

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

**Environmental Assessment
for the Renewal of the Grazing Permit on the
Upper Mud Spring Allotment #04507**

Little Snake Field Office
455 Emerson Street
Craig, Colorado

DOI-BLM-CO-N010-2015-0019-EA

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CHAPTER 1 - INTRODUCTION

1.1 IDENTIFYING INFORMATION

PROJECT NAME: Renewal of the grazing permit for the Upper Mud Springs Allotment #04507.

CASEFILE/ALLOTMENT OR PROJECT NUMBER: 0505403/04507

1.2 PROJECT LOCATION AND LEGAL DESCRIPTION

LEGAL DESCRIPTION: See Allotment Map, Attachment 1.

Upper Mud Springs Allotment #04507

T.10.N R.91.W all or part of Secs. 4-10, 15-18

1,216 acres BLM
657 acres BLM LU
2,859 acres private
4,732 acres total

COUNTY AND GENERAL LOCATION: Moffat County; approximately 21 miles north of Craig CO, and 13 miles south of the Wyoming state line, lying west of Colorado State Hwy 13 and east of Moffat county road 3.

LANDSCAPE DESCRIPTION: This allotment is primarily rolling hills, sagebrush grasslands with ephemeral drainages throughout.

CLIMATE/PRECIPIATION SUMMARY: Typical annual precipitation is between 10 and 14 inches with an elevation range of 6,700 to 7,100 feet with average min and max temperatures of 27-60 degrees.

1.3 BACKGROUND

The grazing permit on the Upper Mud Springs #04507, Pole Gulch #04514, and North Great Divide #04548 Allotments was held by the Pilgrim Family, dba, Fourmile Livestock Company LLC for many decades. As a result of the sale of the base property in 2014 from Pilgrim to LR Smith Investments LLC, the three allotments mentioned above were transferred to the purchaser. LR Smith Investments LLC then sold off individual pieces of the historic qualifying base property for the individual allotments to different entities. This resulted in breaking up the above mentioned allotments from the historical livestock operations that utilized all three allotments on an annual deferred/rotation grazing system.

The applicant, McStay Brothers Inc., in February 2015 purchased the portion of qualifying base property with grazing preference attached to the Upper Mud Springs Allotment. McStay

Brothers Inc. holds a grazing permit on the adjacent Middle Timberlake Allotment #04551 to the west.

Until 1998, the Upper Mud Springs Allotment was all one pasture. In 1998, approximately 2.25 miles of fence was built to divide the allotment into two pastures. The east pasture is primarily BLM land and includes the riparian area along Mud Springs Draw. The west pasture is primarily deeded land with isolated parcels of BLM. Three reservoirs were built on the BLM and a well was drilled on the deeded land. There is an additional water well that also provides water in the west pasture.

McStay Brothers Inc. has an intensive livestock rotation/deferment system in their adjacent Middle Timberlake Allotment #04551. The authorization for this allotment, #0501050, was renewed in 2012 (see DOI-BLM-CO-N010-2012-0019-EA) and expires in 2022. The Upper Mud Spring Allotment would not be incorporated into the current grazing system at this time, but would be used in conjunction with the Middle Timberlake grazing system. This approach provides additional pastures to use as needed, which is the primary intention of the proposed long season of use for the Upper Mud Spring Allotment, to provide seasonal flexibility. It is not the intention of the permittee to graze the Upper Mud Spring Allotment for the entire authorized season of use. The percent public lands have been recalculated as a whole for the allotment not pasture specific as the previous authorization shows.

1.4 PURPOSE AND NEED

With the sale of base property and transfer of grazing preference from LR Smith Investments LLC to McStay Brothers Inc. the current applicant (McStay Brothers Inc.) has applied for renewal of the grazing permit to be issued in their name. The transfer of grazing preference associated with the acquisition of qualifying base property is Categorically Excluded from the NEPA process and has been documented via DOI-BLM-CO-N010-2015-0020-CX.

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

In order to graze livestock on public land, the livestock producer (permittee/lessee) must hold a grazing permit/lease. 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.

This action is needed to respond to an application for permit renewal. In addition, this action is needed to eliminate the livestock rotation schedule and terms and conditions from the previously authorized use as all allotments under the previous authorization either have been or are proposed to be authorized separately.

APPLICANT: McStay Brothers Inc.

1.4.1 Decision to be Made

The BLM will decide whether or not to issue a grazing permit and if issued, the terms and conditions grazing would be subject to.

1.5 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

1.6 PUBLIC PARTICIPATION

1.6.1 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. Additionally, the BLM Range Specialist had conversations with the applicant to discuss the renewal of the grazing permit.

Internal Scoping Summary: The renewal of this grazing permit was discussed at the Little Snake Field Office (LSFO) priority meeting on February 23, 2015.

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 Upper Mud Springs Allotment for a period of 10 years expiring on February 28, 2025. The following changes in season of use and livestock numbers would be made to the mandatory terms and conditions of the new authorization. The permit would be renewed as follows:

FROM:

LR Smith Investments, LLC 0504971

Allotment Name & Number	Livestock Number & Kind	Grazing		%PL	AUMs
		Begin	End		
Upper Mud Springs #04507	125 Cattle	6/14	9/10	20	73
	125 Cattle	9/11	10/15	80	<u>115</u>
					Total 188
Pole Gulch #04514	125 Cattle	5/10	6/12	75	105
	290 Cattle	5/15	10/15	75	1,101
	125 Cattle	10/16	11/02	75	<u>55</u>
					Total 1,261
North Great Divide #04548	340 Cattle	5/17	10/27	22	403

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

1) Livestock will be grazed according to the following rotation:

Upper Mud Springs Allotment #04507

Even Years

West Pasture	125 Cattle	6/14	9/10	20	73
East Pasture	125 Cattle	9/11	10/15	80	115

Odd Years

East Pasture	125 Cattle	6/14	7/18	80	115
West Pasture	125 Cattle	7/19	10/15	20	73

Pole Gulch Allotment #04514

2011 through 2013

Timberlake Pasture	290 Cattle	5/15	6/10	75	193
Pole Gulch Pasture	290 Cattle	6/11	10/15	75	908
Crested Pasture	63 Cattle	5/10	6/12	75	53
	63 Cattle	10/16	11/2	75	28
Quealy Pasture	62 Cattle	5/10	6/12	75	52
	62 Cattle	10/16	11/2	75	28

