U.S. Department of the Interior
Bureau of Land Management
Little Snake Field Office
455 Emerson Street
Craig, CO 81625-1129

ENVIRONMENTAL ASSESSMENT

EA NUMBER: DOI-BLM-CO-N010-2012-0032

CASEFILE/ALLOTMENT NUMBER: 0504587/04050

PROJECT NAME: Grazing lease renewal on the Hat Hill Allotment #04050 authorized to Nottingham Land & Livestock

LEGAL DESCRIPTION: See map Attachment #1

#04050 Hat Hill T8N, R95W Sec. 23, 26, 35

481 acres Private
800 acres BLM
1281 acres Total

APPLICANT: Nottingham Land & Livestock

PLAN CONFORMANCE REVIEW: The proposed action was reviewed for conformance (43 CFR 1610.5, BLM 1617.3) with the following plan:

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

Date Approved: October, 2011

Results: 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 an sustainability of the livestock industry.

Section/Page: 2.14 Livestock Grazing/RMP-41

NEED FOR PROPOSED ACTION: BLM lease #01501161 which authorizes livestock grazing on the Hat Hill Allotment was due to expire on February 28, 2009. This lease was extended in accordance with the Appropriations Act through 2022. The extension was issued under the same terms and conditions as the existing lease, in accordance with Section 415, H.R. 2055 (Consolidated Appropriation Act, 2012) while the BLM continues to process the grazing lease renewal in accordance with all applicable laws and regulations. Mr. Nottingham has applied for renewal of this grazing authorization.

This lease is subject to renewal at the discretion of the Secretary of the Interior, who delegated the authority to BLM, for a period of up to ten years. The BLM has the authority to renew the livestock grazing permit/lease 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 *Resource Management Plan/Environmental Impact Statement.* This Plan/EIS incorporated the *Standards for Public Land Health in the State of Colorado.*

In order to graze livestock on public land, the livestock producer (lessee) must hold a grazing lease. The grazing lessee has a preference right to receive the lease if grazing is to continue. The land use plan allows grazing to occur on these allotments. This environmental assessment (EA) will be a site specific analysis to determine if grazing should be authorized as provided for in the RMP and to identify the conditions under which it can be permitted. The analysis will also recommend terms and conditions to the permits which improve or maintain public land health.

PUBLIC SCOPING PROCESS: The BLM Little Snake Field Office sent out a Notice of Public Scoping on December 17, 2007 to determine the level of public interest, concern, and resource conditions on the grazing authorizations that were up for renewal in FY 2009. 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. Comments received from the base property owner and the lessee were incorporated into the alternatives.

BACKGROUND: The Hat Hill allotment is located north of Maybell, CO off MCR 58. The allotment is approximately 6,500 feet in elevation. The BLM parcels consist primarily of steep terrain and hills with private land crossing the center of the allotment in the Spring Creek drainage. Vegetation within the allotment includes grass and shrub communities consisting of western wheatgrass, Sandberg bluegrass, Indian ricegrass, Wyoming big sagebrush, greasewood, prickly pear cactus, bitterbrush and juniper. A large number of annual forbs and grasses, primarily cheatgrass, are also abundant throughout the allotment. Big game species (elk, deer, antelope) are common within the allotment and the area sees a high level of recreational use by hunters.

This allotment is classified under the Taylor Grazing Act as a Section 15 allotment with a management classification of "C", custodial. Allotments in the custodial category have low production potential for livestock, have no major resource conflicts and are accomplishing

desired results under present management. Historically, this grazing lease has authorized cattle use. Actual authorized use on the allotment has been intermittent and varied.

In July of 2008 a Land Health Assessment and allotment visit were completed by an interdisciplinary team consisting of two rangeland management specialists and a wildlife biologist. The site did not meet standards due to the high presence of cheatgrass and the levels of browse on shrubs. Inconsistent with authorized use was presence of sheep scat and bedding areas. In August of 2009 four Daubenmire transect studies were established. The summary of this data showed that 3 of 4 sites consisted of greater than 50% cheatgrass. Cheatgrass also had the highest frequency at each of the 4 sites. Sagebrush cover at each of the sites accounted for less than 5% at 3 sites and less than 20% at the 4th site (HH2). A follow up observation in 2011 found utilization within the allotment to be light. Scat counts revealed sheep had again been present on the BLM parcels. Additional notes were made summarizing an undesirable level of annual forbs present at each of the transect sites.

