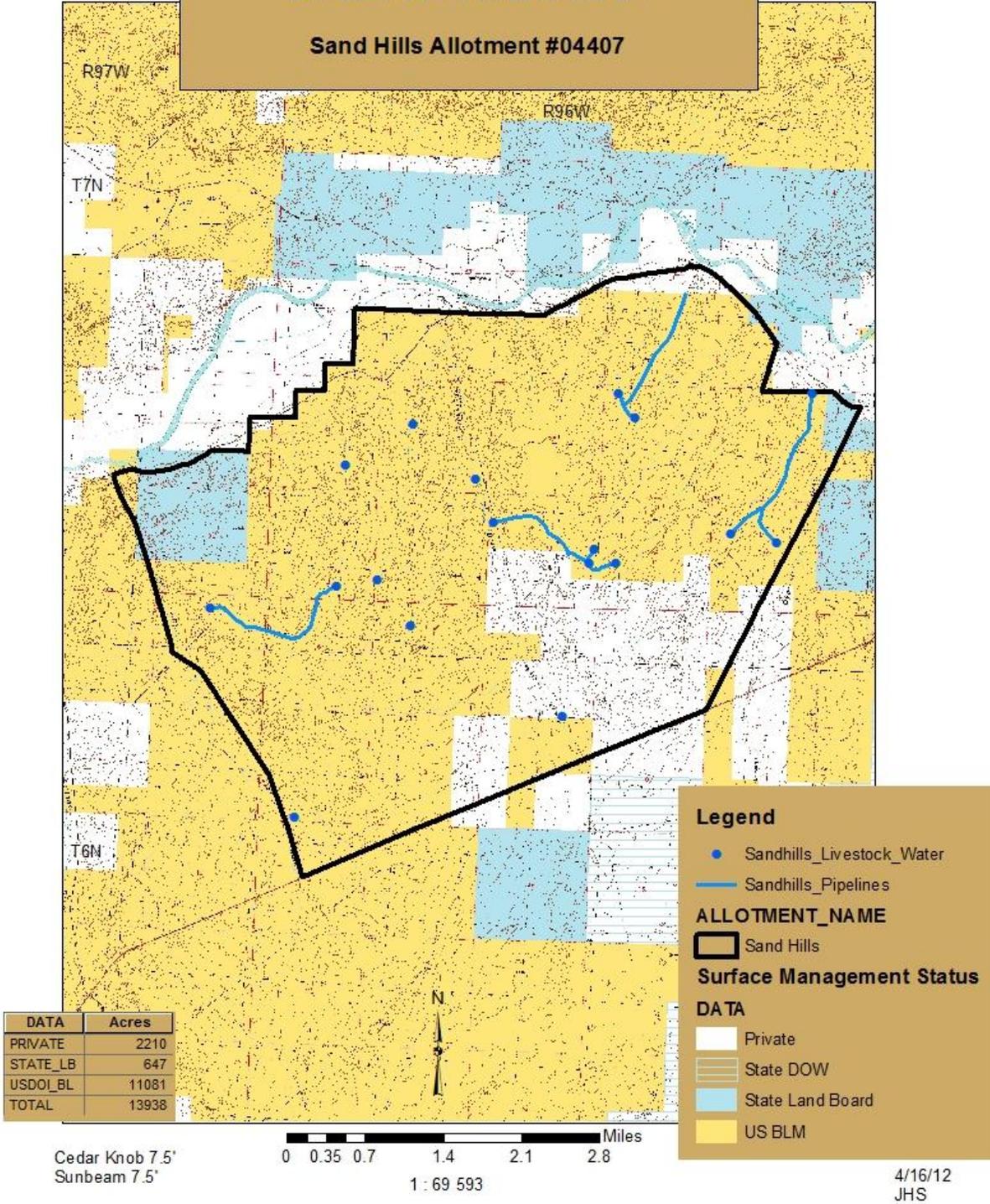
The Proposed Action violates no federal, state, or local environmental protection laws.