2014 (i.e. every fourth year)

Timberlake Pasture			Rest		
Pole Gulch Pasture	290 Cattle	5/15	10/15	75	1101
Crested Pasture	63 Cattle	5/10	6/12	75	53
	63 Cattle	10/16	11/2	75	28
Quealy Pasture	62 Cattle	5/10	6/12	75	52
	62 Cattle	10/16	11/2	75	28

North Great Divide Allotment #04548

Even Years

Great Divide Pasture	142 Cattle	5/17	10/27	22	168
Vanishing Pasture	198 Cattle	5/17	5/27	22	16
Gold Camp Pasture	198 Cattle	5/28	8/20	22	122
Vanishing Pasture	198 Cattle	8/11	10/27	22	97

Odd Years

Great Divide Pasture	142 Cattle	5/17	10/27	22	168
Vanishing Pasture	198 Cattle	5/17	7/25	22	100
Gold Camp Pasture	198 Cattle	7/26	10/27	22	135

2) The permittee is allowed five (5) days flexibility in pasture movements, including into and out of the allotments, as long as the specified grazing use is not exceeded.

3) Up to 100 horses may be substituted for cattle subject to the following: a. Horse use may be made between the earliest turn out date in May through July 15th or after July 15th through the take out date, but not both in any one year; b. Horses may only be turned out on one allotment

per year, with each allotment being used by horses every third year; c. Horses must follow the above rotations; d. Horse use must never exceed permitted AUMs for any pasture; and e. Horse use must be applied for annually.

TO:

McStay Brothers Inc. 0505403

Allotment Name & Number	Livestock Number & Kind	Grazing		%PL	AUMs
		Begin	End		
Upper Mud Springs #04507	72 Cattle	5/1	11/15	40	188

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

- 1) The East Pasture (riparian) can only be used before 07/01 on even years, and when used early, prior to 07/01, the East Pasture must be rested between 07/01 and 08/15.
- 2) The permittee is allowed five (5) days flexibility for allotment on and off dates as long as the specified grazing use is not exceeded.

Drought Management

The forage allocation on the above permit reflects forage available for livestock during years of average or above average precipitation. During periods of regional drought, the amount of available forage on the allotments may not be sufficient to provide for all or part of the livestock demand and still provide forage and cover for wildlife and for soil protection. Identification of drought and the description of appropriate responses are listed in Attachment 3. Drought Management Actions (DRA) would not be attached to the grazing permit, but rather analyzed here so, if necessary, the analysis of them in this document may be used as a basis for issuing a grazing decision in response to drought conditions. As the Drought Management protocol described in Attachment 3 is comprehensive not all drought triggers or DRA described may be applicable for all allotments.

2.2.2 No Grazing Alternative

The application for renewal of the grazing authorization on Upper Mud Springs Allotment #04507 would be denied. As a result, livestock grazing would not be authorized. The BLM would initiate a process in accordance with the 43 CFR 4110.3 regulations to remove authorized grazing as applied for and analyzed in this EA.

2.2.3 Alternatives Considered But Not Analyzed

A No Action Alternative was considered and eliminated, as this would be impossible to implement without all three previously authorized allotments renewed under one authorization. The previous authorization was based on a grazing system that included three allotments. That grazing system is no longer functional as the individual allotments have been/proposed to be authorized to different operators. A Reduced Grazing Alternative was considered but eliminated as all land health standards are being met and no resource concerns validate further consideration

and analysis of a Reduced Grazing Alternative.

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	Specialist Initials	Date
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.	ML	02/18/2015
NP	Floodplains	There are no 100 year floodplains within the Upper Mud Springs Allotment.	ML	03/25/15
NI	Hydrology, Ground	There are no wells or other projects proposed that would have an effect on ground water hydrology.	ML	04/02/15
PI	Hydrology, Surface	See Section 3.2.2 for analysis.	ML	04/02/15
NP	Minerals, Fluid	There are no fluid mineral authorizations in the project area.	JM	04/02/15
NP	Minerals, Solid	There are no solid mineral authorizations in the project area.	JM	02/23/15
PI	Soils	See Section 3.2.1 for analysis.	ML	04/02/15
NI	Water Quality, Ground	Surface disturbances such as livestock grazing and associated activities would have no affect to ground water quality.	ML	03/25/15
PI	Water Quality, Surface	See Section 3.2.2 for analysis.	ML	03/25/15

Biological Resources				
PI	Invasive, Non-native Species	See Section 3.3.1 for analysis	CR	03/12/15
PI	Migratory Birds	See Section 3.3.2 for analysis	SW	03/05/15
PI	Special Status Animal Species	See Section 3.3.3 for analysis	SW	03/12/15
NP	Special Status Plant Species	There are no federally listed threatened, endangered, or BLM sensitive plant species populations present on this allotment.	ARH	03/09/15
PI	Upland Vegetation	See Section 3.3.4 for analysis	ML	03/02/15
PI	Wetlands and Riparian Zones	See Section 3.3.5 for analysis	ML	03/25/15
NI	Wildlife, Aquatic	The allotment does not provide habitat for fish species, but streams, springs, and ponds and the associated riparian vegetation provide potential habitat for small amphibians and other aquatic wildlife. These habitats are in good condition, providing suitable and productive habitat for aquatic wildlife. These conditions would be expected to continue under the either alternative.	SW	03/05/15
PI	Wildlife, Terrestrial	See Section 3.3.6 for analysis	SW	03/12/15
NP	Wild Horses	There is no HMA within or near the allotment.	ML	02/18/15
Heritage Resources and the Human Environment				
PI	Cultural Resources	See Section 3.4.1 for analysis	BN	03/30/15
NI	Environmental Justice	According to Census 2012, the only minority population of note in the impact area is the Hispanic community of Moffat County. Hispanic or Latino represented 14.2% of the population, considerably less the Colorado state figure for the same group, 21.0%. Blacks, American Indians, Asians and Pacific Islanders each accounted for around 1% of the population, below the comparable state figure in all cases. The census counted 12% of the Moffat County population as living in families with incomes below the poverty line, compared to 12.9% for the entire state. Both minority and low income populations are dispersed throughout the county therefore no minority or low income populations would suffer disproportionately high and adverse effects as a result of any of the alternatives.	LM	02/27/15
NI	Hazardous or Solid Wastes	There are no known Hazardous or Solid Waste issues or concerns on the allotment.	ML	02/18/15