Historically, this allotment was authorized to Nebb Ranch (Bruce and Ellen Strickler) and the preference was associated with their base property within the allotment boundary. In 2012 application was made and processed to transfer the preference off of the Strickler base property to Nottingham Land and Livestock base property.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Alternative A, Proposed Action
The grazing authorization would be issued to Nottingham Land and Livestock for a period of ten years, expiring February 28, 2022, as follows:

From:

Allotment	Livestock	Dates			
Name and Number	Number and Kind	Begin	End	%PL	AUMs
Hat Hill 04050	24 Cattle	05/01	09/29	100	120

To:

Allotment	Livestock	Dates			
Name and Number	Number and Kind	Begin	End	%PL	AUMs
Hat Hill	145 Sheep	05/01	06/15	100	44
04050	145 Sheep	08/15	10/31	100	74
				Unscheduled AUMs	2
				Total AUMs	120

Special Terms and Conditions:

1. Sheep or cattle may be authorized to graze this allotment during the permitted periods so long as AUMs are not exceeded.

2. Trailing use outside the authorized dates may occur, if requested by the operator and approved by the BLM, so long as total AUMs are not exceeded and for no longer than a 10 day period.

This lease is also subject to the Standard and Common Terms and Conditions (Attachment #2).

This alternative combines a change in season of use and species of livestock. The spring grazing period would allow for utilization of the annual vegetation, primarily cheatgrass, while it is palatable to livestock and has nutritive value. This utilization would provide some pressure to decrease the vigor and reproduction of these annual species. The off allotment period would provide an opportunity for perennial species to set seed and take full advantage of sun, water, and nutrients during the summer growing cycle. Once seed set has occurred plants enter a more dormant phase and would better sustain grazing pressure. Additionally, this would provide seed introduction for improving the percentage of perennial species present. Some re-growth would occur during the proposed fall grazing period when a plant is storing up root reserves for winter as well as initiating growth tillers for the spring. To minimize the effect of grazing on these processes utilization levels would not exceed 40 or 50% (See Attachment #2 - Common Terms and Conditions).

Alternative B – No Grazing Alternative
The application for renewal of the grazing authorization on the Hat Hill Allotment #04050 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 on this allotment.

Alternatives Considered but not Analyzed
NEPA requires federal agencies to rigorously explore and evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating alternatives that were not developed in detail (40 CFR 1502.14). As also required by NEPA, the range of alternatives considered in detail includes only those alternatives that would fulfill the purpose and need for the Proposed Action.

Continuing Previously Authorized Use Alternative
This alternative is eliminated from detailed study because current land health standards are not being met. In accordance with 43CFR 4180.2 c if public lands are failing to achieve standards and grazing use is a significant causal factor appropriate action shall be taken to make progress toward conformance with the guidelines.

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES

For the following resources and issues, those brought forward for analysis will be addressed below.

Resource/Issue	N/A or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Air Quality		X	
Areas of Critical Environmental Concern	X		
Cultural Resources			X
Environmental Justice		X	
Flood Plains	X		
Fluid Minerals	X		
Forest Management	X		
Hydrology/Ground		X	
Hydrology/Surface			X (see Water Quality – Surface)
Invasive/Non-Native Species			X
Lands with Wilderness Characteristics	X		
Native American Religious Concerns			X
Migratory Birds			X
Paleontology		X	
Prime and Unique Farmland	X		
Range Management		X	
Realty Authorizations		X	
Recreation/Transportation		X	
Socioeconomics		X	
Soils			X
Solid Minerals	X		
T&E and Sensitive Animals			
T&E and Sensitive Plants	X		
Upland Vegetation			X
Visual Resources		X	
Waste, Hazardous or Solid	X		
Water Quality - Ground		X	
Water Quality - Surface			X
Wetlands/Riparian Zones	X		
Wild and Scenic Rivers	X		
Wild Horse & Burro Mgmt	X		
Wilderness Study Areas	X		
Wildlife - Aquatic	X		
Wildlife - Terrestrial			X

CULTURAL RESOURCES

Affected Environment: Grazing authorization renewals are undertakings under Section 106 of the National Historic Preservation Act. During Section 106 review, a cultural resource assessment was completed for the Hat Hill Allotment #4050 on April 4, 2012 by Ethan Morton, Little Snake Field Office Archaeologist. The assessment followed the procedures and guidance outlined by the State Director of the Colorado Bureau of Land Management in Instructional Memorandums IM-WO-99-039, IM-CO-99-007, IM-CO-99-019, and IM CO-20002-29. The results of the assessment are summarized below. Copies of the cultural resource assessment are on file at the Little Snake Field Office.

The prehistoric and historic cultural context for northwestern Colorado has been described in several recent regional contexts. The prehistoric context is described in Reed and Metcalf's Northern Colorado River Basin overview (1999), a synthesis of archaeological data compiled for several large pipeline projects (2009). The historic context is described in overviews compiled by Frederic J. Athearn (1982) and Michael B. Husband (1984). A historical archaeology context has also been prepared for the state of Colorado by Church and others (2007). An overview of significant cultural resources on BLM-LSFO administered lands has been compiled by McDonald and Metcalf (2006).