SIGNATURE OF AUTHORIZED OFFICIAL:

Wendy Reynolds, Field Manager

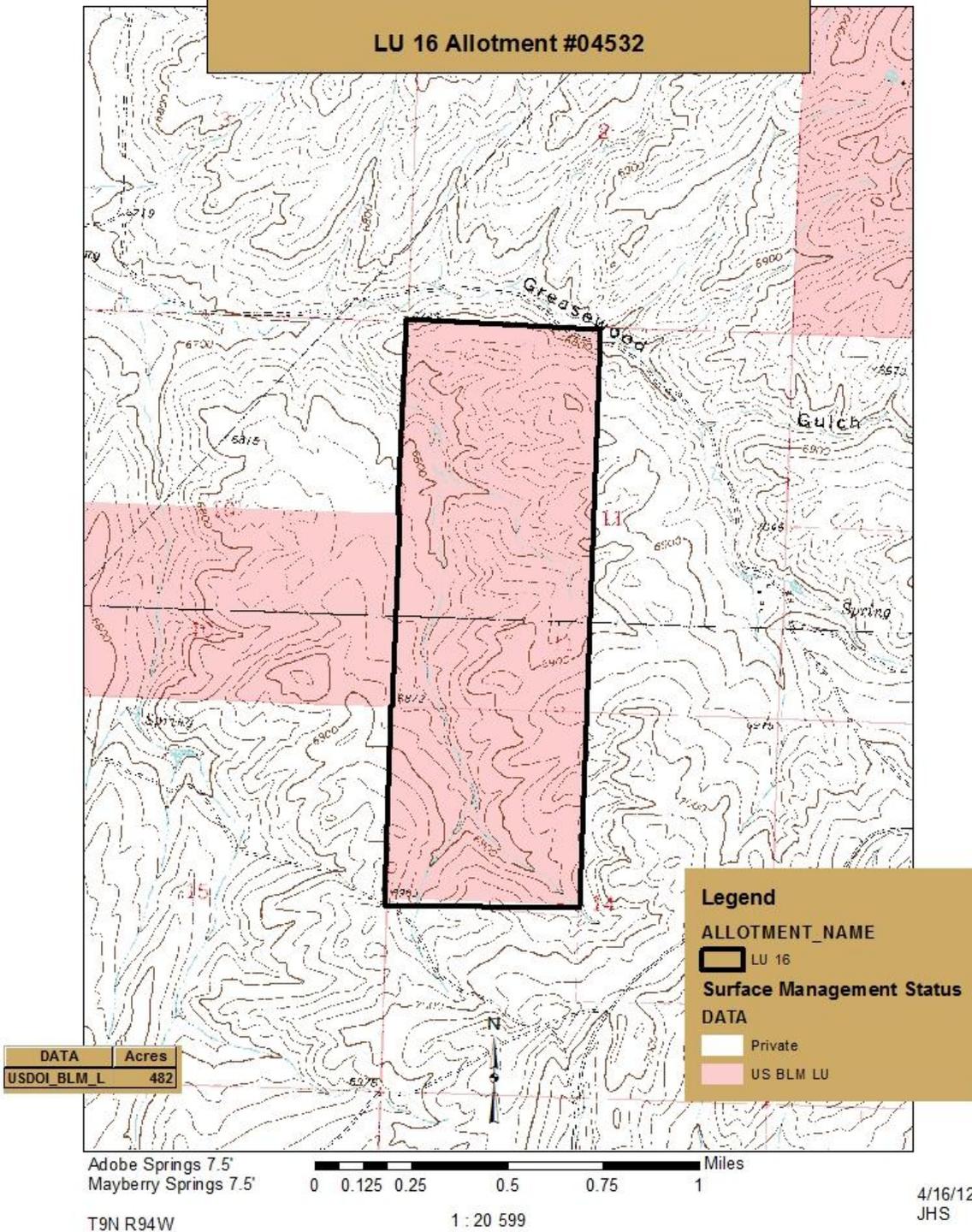
DATE SIGNED:

Attachment 1a
DOI-BLM-CO-N010-2013-039 EA
Sand Hills Allotment #04407



**Attachment 1b
DOI-BLM-CO-N010-2013-039-EA**

LU 16 Allotment #04532



ATTACHMENT #2
DOI-BLM-CO-N010-2013-0039-EA
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 year's 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) 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.

- E) 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.
- F) 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.
- G) 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.