NP	Lands with Wilderness Characteristics	Subject to WO-IM 2011-154 and in accordance with BLM policy, the Proposed Action is in an area that did not meet the minimum size requirements for inventory finding of the presence of lands with wilderness characteristics.	GR	03/02/15
NP	Native American Concerns	See Section 3.4.2 for analysis.	BN	03/30/15
NI	Paleontological Resources	The proposed grazing action would have no impacts to paleontological resources.	JM	02/23/15
NI	Social and Economic Conditions	There would not be any change to local social or economic conditions under any of the alternatives.	LM	02/27/15
NI	Visual Resources	The Proposed Action is 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. Visual Resource Inventory is low based on Scenic Quality Rating of C and Sensitivity Level Rating of Low. No impacts to visual resources would be anticipated for all alternatives.	GR	03/02/15
Resource Uses				
NI	Access and Transportation	There would be no foreseeable impacts to Access and Transportation from the Proposed Action or alternatives. Permittee would be limited to existing or designated roads unless otherwise authorized.	DA	03/03/15
NI	Fire Management	There would be no impact to Fire Management with selection of either alternative.	ML	04/02/15
NP	Forest Management	There are no forestry resources in the allotment.	ML	02/18/15
NI	Livestock Operations	There would be beneficial impacts to the applicants operation with additional grazing lands.	ML	02/18/15
NP	Prime and Unique Farmlands	There are no soils classified as Prime Unique Farmlands in the Upper Mud Springs Allotment.	ML	04/02/15
NI	Realty Authorizations, Land Tenure	All alternatives would have no impact to existing realty authorizations. There are no proposed changes to land tenure in the project area.	LM	02/27/15
NI	Recreation	There would be no impacts to recreation from the Proposed Action or alternatives.	DA	03/03/15
Special Designations				
NP	Areas of Critical Environmental Concern	There are no ACECs within or in close proximity to the Upper Mud Spring Allotment #04507.	GR	03/02/15
NP	Wild and Scenic Rivers	There are no WSRs within or in close proximity to the Upper Mud Spring Allotment #04507.	GR	03/02/15
NP	Wilderness Study Areas	There are no WSAs within or in close proximity to the Upper Mud Spring Allotment #04507.	GR	03/02/15

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: The table below (Table 1) describes the major soil groups included within the Upper Mud Springs Allotment.

Table 1. Soil Summary

Soil Map Unit (MU) & Soil Name (Acres in Allotments)	Map Unit Setting	Description
MU 107 Ironsprings-Maysprings-Gretdivid complex, 10 to 20% slopes Upper Mud Springs: 480 acres	<u>Elevation:</u> 6,800 to 7,300 feet <u>Mean annual precipitation:</u> 13 to 15” <u>Ecological Site:</u> Sandyland	These hillslope soils are well drained to somewhat excessively drained with moderate to moderately rapid permeability and medium runoff potential. Available water capacity is low and the soil profile is typically up to 60 inches deep.
MU 130 Maysprings coarse sandy loam, 3 to 12 % slopes Upper Mud Springs: 490 acres	<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.
MU 131 Maysprings-Gretdivid complex, 10 to 20% slopes Upper Mud Springs: 1470 acres	<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 up to 60 inches deep.
MU 15 Berlake-Taffom-Gretdivid complex, 10 to 20% slopes Upper Mud Springs: 569 acres	<u>Elevation:</u> 6,200 to 7,300 feet <u>Mean annual precipitation:</u> 13 to 15” <u>Ecological Site:</u> Deep Loam/Rolling Loam/ Sandyland	These soils are well drained with moderate permeability and medium runoff potential. Available water capacity is low to moderate and the soil profile is typically up to 60 inches deep.
MU 184 Styers-Pinelli-Taffom complex, 10 to 25% slopes Upper Mud Springs: 604 acres	<u>Elevation:</u> 6,200 to 7,300 feet <u>Mean annual precipitation:</u> 11 to 13” <u>Ecological Site:</u> Claypan/Clayey Foothills/Rolling Loam	These hill soils are well drained with very slow to moderate permeability and medium to very high runoff potential. Available water capacity is low to high and the soil profile is typically 28 to 60 inches deep.
MU 185 Taffom sandy loam, 3 to 15% slopes Upper Mud Springs: 471 acres	<u>Elevation:</u> 6,700 to 7,000 feet <u>Mean annual precipitation:</u> 11 to 13” <u>Ecological Site:</u> Rolling Loam	These 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.

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

Environmental Consequences, Proposed Action: Soils in the Upper Mud Springs Allotment are very stable and native vegetative cover and vigor is good. The majority of the soils within the allotment can generally be described as sandy loams and are the least susceptible to disturbance and wind/water erosion when wet or moist (late fall/early spring). Given the overall good condition of the vegetation within the allotment and the stocking rate, the Proposed Action 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 maintain litter and sustain appropriate water permeability. In the event of drought the appropriate DRAs would assure no additional drought related impacts to soils would occur.

Environmental Consequences, No Grazing Alternative: There would be no effect.

Environmental Consequences, Cumulative Impacts: Past, present, and reasonably foreseeable actions that affect soils in area surrounding Upper Mud Springs Allotment primarily include ranching, recreation, domestic energy exploration and development, and the infrastructural development necessary to support these 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, otherwise there is no known future land use changes in the general area that would have a cumulative impact.

With the appropriate DRAs public land grazing associated with drought would be authorized/ or temporarily suspended to the level necessary that prevents any present or reasonably foreseeable cumulative impacts.

3.2.2 Water Quality-Surface

Affected Environment: Surface runoff from the Upper Mud Springs Allotment flows primarily into Mud Spring Draw, a tributary to Fourmile Creek which flows into the Little Snake River.