Data developed here was taken from the cultural program project report files, site report files, and atlases kept at the Little Snake Field Office. Electronic files were also accessed at the Colorado Office of Archaeology and Historic Preservation through the on-line Compass database system. Government Land Office (GLO) plat maps, patent records, and United State Geological Survey (USGS) 1:24,000 scale topographical maps were also reviewed for potential undocumented historic resources.

The table below is based on an analysis developed for the specific allotment in this EA. The table shows known cultural resources, eligible and need data, and those that are anticipated to be in each allotment.

Allotment Number (BLM acres)	Acres Surveyed at a Class III Level	Acres NOT Surveyed at a Class III Level	Percent of Allotment Inventoried at a Class III Level	Eligible or Need Data Sites-Known in Allotment	Estimated Sites for the Allotment *(total number)	Estimated Eligible or Need Data Sites in the Allotment (number)
4050 (800)	44	756	6%	6	110	27

*Estimates of site densities are based on known inventory data. Estimates should be accepted as baseline figures which may be revised upwards or downwards based on future inventory findings.

Twenty two cultural resource studies have been conducted within the Hat Hill Allotment all but one of which is related to a series of buried natural gas pipelines. Only five of these studies were class III inventories while the others were detailed excavation reports, monitoring, or synthesis reports. Approximately 44 acres have been inventoried on BLM administered lands within the allotment. This inventory along with monitoring of the construction work related to the buried pipelines has resulted in the discovery of six cultural resources. These cultural resources consist

of open architectural sites and camp sites associated with the Archaic and Proto-historic eras. Intact surface materials are only present at one of these sites (5MF.3002) as the others are deeply buried or have been excavated and collected through professional research. There are likely intact buried deposits at all of these sites. All of these sites have been recommended eligible or are potentially eligible (require additional data) for the National Register. An examination of the 1908 GLO plat indicates potential undocumented historic resources consisting of a historic route "Spring Creek" and a fence line. Extensive homesteading was carried out along the bottom of Spring Creek on private lands related to the Gents family. It is very likely that there are undocumented historic sites or artifacts related to this homesteading on BLM administered lands.

Based on the available data (site density) there are approximately 110 cultural resources on BLM-LSFO administered land with the allotment. It is likely that approximately 27 of these resources will be recommended or determined eligible for the National Register (Historic Properties). Subsequent cultural resource inventory will be conducted in areas where livestock concentrate within ten years of issuance of a permit. This subsequent inventory will consist of approximately 52 acres and will also involve the evaluation of the potential historic resources identified on the GLO plat. If archaeological or historic sites potentially eligible for the National Register are identified during the subsequent field inventory, and BLM-LSFO determines that grazing activities are adversely impacting the properties, mitigation will be identified and implemented in consultation with the Colorado State Historic Preservation Officer (SHPO).

Environmental Consequences, Alternative A-Proposed Action: The direct impacts that occur where livestock concentrate, during normal livestock grazing activity, include trampling, chiseling, and churning of site soils, cultural features, and cultural artifacts, artifact breakage, and impacts from standing, leaning, and rubbing against historic structures, above-ground cultural features, and rock art (Broadhead 2001, Osbourn et al. 1987). Indirect impacts include soil erosion, gullying, and increased potential for unlawful collection and vandalism. Continued livestock use in these concentration areas may cause substantial ground disturbance and cause irreversible adverse effects to historic properties. Placement of mineral supplements, which can create concentration areas, would potentially impact historic properties if they are in proximity of the placement. The impacts from switching to a larger number of sheep during a shorter times span from a smaller number of cattle is unknown. The larger number of sheep would have a higher potential for ground disturbance within the allotment. The proposed shorter period of use would not alleviate impacts to cultural resources within the allotment.

No adverse impacts from livestock have been documented at the six cultural resources which have been determined eligible of potentially eligible for the National Register. All but one of these sites is deeply buried and has no remaining surface elements. It is likely that 5MF.3002 has some intact surface elements. This site should be revisited and evaluated as to any adverse impacts from livestock. Continued livestock use of the area is appropriate, as long as any identified adverse effects to 5MF.3002 are mitigated. If BLM LSFO determines that livestock are having an adverse effect to historic properties mitigation measures will be developed such that livestock will have no effect to historic properties. If a no effect evaluation cannot be reached, specific mitigation will be developed in consultation with SHPO.

Environmental Consequences, Alternative B-No Grazing Alternative: While a no grazing alternative alleviates potential damage from livestock activities, cultural resources are constantly being subjected to site formation processes or events after creation (Binford 1981, Schiffer 1987). These processes can be both cultural and natural and take place in an instant or over thousands of years. Cultural processes include any activities directly or indirectly caused by humans. Natural processes include chemical, physical, and biological processes of the natural environment that impinge and or modify cultural materials. Sites which have been determined eligible for the National Register and are threatened may have to be mitigated.

References Cited

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2009 *Synthesis of Archaeological Data Compiled for The Piceance Basin Expansion, Rockies Express Pipeline, and Uinta Basin Lateral Projects Moffat and Rio Blanco Counties, Colorado and Sweetwater County, Wyoming*. Alpine Archaeological Consultants, Inc. and Metcalf Archaeological Consultants

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INVASIVE/NON-NATIVE SPEICES

Affected Environment: Invasive plant species and noxious weeds occur within the area of Proposed Action. Canada thistle, hoary cress (white top), musk thistle, scotch thistle, Dalmatian

toadflax, downy brome, leafy spurge, perennial pepperweed and knapweeds are known to occur in this general area. Other species of noxious weeds could be introduced by vehicle traffic, livestock, wildlife 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, Alternative A - 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 into new areas. 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, Alternative B - No Grazing: This alternative removes the spread and introduction of weeds by livestock. Additional sources of seed dispersal would still be present throughout the allotment. Under this alternative there would be no presence by the grazing lessee to assist with the detection of infestations.

NATIVE AMERICAN RELIGIOUS CONCERNS

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

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

Letters were sent to the tribes in the spring of 2012 describing general livestock permitting. No comments were received. Specific range permits are generally not consulted with the tribes unless they rise to a level that warrants specific consultation. The location of any specific range permit has likely not undergone an evaluation regarding the presence of items, sites, or landscapes which may be significant to the tribes.

Environmental Consequences, Alternative A-Proposed Action: Items, sites, or landscapes determined to be culturally signification to the tribes can be directly or indirectly adversely impacted by livestock. Direct impacts could include but are not limited to physical damage, removal of objects or items, and activities thought to be disrespectful (installation of holding pens or water control features near a sacred site). Indirect impacts include but are not limited to prevention of access (hindering the performance of traditional ceremonies and rituals), increased visitation of a previously little used area, and loss of integrity related to religious feelings and associations.

Mitigation Measures, Alternative A-Proposed Action: There are no known adverse impacts to any items, sites, or landscaped determined to by culturally significant to the tribes. If new information is provided by Native Americans, additional or edited terms and conditions for mitigation may have to be negotiated or enforced to protect resource values.

Environmental Consequences, Alternative B-No Grazing Alternative: None

MIGRATORY BIRDS

Affected Environment: Plant communities on the allotments are largely comprised of sagebrush with an understory of grasses and forbs. Juniper, greasewood, prickly pear cactus and bitterbrush are intermixed within the sagebrush shrubland throughout the allotment. A variety of migratory birds utilize this habitat during the nesting period (May through July) or during spring and fall migrations. The allotment contains potential nesting and/or foraging habitat for the following United States Fish & Wildlife Service (USFWS) 2008 Birds of Conservation Concern: Brewer's sparrow, sage sparrow, sage thrasher, bald eagle, and loggerhead shrike. There are six historic golden eagle nests in the Hat Hill Allotment.

Environmental Consequences, Alternative A- 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, plant height or cover. Terms and conditions which limit utilization levels to 50% on key grass species and to 40% on key browse species would prevent over-utilization (>60%) in any given area. Due to the above measures, grazing would not alter habitat conditions to the extent that reproduction or foraging would be adversely impacted. Golden eagle nesting and fledgling activities would not be disturbed by livestock grazing. The vegetative community is in fair condition, providing suitable habitat for migratory bird species. These conditions would continue under the grazing system described in the Proposed Action. Overall, the Proposed Action would be compatible with maintaining local migratory bird populations.

Environmental Consequences, Alternative B – No Grazing Alternative: Elimination of grazing would directly and indirectly impact migratory birds and their habitat. Cessation of livestock grazing would eliminate nest loss and potential mortality of migratory birds through grazing and grazing-related activities. The no grazing alternative would have either a beneficial or detrimental effect on individual migratory bird species, depending on the response of range condition and individual species requirements, but affects at the population or species level would not be adverse.

SOILS

Affected Environment: In general, soils throughout the allotment are well-drained, deep sandy loams, with good permeability and variable potential for runoff. The steepest topography within the allotment occurs on public lands (12-40% slopes). A 2008 upland health assessment found that, while soils on the public lands portion of the allotment were generally stable, the standard for native plant diversity/production was not met and cheatgrass density was high, which in turn was adversely impacting upland soil form and function.

Environmental Consequences, Proposed Action: The Proposed Action includes a change in grazing timing from growing season-long to spring and fall use only. Sand-based soils are less susceptible to disturbance and erosion when wet or moist (spring/fall), which coincides with this proposed change in period of use. The Proposed Action also includes the option to use sheep in addition to cattle. Unlike cattle, sheep are actively herded and are usually present for brief periods of time within the range of permitted dates. The combination of these changes would move upland soil stability and function in a more positive direction over time by favoring native perennial grass growth during the warm season while also providing some level of cheatgrass control.

Environmental Consequences, No Grazing Alternative: Removal of livestock from public lands would lead to decreased hoof compaction of soil surfaces. 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 facilitates vegetation 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 lands.