Water quality for all tributaries of the Little Snake River below its confluence with Fourmile Creek is use protected and must support Aquatic Life Warm 2, Recreation N, and Agricultural uses. There are no water quality impairments or suspected water quality issues for waters influenced by this allotment.

Environmental Consequences, Proposed Action: There would be no effect; surface waters present within the allotment are currently supporting classified uses. Permitting livestock grazing as proposed would not compromise soil stability and vegetation community health given the good condition of the vegetation within the allotment. In the event of drought the appropriate DRAs would assure no additional drought related impacts to surface water quality would occur.

Environmental Consequences, No Grazing Alternative: There would be no effect.

Environmental Consequences, Cumulative Impacts: Permitting livestock grazing as proposed is consistent with land uses throughout the watershed and would not result in changes to water quality in the present or reasonable foreseeable future.

With the appropriate DRAs public land grazing associated with drought would be authorized/ or temporarily suspended to the level necessary that prevents any present or reasonably foreseeable cumulative impacts.

3.3 BIOLOGICAL RESOURCES

3.3.1 Invasive/Non-Native Species

Affected Environment: Invasive plant species and noxious weeds occur within the affected area. Downy brome, Canada thistle, musk thistle, scotch thistle, white top and leafy spurge occur within or near this allotment. Other species of noxious weeds could be introduced by vehicle traffic, livestock, wildlife, recreation and other means of dispersal. Principals of Integrated Pest Management (IPM) 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. 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.

Environmental Consequences, Cumulative Impacts: Under the Proposed Action weed infestation and dispersal through livestock transport may increase on a potential of 1,216 acres of BLM land and 657 acres of BLM LU land. This increased risk would be an acceptable level as managed under the grazing permit.

3.3.2 Migratory Birds

Affected Environment: Vegetation on the allotment is primarily a sagebrush/grass community and areas of seeded crested wheatgrass. A variety of migratory birds may utilize this habitat during the nesting period (May through July) or during spring and fall migrations. The area contains potential nesting and/or foraging habitat for the following USFWS 2008 Birds of

Conservation Concern: bald eagle, Brewer's sparrow, sage sparrow, sage thrasher, loggerhead shrike, golden eagle, and ferruginous hawk.

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 impacts bird species due to changes in vegetation such as species composition, height or cover. The Proposed Action with the limited amount of authorized grazing and the use of two pastures would allow for ample growing season rest and adequate plant recovery periods. This would not adversely impact the health of the vegetative community. The Proposed Action would be compatible with maintaining healthy migratory bird habitats.

In the event of drought, the appropriate DRAs would minimize drought related impacts to wildlife habitats and natural resources. This alternative would be compatible with maintaining healthy migratory bird habitat.

Environmental Consequences, No Grazing Alternative: This alternative would lead to increases/improvements in vertical structure, composition and density of herbaceous understory on the allotment. Benefits associated with livestock removal would be most expected in those areas that currently experience concentrated livestock use (such as the one water source on public land within this allotment). Response by migratory birds to vegetative changes would depend on the species and would likely provide the greatest benefit to ground and low shrub nesters.

Environmental Consequences, Cumulative Impacts: The primary use of the allotment and the surrounding area is livestock grazing and big game hunting. Continuation of grazing would not add substantially to existing or proposed disturbances. The Proposed Action would maintain adequate habitat for migratory bird species. With the appropriate DRAs, public land grazing associated with drought will be authorized/ or temporarily suspended to the level necessary that prevents any present or reasonably foreseeable cumulative impacts.

3.3.3 Special Status Animal Species

Affected Environment: There are no federally listed or proposed species that inhabit or derive important benefit from habitats in the general area.

The allotment and surrounding area provide important habitat for greater sage-grouse, a BLM sensitive species and a candidate for listing under the Endangered Species Act. In 2012, Colorado Parks and Wildlife updated greater sage-grouse mapping to include Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH). Areas 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. This allotment lies entirely in PPH.

There are two active leks along the boundary of the allotment and an additional six leks within a 4-mile radius of the allotment perimeter. Reproductive functions (breeding, nesting and brood-rearing) are considered the most important grazing-related aspect of sage-grouse biology. In

general, broods would appear from late May to early June. Both Mud Spring Draw, in the allotment, and Timber Creek Draw just to the north provide brood rearing habitat. The allotment also provides winter habitat for greater sage-grouse.

The Upper Mud Springs Allotment is meeting Land Health Standards and adequate cover for nest concealment in the form of new growth and residual cover was present during allotment visits in May and June of 2010. Riparian habitats were also found to be in good condition and providing suitable brood rearing habitat for sage-grouse.

The allotment also provides habitat for three other BLM sensitive species: Brewer's sparrow, Columbian sharp-tailed grouse, and ferruginous hawk.

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 would likely be nesting either on or in the vicinity of the allotment from mid-May through mid-July.

The area is on the western fringe of Columbian sharp-tailed grouse habitat, but sagebrush and mixed mountain shrub lands in the Upper Mud Springs Allotment still provides some winter habitat for this species. There is one sharp-tailed grouse lek ~1.25 miles south of the allotment.

Colorado provides both winter and summer habitat for ferruginous hawks. Habitat for this hawk consists of open grasslands or shrub lands. Nests are usually constructed in trees or rock outcrops and prey consists of small mammals, such as ground squirrels or cottontail rabbits. Several ferruginous hawk nests have been identified in the vicinity of the allotment.

Environmental Consequences, Proposed Action:

Greater sage-grouse

The season of livestock use coincides with sage-grouse nesting in this allotment. Grazing during the nesting season has some potential to result in trampling of nests or disturbance of nesting females. At the proposed stocking rate, the risk of nest destruction would be relatively low. 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.

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 and limited authorized use would help maintain healthy ecosystems. Sagebrush stands in the allotment exist in several seral stages. There are many areas of dense, taller shrubs that would provide potential nesting habitat for this

species. Overall, sagebrush habitats on the allotment are in good condition and this would continue under the Proposed Action.

Columbian sharp-tailed grouse

The allotment is on the western fringe of sharp-tailed habitat and provide limited habitat for this species. A portion of the Upper Mud Springs Allotment is classified as winter habitat. Sharp-tailed grouse utilize areas where shrubs and other vegetation protrude through the snow in the winter months. Livestock numbers would be low and the allotment would not be grazed during the entire growing season. This grazing system allows for adequate plant recovery and would maintain healthy sagebrush and mountain shrub ecosystems. The proposed grazing would be compatible with sharp-tailed grouse habitat requirements.