T&E AND SENSITIVE ANIMALS

Affected Environment: There are no threatened or endangered species or habitats for such species present within the proposed project areas. This allotment does provide breeding and nesting habitat for greater sage-grouse, a BLM special status species and a candidate for listing under the Endangered Species Act (ESA). This allotment also provides winter and winter forage habitat for the bald eagle, a BLM sensitive species.

The Hat Hill Allotment is mapped as Preliminary Priority Habitat (PPH) (per WO IM No. 2012-

043). All of the allotment is mapped as overall greater sage-grouse habitat and greater sage-grouse production range by the Colorado Division of Parks and Wildlife. The Spring Creek drainage, which runs through the Hat Hill allotment on private land provides brood rearing habitat for the greater sage-grouse. Greater sage-grouse nesting habitat is scattered in patches of heavier sagebrush. Quality nesting habitat has an understory of residual grass cover that provides hiding cover for incubating females. Important brood rearing habitat for sage grouse is found along drainages and in moister sites near springs and seeps. Sage-grouse broods require high protein forbs and associated invertebrates.

Habitat for one additional BLM sensitive species, the Brewers's sparrow, occurs in the project area. Brewer's sparrows are a summer resident in Colorado and nest in sagebrush stands. Nests are constructed in sagebrush and other shrubs within denser patches of shrubs. This species would likely be nesting in the project area from mid-May through mid-July.

Environmental Consequences, Alternative A - Proposed Action:

Greater sage-grouse
Livestock grazing has the potential to reduce residual grass cover, an important habitat component for sage-grouse nest concealment. Season long grazing, concentrated fall grazing or grazing the same areas in the spring and then again in the fall would have the most impacts on residual grass cover since there would be little to no opportunity for re-growth before the nesting season. Recent land health assessments show that the herbaceous component does not currently provide the diversity or resilience to meet desired objectives.

The Proposed Action allows for spring grazing to target the annual crop of cheatgrass and reduce competition for native perennial vegetation. Over time, this would improve the vigor and production of native grasses, thus improving suitable cover for nesting sage-grouse. During the late spring grazing, sheep would target the emerging grasses, especially cheatgrass, since forbs are more limited in availability. Since sheep generally tend to favor grazing forbs and shrubs, the opportunity for new grass growth for nest concealment would be higher in areas that are used late in the season. There would be some reduction of residual grass cover in these areas for the subsequent nesting season. Livestock would spend more time in the early seral grassland areas instead of sagebrush ecosystems when given the opportunity. This would decrease grazing pressure in suitable nesting habitat.

Bald eagle
The Proposed Action would not degrade or alter foraging opportunities for bald eagles.

Brewer's sparrow
Grazing can directly impact Brewer's sparrows by trampling nests, or indirectly affect this species by changing components of habitat. Additionally, the presence of livestock, can increase the abundance of brownheaded cowbirds, increasing the chance for nest parasitism by this species (Holmes and Johnson 2005). Grazing systems that promote healthy sagebrush communities should be compatible with maintaining Brewer's sparrow habitat. The proposed grazing schedule incorporates grazing rest and would work towards attaining healthy

ecosystems. Sagebrush stands in the allotments 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 within the allotment are in acceptable condition and this is expected to continue under Alternative A.

Environmental Consequences, Alternative B – No Grazing Alternative: The No Grazing Alternative would benefit wildlife by removing direct and indirect effects of livestock grazing and associated activities to wildlife within the allotment boundary. Increases in forage and hiding cover amounts, types, and quality for wildlife would be expected with this option. Adjacent wildlife habitat on private lands would likely continue to be grazed by livestock.

UPLAND VEGETATION

Affected Environment: The project area consists primarily of steep terrain and hills. Vegetation within the allotment includes grass and shrub communities as well as juniper communities. Plant species include perennial grasses (western wheatgrass, Sandberg bluegrass, Indian ricegrass, bottlebrush squirreltail), shrubs (Wyoming big sagebrush, greasewood, prickly pear cactus, bitterbrush, four-wing saltbush) and juniper trees. A large number of annual forbs and grasses, primarily cheatgrass, are also abundant throughout the allotment.

Environmental Consequences Alternative A, Proposed Action: This alternative combines a change in season of use and species of livestock. The spring grazing period would allow for utilization of the annual vegetation, primarily cheatgrass, while it is palatable to livestock and has nutritive value. This utilization would provide some pressure to decrease the vigor and reproduction of these annual species. The off allotment period provides an opportunity for perennial species to set seed and take full advantage of sun, water, and nutrients during the summer growing cycle. Once seed set has occurred plants enter a more dormant phase and would better sustain grazing pressure. Additionally, this provides seed introduction for improving the density of perennial species. Some re-growth occurs during the proposed fall grazing period when a plant is storing up root reserves for winter as well as initiating growth tillers for the spring. To minimize the effect of grazing on these processes utilization levels would not exceed 40-50%. This alternative would improve the current condition of the upland vegetation.

Environmental Consequences Alternative B, No Grazing Alternative: This alternative would remove grazing pressure on the vegetation community by livestock grazing. Utilization would continue by wildlife populations in the area. This alternative would remove the benefits provided by targeted early spring grazing by livestock on annual species such as cheatgrass.

WATER QUALITY – SURFACE

Affected Environment: Surface runoff from the Hat Hill Allotment would flow into Spring Creek, a perennial tributary to the Yampa River that bisects the allotment on private land. Water quality for all tributaries to the Yampa River (from a point immediately below the confluence with Elkhead Creek to a point immediately below the confluence with the Little Snake River, with some exceptions) 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 immediately influenced by the Hat Hill Allotment.

Environmental Consequences Alternative A, Proposed Action: Livestock wastes deposited in or near streams or entrained or dissolved in runoff reaching streams may contribute to nutrient (nitrogen, phosphorous) and bacteria (*E. coli*) exceedances in surface waters influenced by grazing allotments, although the source(s) of these pollutants, when present, can be difficult to determine. Livestock use of perennial surface waters may also contribute to increased suspended solids (soil particles, organic matter particles) and increased water temperatures by removing or trampling streamside vegetation when use is concentrated for extended periods of time or during certain times of year.

Surface waters present within the allotments are currently supporting classified uses. Permitting livestock grazing as proposed is consistent with land uses throughout the watershed and may serve to improve downstream water quality by improving upland soil stability and function (particularly on steeper slopes), as the addition of a livestock class, timing, and grazing intensity would favor native warm season perennial grasses while also providing some level of control of invasive annual species.

Environmental Consequences Alternative B, No Grazing Alternative: Potential direct and indirect impacts to water quality caused by livestock use, such as deposition and concentration of waste directly into the water body or trampling, trailing, overgrazing of streamside vegetation that may lead to increased sedimentation, would be eliminated. This alternative has the potential to benefit overall water quality both within and downstream of the allotment.

Reference: Colorado Department of Public Health and Environment Water Quality Control Commission. 2012. Regulations #33, 37, and 93. http://www.cdphe.state.co.us/regulations/wqccregs/index.html

Kansas State University Research and Extension. 2002. Kansas Grazing Land Water Quality Program: Understanding Grazing Land and Water Quality (pamphlet). www.kdheks.gov/nps/resources/**grazing**/attach2.pdf

WILDLIFE – TERRESTRIAL

Affected Environment: This allotment provides year round habitat for elk, mule deer, pronghorn antelope, mountain lion and a variety of small mammals, reptiles and song birds. The Hat Hill Allotment is mapped as elk and pronghorn severe winter habitat by the Colorado Division of Parks and Wildlife.

Environmental Consequences Alternative A, Proposed Action: The Proposed Action would ensure that wildlife habitats remain capable of supporting healthy productive wildlife populations. The Proposed Action permits grazing to occur outside of the big game winter timing restrictions (December 1 – April 30). This timing restriction would prevent impacts to big game winter range habitats in the allotment. Big game animals would not be directly impacted from livestock grazing. There is a potential that ground nesting songbirds using these allotments could have nests destroyed by livestock. This is unlikely to occur frequently and would not have a negative impact on any species population. Livestock grazing would not have any impact on the raptor nests found within the allotments.

Environmental Consequences Alternative B, No Grazing Alternative: Under the No Grazing Alternative, there would no longer be direct competition between livestock and wildlife for forage, browse and cover. Wildlife habitat would moderately improve. The limitation for improvement would continue to be the inability to control livestock use of the parcels because of the expense of segregating the lands with fencing, and legal access to administer isolated parcels of public land. The potential for new range improvement projects in the future that would also benefit wildlife habitat, such as brush control, may not be implemented because these projects are primarily driven and funded through range improvement efforts.

CUMULATIVE IMPACTS SUMMARY:
Cumulative impacts may result from the renewal of this livestock grazing lease when added to non-project impacts that result from past, present and reasonably foreseeable future actions.

Historically, this allotment and surrounding areas have been grazed by both sheep and cattle. It is not anticipated that land use, emphasizing agricultural practices, in any of the surrounding areas, public or private lands, would experience drastic changes outside of previous and or current use, or be abolished in the foreseeable future.

Wildlife populations in the area are high, especially for deer, pronghorn, and migratory elk that compete with livestock for available forage throughout the area. Agricultural and livestock management fences and other developments contribute to habitat fragmentation for many wildlife species. Additionally, the wildlife populations attract a high number of hunting recreationists to the area.

Numerous maintained and unmaintained roads exist throughout the area, including on the allotments. These roads are used regularly by landowners and recreational hunters. In association with the implementation of the Final Little Snake Resource Management Plan, 2011 (RMP) a Travel Management Plan (TMP) would be completed within five years. This TMP could provide greater restrictions to OHV use compared to what is currently allowed.