Ferruginous hawk

The continuation of cattle grazing would have minimal impacts to ferruginous hawks. Grazing that promote healthy vegetative communities and provide suitable habitat for prey species would maintain ferruginous hawk habitat. Currently, the allotment has a good mosaic of seral stages in sagebrush habitats. This gives prey species enough cover and forage to maintain populations, and provides hawks with enough open areas to successfully hunt. One effect is impacts to nest trees. Often, there are limited trees in sagebrush habitats and cattle usually congregate in the shade around these trees. This may eliminate the few suitable nest trees or disturb actively nesting hawks.

The continuation of grazing would not adversely impact the health of the plant community with grazing managed as proposed. In the event of drought the appropriate DRAs would minimize drought related impacts to wildlife habitats and natural resources. This alternative would be compatible with maintaining healthy habitats for these BLM Special Status Species.

Environmental Consequences, No Grazing Alternative: This alternative would lead to minimal increases/improvements in vertical structure, composition and density of herbaceous understory on the allotment as a whole. Benefits associated with livestock removal would be most expected in those areas that currently experience concentrated livestock use such as the lone water source on public lands within the allotment.

Environmental Consequences, Cumulative Impacts: The primary use of the allotment and the surrounding area is livestock grazing and big game hunting. Continuation of grazing would not be expected to add substantially to existing or proposed disturbances. The Proposed Action would maintain vegetative conditions for these species. With the appropriate DRAs, public land grazing associated with drought would be authorized/ or temporarily suspended to the level necessary that prevents any present or reasonably foreseeable cumulative impacts.

References Cited

- Holmes, Jennifer A. and Johnson, Matthew J.
2005 Brewer's Sparrow (*Spizella breweri*): A Technical Conservation Assessment
Ecosphere Environmental Services, Durango, CO

3.3.4 Upland Vegetation

Affected Environment: Vegetation on the allotment is primarily sagebrush/grass communities. Dominant shrubs include Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), basin big sagebrush (*A. tridentata tridentata*), and green rabbitbrush (*Chrysothamnus viscidiflorus*). Other shrubs present include serviceberry (*Amelanchier alnifolia*), snowberry (*Symphoricarpos albus*), and antelope bitterbrush (*Purshia tridentata*). Grasses include needle-and-thread (*Stipa comata*), prairie junegrass (*Koeleria pyramidata*), Indian ricegrass (*Oryzopsis hymenoides*), western wheatgrass (*Agropyron smithii*), squirreltail (*Sitanion hystrix*), native bluegrasses (*Poa* spp.), and cheatgrass (*Bromus tectorum*). Parts of the allotment were plowed and reseeded to crested wheatgrass (*Agropyron cristatum*) many years ago.

Environmental Consequences, Proposed Action: There would be no adverse impacts. The limited amount of AUM's available dictate that grazing within the proposed season of use would either constitute a larger number of livestock for a short period of time or a small number of livestock for an longer period of time. Either way, livestock use on public lands will be nominal and with the ability to use different pastures the current conditions of upland vegetation on the allotment provide the resilience and vigor required to maintain healthy and diverse vegetation while sustaining the proposed grazing regime. In the event of drought the appropriate DRAs would assure no additional drought related impacts to upland vegetation would occur.

Environmental Consequences, No Grazing Alternative: Discontinuing livestock grazing on the allotment would result in reduced herbivory throughout the plant community. Wildlife use would continue and elk, whose dietary overlap with cattle is considerable, would continue to use the allotment. Additional concentrated use near seasonal water sources would likely still continue and non-native plant species would still be present with the potential to increase.

Environmental Consequences, Cumulative Impacts: All facets of the plant community on the allotment are affected by climate, wildlife, and direct disturbance through the presence of roads and other physical facilities both within and adjacent to the allotment. Past agricultural practices and recreation use have and would continue to affect the vegetation community within the allotment. When added to the existing activities in and adjacent to the Upper Mud Spring Allotment, approval of the Proposed Action would not cause undue damage to upland vegetation in relation to past, current and foreseeable future land uses in the general area. With the appropriate DRAs, public land grazing associated with drought would be authorized/ or temporarily suspended to the level necessary that prevents any present or reasonably foreseeable cumulative impacts.

3.3.5 Wetland and Riparian Zones

Affected Environment: Riparian resources within the allotment are described below:

Upper Mud Springs Allotment

Mud Springs Draw is the main ephemeral stream that bisects the east end of the allotment. There are numerous lentic (wetland/spring) areas within this drainage.

Condition Assessment	Wetlands/Springs (acres)	Streams (miles)
Proper Functioning Condition	0.1	1.7
Functioning At Risk – condition improving	0	0.2
Functioning At Risk – no trend in condition	0.1	0.6
Not Assessed	4 springs (no acres calculated)	0
TOTAL	0.1	2.5

Environmental Consequences, Proposed Action: There would be no adverse impact; the limited amount of available AUMs in the allotment dictates that authorized grazing would be nominal. In addition, the majority of riparian resources lie within the fenced east pasture where livestock numbers and duration can be controlled to limit livestock use of the riparian areas.

Environmental Consequences, No Grazing Alternative: Any livestock impacts to riparian areas would be eliminated.

Environmental Consequences, Cumulative Impacts: Continuation of livestock grazing under the Proposed Action would not degrade riparian conditions and is consistent with historical and current land uses in the general area. With no reasonable foreseeable changes of land use in the general area there would be no cumulative impacts. With the appropriate DRAs public land grazing associated with drought would be authorized/ or temporarily suspended to the level necessary that prevents any present or reasonably foreseeable cumulative impacts.

3.3.6 Wildlife, Terrestrial

Affected Environment: Plant communities within the allotment are comprised primarily of sagebrush stands with an understory of grasses and forbs. Snowberry, serviceberry and bitterbrush are also present on the Upper Mud Springs Allotment.

The allotment provides winter habitat for elk, mule deer and pronghorn; the eastern half of the allotment provides severe winter range for elk and pronghorn severe winter range runs just to the north.

A variety of wildlife habitats and their associated species occur in the general area. Common species such as golden eagles, coyotes, cottontail rabbits, and ground squirrels likely use these habitats

Environmental Consequences, Proposed Action: The vegetative community in the area exhibits appropriate diversity, vigor, and reproductive capacity. These conditions would continue under the Proposed Action. Since the stocking rate on the allotment is relatively low, increased competition for forage resources between livestock and big game is not expected. Livestock grazing may affect raptor populations if changes in vegetation are substantial enough to elicit considerable changes in the populations of the small mammal prey base.

The Proposed Action would be compatible with maintaining healthy habitat for terrestrial wildlife species. Following the 50% utilization limit, continuation of the current grazing practices in the allotment would maintain habitat for wildlife. The allotment is currently meeting land health standards. In the event of drought the appropriate DRAs would minimize drought related impacts to wildlife habitats and natural resources.

Environmental Consequences, No Grazing Alternative: This alternative would lead to increases/improvements in vertical structure, composition and density of herbaceous understory on the allotment as a whole. 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.

3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

3.4.1 Cultural Resources

Federal agencies are mandated by various laws to consider the effect of proposed land use activities on cultural resources (i.e. prehistoric and historic sites). The National Historic Preservation Act (NHPA) requires federal agencies to take into account the effect of federal undertakings on cultural resources that are eligible for inclusion on the National Register of Historic Places (NRHP). In Colorado, the requirements of the NHPA are implemented under the terms of the Protocol Agreement between the Bureau of Land Management and the State Historic Preservation Officer (SHPO).

Affected Environment: Little on-the-ground survey for cultural resources has taken place within the grazing allotment. However, the kinds of sites that could be present may be suggested based on previous surveys completed in the portion of the Wyoming Basin within which the allotment is situated. Common types of Native American sites include scatters of flaked stone artifacts (so-called “lithic scatters”), as well as campsites. The later site type is commonly also denoted by a scatter of flaked stone artifacts, but also demonstrates some evidence of habitation or food processing, such as the presence of fire hearths or ground stone artifacts commonly used to grind seeds and other plant foods. Historic sites of Euroamerican affiliation that potentially could occur within the allotment are most likely those associated with use of the area for ranching. Some historic placer gold mining also took place in the general area.

Grazing permit renewals are considered undertakings under Section 106 of NHPA. During Section 106 review, a cultural resource assessment was completed for the allotment by Little Snake Field Office archaeologist Brian Naze on March 27, 2015 following the guidance outlined in Instruction Memorandum CO-2002-029. The results of the assessment are summarized in the following tables and further discussed in the text.

Allotment Name & Number	Acres of BLM or LU Land Thoroughly Inventoried (at the Class III Level)	Acres of BLM or LU Land Not Thoroughly Inventoried at a Class III Level	Percent -%- of BLM Acres in Allotment Inventoried at a Class III Level	Number of Important Cultural Resources on BLM Land Known in Allotment	High Potential for Historic or Archaeological Sites ? (Yes / No)	Management Recommendations (Additional Inventory Required and Sites to be Visited)
Upper Mud Spring 04507	52 (estimate)	1,821	3%	0	No	See text and following table

A number of small-scale surveys intended to identify sites in advance of planned construction or other surface disturbing activity has been completed on the tracts of public land in the grazing allotment. The surveys were carried out prior to construction of livestock reservoirs, a pasture fence, and seismic lines related to exploration for oil and gas. With one exception, survey results were negative.

One of the surveys located the only site presently known to exist within the grazing allotment. The site is a prehistoric camp on a ridge this is recorded as 5MF2009. A very sparse scatter of surface artifacts was noted that included debris from stone tool manufacture, an Archaic or Late Prehistoric projectile point, and a ground stone artifact (a mano). The site was determined to be not eligible to the NRHP.

In accordance with IM CO-2002-029, areas where livestock congregate around water sources were identified for future thorough, pedestrian cultural resource survey (Class III inventory) in order to identify any important sites and determine if they are being affected by livestock grazing. Area archaeologist Brian Naze reviewed USGS 7.5' topographic maps, and with the assistance of Rangeland Management Specialist Mark Lowrey, paper and automated records in the range department were reviewed to identify livestock water sources within the allotment that have yet to be inventoried for cultural resources.

As detailed in the table below, substantial areas within the grazing allotment have a source of water for livestock present, but have not been surveyed for cultural resources. Water sources not yet inventoried include a livestock reservoir constructed in 1963 (prior to the enactment of the NHPA), as well as 10 springs. Prehistoric sites are often located in the vicinity of springs, therefore, additional cultural resource survey is justified. Suggested survey areas total about 123 acres (see table below). IM CO-2002-029 directs that needed cultural resource surveys be completed within the maximum 10-year renewal period of a grazing permit.

Livestock Watering Holes to be Surveyed for Cultural Resources

Livestock Water Source (Type, Name)	Legal Description	Approximate Acres to be Surveyed	Comments
livestock reservoir	T 10 N, R 91 W, Section 18, SW 1/4	7	constructed in 1963
one spring	T 10 N, R 91 W, Section 6	6	located in the Timberlake Creek drainage
nine springs	T 10 N, R 91 W, Sections 9 and 16	110	multiple springs are located in the drainage of Mud Spring Draw

Environmental Consequences, Proposed Action: Potential impacts to cultural resources from livestock grazing include both direct and indirect impacts. The direct impacts that occur where livestock concentrate include trampling and churning of site soils, cultural features, and artifacts. Other direct effects include breakage of surface artifacts and impacts from livestock leaning and rubbing against historic structures. Potential indirect impacts include damage to sites from increased soil erosion in heavily grazed areas adjacent to watering holes that can result in the formation of gullies or deeply incised livestock trails. Also, decreased vegetation in heavily grazed areas could increase the potential for unauthorized artifact collecting due to increased site visibility.

Environmental Consequences, No Grazing Alternative: None.

Environmental Consequences, Cumulative Impacts: Continued grazing can cause substantial ground disturbance in places where livestock concentrate around water sources. This in turn can cause cumulative adverse effects to important sites that may be present.