As population demographics in the surrounding area change and the push to get people outdoors continues to evolve, more people are utilizing public lands. An increase in visitors to public lands could provide the potential for conflicts between people and livestock protection dogs that are a primary and traditional means of protecting sheep from predators. The allotment has different dates that allow for normal grazing and herding; however, trailing, which occurs primarily in the fall and spring, could occur anytime on any of the allotments in this area, particularly along the more major county road, and the potential to interact with livestock protection dogs could occur during recreational use. A national effort is currently underway to provide information to the public on the potential dangers associated with sheep dogs and are aimed at better educating the public on how to act when in the vicinity of these dogs.

Energy and mineral development is currently authorized in many areas inside and outside the area of Proposed Action and some level of future developments will also likely occur. Adjacent to the allotment is a sizeable pipeline corridor. Revegetation efforts are in varying stages across this corridor.

Ranching, agriculture and hunting are major economic drivers for the local community and surrounding region. Continuation of these practices would provide commerce, employment, and stability to many businesses, families and individuals who depend on agricultural practices for their livelihood. If Alternative B - No Grazing Alternative were to be chosen, a small number of individuals and families would lose employment and would be forced to seek or train for other employment, relocate, or rely on public assistance. If this type of no grazing on public land trend were to continue, denying applications and or cancelling other or all public land grazing authorizations, the economy of the region and many other associated industries would no longer be sustainable, thus causing a much larger and far reaching adverse economic and social impact. Currently, and in the foreseeable future, there is no industry, or economic venture that could replace agricultural practices in terms of employment, commerce, and tax based revenue.

There is a consensus in the international community that global climate change is occurring, although defined causal factors and prevention measures are still being debated. There is currently a lack of guidance on how to perform a climate change analysis under NEPA and thus it is appropriate to restrict this discussion to a qualitative review. Livestock grazing under Alternative A - Proposed Action would be at a similar level as it has historically been, so it follows that methane and carbon dioxide production would stay the same. Therefore, under Alternative A - Proposed Action there would be no increased contribution to global climate change. Greenhouse gas production would presumably be further reduced under a no grazing scenario, although it is likely that at least some of the livestock that would have been grazed on these allotments would simply graze elsewhere.

Future use on adjacent private lands would likely continue to include livestock grazing as a primary use in addition to energy development, recreational use and farming. When added to the existing activities in the project area, approval of this Proposed Action would not cause undue damage to natural resources. Alternative A - Proposed Action to continue grazing on these allotments, is compatible with other uses, both historic, present, and future and would not add any new or detrimental impacts to those that are already present or will be cumulative in nature.

STANDARDS

On July 17, 2008 two Rangeland Management Specialists and a Wildlife Biologist conducted an upland Land Health Assessment for the Hat Hill Allotment.

Allotment	Assessment Date(s)	All Standards Met	Standard(s) Not Met	Current Livestock Management a Causal Factor	Management Actions
Hat Hill #4050	07/17/08	No	Standard 3 Plant and Animal Communities	Yes	Renew permit with grazing system implemented to maintain cool season use and mitigate sagebrush hedging.
Comments	The percentage of annual plant species within the allotment does not provide the diversity, resilience or appropriate composition to meet desired objectives for grazing management or wildlife habitat. While there are perennial grasses present they are limited in production and are competing for resources with cheatgrass. In some areas of the allotment the sagebrush is hedged which can be attributed to wildlife use as well as potential unauthorized livestock use.				

PERSONS/AGENCIES CONSULTED:

Name	Response
Uinta and Ouray Agency Ute Indian Tribe	No specific input
Ute Mountain Ute Tribe	No specific input
Eastern Shoshone Tribe	No specific input
Southern Ute Indian Tribe	No specific input
Mr. and Mrs. Bruce Strickler	Comments incorporated into alternatives
Nottingham Land and Livestock	Comments incorporated into alternatives

ATTACHMENTS: #1 - Map
#2 - Standard and Common Terms and Conditions

SIGNATURE OF PREPARER: */s/ Christina Rhyne*

DATE SIGNED: *6/4/2012*

SIGNATURE OF ENVIRONMENTAL REVIEWER: /s/ *Matt Anderson*

DATE SIGNED: *6/8/2012*

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 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. Adverse effects include minor impacts to soils and vegetation that will occur temporarily during construction of the proposed fence. Long term effects would be limited in scope.

2. Degree of effect on public health and safety:
There would be no effects 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 BLM Little Snake Field Office sent out a Notice of Public Scoping on December 17, 2007 to determine the level of public interest, concern, and resource conditions on the grazing authorizations that were up for renewal in FY 2009. 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.

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.