Mitigation: If future cultural resource survey identifies eligible sites that are being adversely affected by livestock grazing, measures designed to stop or mitigate the impact would be developed and implemented. Potential mitigation measures for prehistoric sites could include fencing off sites, excavating buried archaeological features that are being eroded as a result of livestock grazing, etcetera.

3.4.2 Native American Concerns

A number of laws direct federal land managing agencies to consider the views of Native Americans as part of the process of making land use decisions. Section 106 of the National Historic Preservation Act requires federal agencies to consult with Native Americans regarding the effect of federal undertakings on sites that may be of cultural or religious importance to Indian people to ensure that tribal values are taken into account to the extent feasible. Federal land managing agencies are directed by the American Indian Religious Freedom Act to facilitate access to sites on public land that are of importance to those practicing traditional native religions.

Affected Environment: In historic times, the Little Snake field area was inhabited by the Utes and the Shoshone. The kinds of sites that are known to be of concern to the historic tribes include burials, possible vision quest sites, rock art sites, wickiups, and sites with tipi rings.

Environmental Consequences, Proposed Action: Based on available evidence, the above kinds of sites are not known to exist within the grazing allotment. Therefore, livestock grazing within the allotment is not expected to impact sites that would be of concern to the historic tribes that inhabited northwest Colorado.

Environmental Consequences, No Grazing Alternative: None

Environmental Consequences, Cumulative Impacts: None

CHAPTER 4– PUBLIC LAND HEALTH STANDARDS

4.1 INTRODUCTION

Upper Mud Spring Allotment #04507

This allotment was assessed in 2003 as part of the Fourmile Creek Watershed Assessment by a BLM Interdisciplinary Team, which included Rangeland Management Specialists, Wildlife Biologists, and Hydrologist. Overall the watershed met all standards except for: Standard 3 Healthy, productive plant and animal communities, 6 out of 34 sites visited did not meet this standard. This was attributed to historic grazing, wildfire, and lack of wildfire in some areas. The representative site within the Upper Mud Springs Allotment met all standards.

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 assessments: This standard is met.

Proposed Action: Given the good condition of the vegetation within the allotment and the proposed stocking rates, the Proposed Action 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 maintain litter and sustain appropriate water permeability. This standard is met and would continue to be met with implementation of the Proposed Action. In the event of drought, appropriate DRAs would assure this standard is maintained and would continue to be met.

No Grazing Alternative: Removing livestock from public lands would generally improve soil conditions within the allotment. This standard would 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 assessments: This standard is met.

Proposed Action: All riparian resources within the allotment are currently meeting public land health standard for riparian systems. This would not change under the Proposed Action. In the event of drought, appropriate DRAs would assure this standard is maintained and would continue to be met.

No Grazing Alternative: This standard would continue 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 assessments: This standard is met.

Proposed Action: Within the Upper Mud Springs Allotment, plant communities are vigorous, diverse, and providing adequate cover, forage, and nutrient cycling. Invasive species are at a minimum and communities have the components in place to be resilient to disturbances such as grazing and fire. This standard would continue to be met with the implementation of the Proposed Action. In the event of drought, appropriate DRAs would assure this standard is maintained and would continue to be met.

No Grazing Alternative: Removal of livestock grazing would allow plant and animal 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 assessments: This standard is met.

Proposed Action: This allotment provide habitat for greater sage-grouse, a BLM sensitive species and a candidate for listing under the Endangered Species Act. The allotments provide habitat for three additional BLM sensitive species: Columbian sharp-tailed grouse, ferruginous hawk, and Brewer's sparrow. Sagebrush and grass communities on the allotment are in good condition, providing suitable habitat for all three species. This standard would continue to be met under the Proposed Action. In the event of drought, appropriate DRAs would assure this standard is maintained and would continue to be met.

No Grazing Alternative: This standard would continue to be met.

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 assessments: This standard is met.

Proposed Action: Livestock grazing as proposed is consistent with land uses throughout the watershed and would not result in changes to water quality. Surface waters present within the allotment are currently supporting classified uses and there are no water quality impairments or suspected water quality issues for waters influenced by the project area considered in the Proposed Action. In the event of drought, appropriate DRAs would assure this standard is maintained and would continue to be met.

No Grazing Alternative: this standard would continue to be met. The potential for direct and indirect impacts to downstream water quality caused by livestock use, including any potential for sedimentation, is eliminated under this alternative.

SIGNATURE OF PREPARER: *MM Punny*

DATE SIGNED: *5/4/15*

SIGNATURE OF ENVIRONMENTAL REVIEWER: *Kathy McKinstry*

DATE SIGNED: *May 5, 2015*

Finding of No Significant Impact

Based upon a review of the EA 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 Resource Management Plan and Record of Decision (2011). Therefore, 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 include: 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 has 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.

2. Degree of effect on public health and safety:

There would be no effect to 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 information about the EA was posted in the NEPA document log on the Internet, at the Colorado BLM LSFO Home Page. Communication with the lessee and partners was extensive during the renewal process and information was taken into consideration.

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.

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

The Biological Assessment prepared to analyze the effects of the proposed action on threatened and endangered species within the allotment determined that this proposed action "May Affect, Not Likely to Adversely Affect" the Colorado pikeminnow and ute ladies'-tresses orchid. The US Fish and Wildlife Service concurred with this determination.

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.

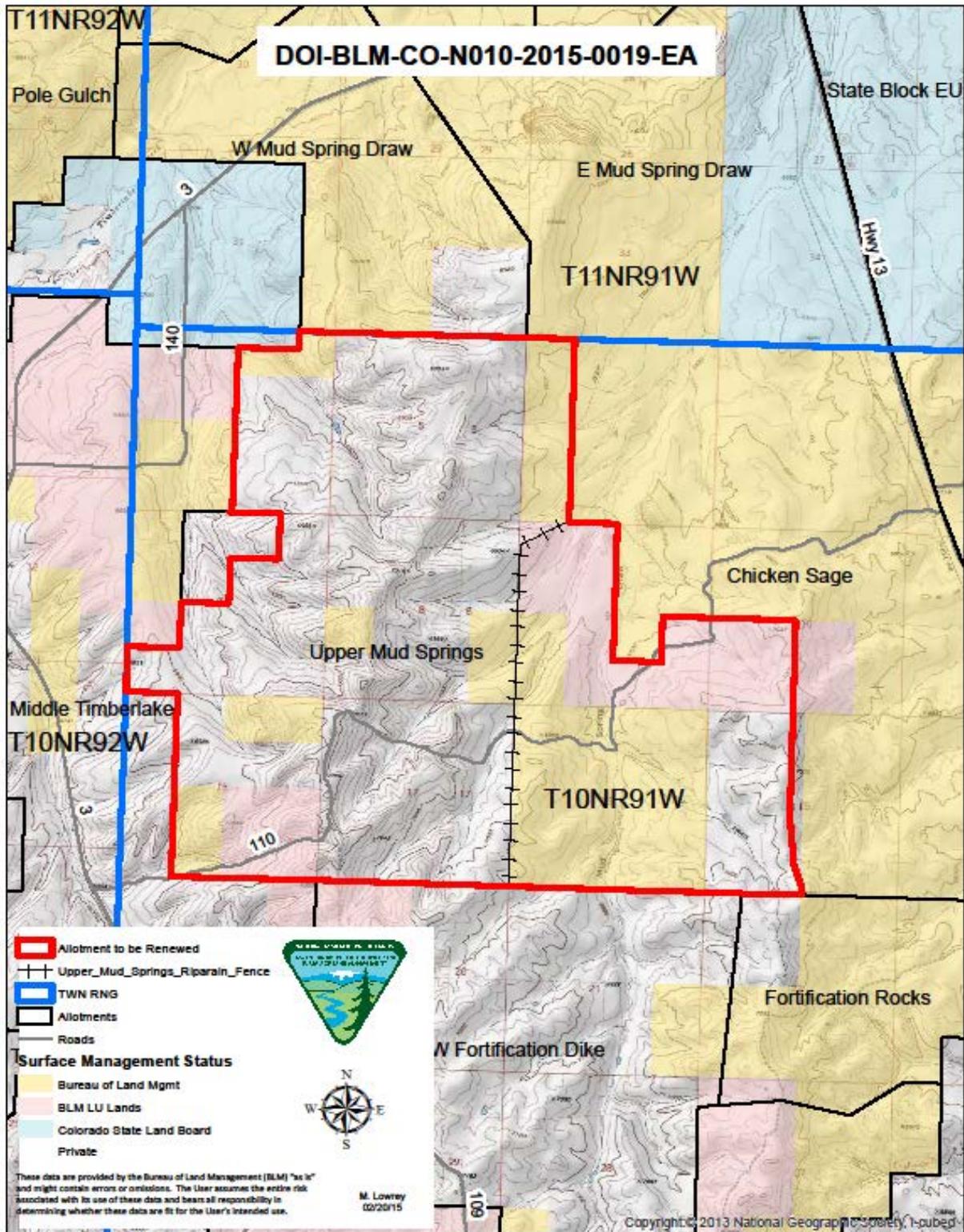
SIGNATURE OF AUTHORIZED OFFICIAL:



DATE SIGNED:

5/29/15

ATTACHMENT #1



ATTACHMENT #2
DOI-BLM-CO-N010-2015-0019-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 ensure that no more than 50% of the key grass species and 40% of the key browse species current years growth, by weight, is utilized at the end of the grazing season for winter allotments and the end of the growing season for allotments used during the growing season. Application of this term needs to recognize recurring livestock management that includes opportunity for regrowth, opportunity for spring growth prior to grazing, or growing season deferment.
- C) Failure to maintain range improvements to BLM standards in accordance with signed cooperative agreements and/or range improvement permits may result in the suspension of the annual grazing authorization, cancellation of the cooperative agreement or range improvement permit, and/or the eventual cancellation of this permit/lease.
- D) Salt and/or other mineral supplements shall be placed at least one-quarter mile from water sources or in such a manner as to promote even livestock distribution in the allotment or pasture.
- E) Pursuant to 43 CFR 10.4(g), the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

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

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

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

- F) No hazardous materials/hazardous or solid waste/trash shall be disposed of on public lands. If a release does occur, it shall immediately be reported to this office at (970) 826-5000.
- G) The permittee/lessee shall provide reasonable administrative access across private and leased lands to the BLM and its agents for the orderly management and protection of public lands.
- H) Application of a chemical or release of pathogens or insects on public lands must be approved by the authorized officer.
- I) The terms and conditions of this permit/lease may be modified if additional information indicates that revision is necessary to conform with 43 CFR 4180.

ATTACHMENT #3
DOI-BLM-CO-N010-2015-0019-EA
Drought Management
Indicators, Triggers, and Responses

Drought Indicators

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

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

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

Drought Triggers

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

1. Water

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

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

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

2. Forage

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

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

-Utilization and Stubble Height

Utilization triggers were developed using the utilization guidelines proved by Holechek et al. (1988). The guidelines provide a range of use associated with rangeland condition. For the purpose of grazing management during times of drought, the BLM has chosen to limit utilization of key species to the lower utilization level. The lower utilization levels are consistent with those suggested for ranges in poor condition. These were chosen due to the reduced vigor and production of range forage plants resulting from drought. The following utilization levels would function as drought response triggers within each respective vegetation community and would trigger the implementation of DRAs. Stubble height triggers were developed to ensure adequate residual matter remains to maintain riparian plant communities. Generally, stubble heights of 4 to 6 inches provide effective stream bank protection, prevent sedimentation, and maintain or improve plant communities. Key species would be identified using the ESD for a specific area. In instances where key species referenced in the ESD are absent key species would be identified using site-specific and/or existing monitoring data.

- 25 % utilization of key species. -**Sagebrush Grassland**
- 30% Utilization of key species. -**Riparian Zones**
- Four inch stubble height of key riparian species.

-Plant Production and/or Drought Stress

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

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

Drought Responses

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

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

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

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

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

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

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

-Temporary Complete Closure of the Allotment

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

-Temporary Partial Reduction in Animal Unit Months (AUMs)

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

-Temporary Change in Season of Use

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

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

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

-Temporary Reduced Grazing Duration

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

longer. Reducing the duration of grazing would provide plants more time to recover after grazing pressure is removed.