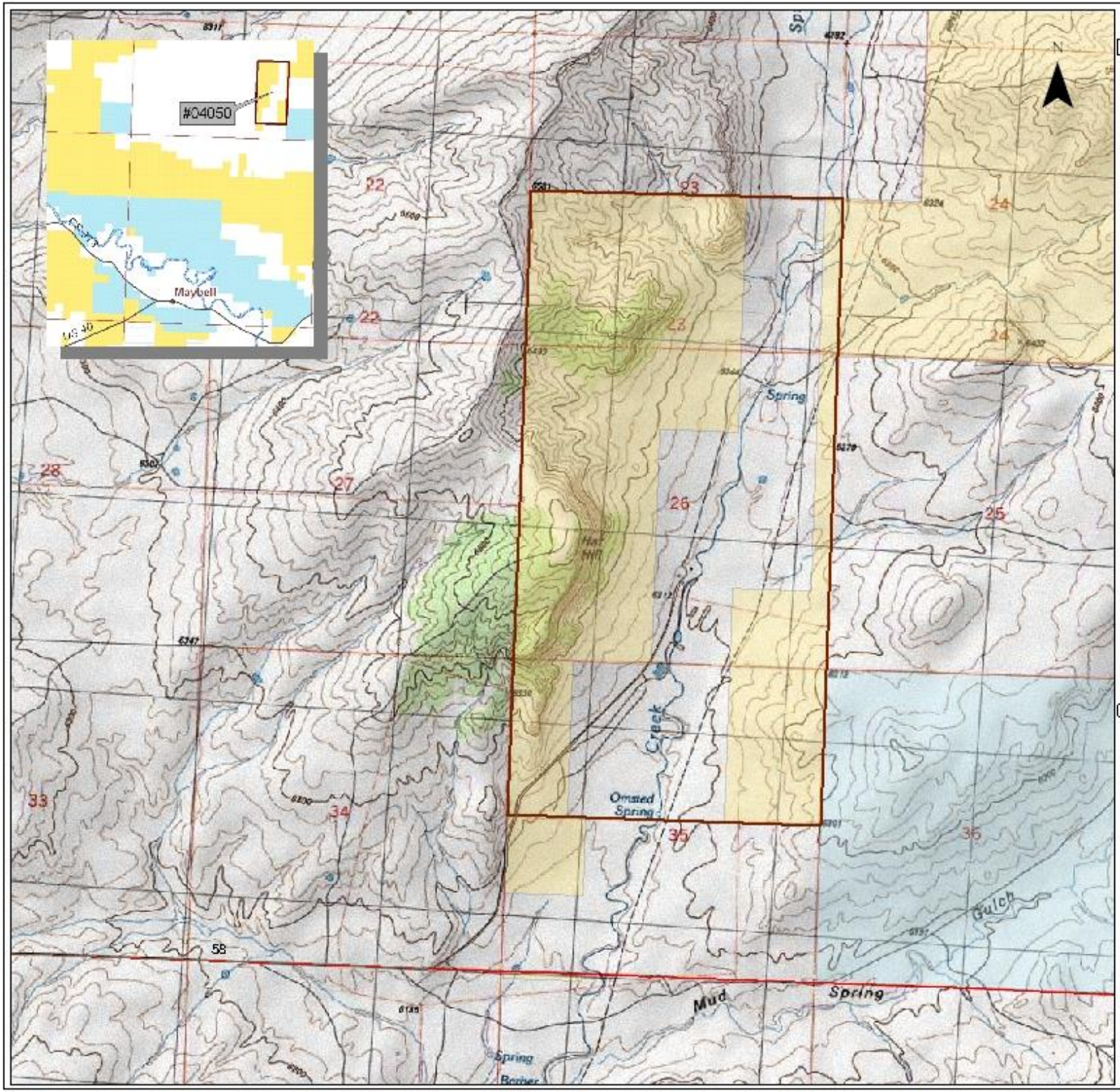
9. Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:
There are no threatened or endangered species or habitats for such species present within these allotments.

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: */s/ Matt Anderson*

DATE SIGNED: *6/8/2012*

Attachment #1
DOI-BLM-CO-N010-2012-0032



Allotment #4050
Hat Hill

T8N R95W

Allotment Boundaries

Surface Management Status

- Private
- State Land Board
- US BLM
- US BLM LU

Private	481 acres
BLM	800 acres
Total	**1281 acres**

0 1,200 2,400 4,800

Feet

Map produced by LSFO BLM. No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregation use with other data. All boundaries are an approximate representation.

3/26/12 CR

ATTACHMENT #2
DOI-BLM-CO-N010-2012-0032
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) Storing or feeding supplemental forage on public lands other than salt or minerals must have prior approval. Forage to be fed or stored on public lands must be certified noxious weed-free. Salt and/or other mineral supplements shall be placed at least one-quarter mile from water sources or in such a manner as to promote even livestock distribution in the allotment or pasture.

E) Pursuant to 43 CFR 10.4(g), the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of

human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

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

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

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

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

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

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

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.