

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: CO-100-2007-078

CASEFILE/ALLOTMENT NUMBER: 0502921/02825

PROJECT NAME: Issuance of a ten year grazing lease for Humble Ventures, LLC on the Emerald Mountain Allotment #02825.

LEGAL DESCRIPTION: see Allotment Map, attachment 1

Emerald Mountain Allotment #02825

T6N R85W Secs. 15, 21-27, 34, 35

3,875 acres BLM

APPLICANT: Ed Trousil for Humble Ventures, LLC

PLAN CONFORMANCE REVIEW: The Proposed Action and Alternatives are subject to the following plan:

Name of Plan: Little Snake Resource Management Plan and Record of Decision, as amended.

Date Approved: April 26, 1989

Name of Plan Amendment: Emerald Mountain Land Exchange Environmental Assessment/Plan Amendment (EA CO-100-2006-089) and Record of Decision.

Date Approved: October 4, 2006

Results: The Proposed Action and Alternatives are subject to and are consistent with the Little Snake Resource Management Plan, Record of Decision, Livestock Grazing Management objective to improve range conditions for both wildlife and livestock through proper utilization of key forage plants and adjusting livestock stocking rates as a result of vegetation studies.

The Proposed Action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3).

NEED FOR PROPOSED ACTION: On February 22, 2007, BLM acquired the 4,139 acre Emerald Mountain parcel from the State Land Board (SLB) through the Emerald Mountain land exchange. Prior to BLM's acquisition of the parcel, the SLB authorized grazing use under SLB grazing leases. Per 43 CFR 4110.1-1, BLM must honor any existing grazing privileges on lands acquired by BLM through exchange. This acquired existing 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 has been amended by *Standards for Public Land Health in the State of Colorado*.

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

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

PUBLIC SCOPING PROCESS: The land exchange proposal, which included the continuation of livestock grazing on the Emerald Mountain Parcel, was subject to extensive public scoping. BLM informally notified the public of the proposed land exchange on September 17, 2003 with the posting of a website (www.co.blm.gov/lspa/emerald_mtn/em.htm) describing the proposal and providing detailed information and documents, including the approved feasibility study and agreement to initiate the exchange. Formal public notification of the proposed exchange occurred through the publication of legal notices in local newspapers. These public notices invited interested parties to submit comments to the Little Snake Field Office for a period of 45 days. Notification of the proposed exchange was sent to interested parties, including state and local agencies and elected officials. The Notice of Exchange Proposal was published in the following newspapers on the dates indicated:

The Hayden Valley Press	February 9, 16, 23 and March 2, 2005
Craig Daily Press	February 11, 18, 25 and March 4, 2005
Moffat County Morning News	February 13, 20, 27, and March 6, 2005
The Steamboat Pilot	February 13, 20, 27 and March 6, 2005

In addition, BLM held three public open houses to gather public input. These meetings were held as

follows:

March 7, 2005 at Olympian Hall, Steamboat Springs, 3:00-8:00 p.m.

March 8, 2005 at Town Hall, Oak Creek, 3:00-8:00 p.m.

March 9, 2005 at Town Hall, Hayden, 3:00-8:00 p.m.

Seventy-eight members of the public attended the Steamboat Springs meeting, twenty-six attended the Oak Creek meeting, and twenty-four attended the Hayden meeting. BLM received 139 written scoping responses from individuals, non-governmental entities, and other public agencies during the comment period.

BACKGROUND: The Emerald Mountain Allotment #02825 was created following the completion of the Emerald Mountain Land Exchange. Its boundary encompasses those lands that were leased to Humble Ventures, LLC for the purpose of livestock grazing by the SLB prior to the exchange. The allotment is approximately 3,875 BLM acres and is located approximately 2 miles southwest of Steamboat Springs, Colorado. The topography of the allotment is mountainous, with elevations ranging from over 8,200 feet in the northeasterly portion of the allotment to approximately 6,770 feet along Cow Creek in the northwesterly portion of the allotment. The climate is typical of the southern Rocky Mountains, with cold, snowy winters and warm summers. The average high temperature is 28°F in January and 82°F in July. Average annual precipitation is 24 inches and yearly snowfall averages 166 inches.

The Humble Venture's SLB grazing lease allowed for 650 AUMs of grazing use with no specified season of use or other terms and conditions. This SLB lease had been renewed on an annual basis until December 31, 2006. In the months leading up to the exchange, it was understood by BLM that the SLB grazing lease would be valid at the date of closing, whenever that was to occur. Per 43 CFR 4110.1-1, BLM was to assume your grazing lease with the SLB as it existed at the time of BLM's acquisition of the parcel. Since the SLB lease expired in December, 2006, there was no grazing lease in place for BLM to assume at the time BLM acquired the Emerald Mountain Parcel. On April 11, 2007, BLM issued a Proposed Decision authorizing a one-year grazing lease that authorized use identical to the previous SLB lease.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action

Issue a ten year grazing lease to Humble Ventures, LLC on the Emerald Mountain Allotment #02825. Grazing use on this allotment would be as follows:

Allotment Name & Number	Livestock Number & Kind	Dates		%PL	AUMs
		Begin	End		

Emerald Mountain #02825	71 Cattle	05/15	10/31	100	397
					unscheduled <u>3</u>
					Total 400

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

This alternative reflects the livestock use that Humble Ranch has implemented under their previous SLB authorizations.

No Action Alternative

Grazing use would remain at the level permitted by the SLB, which is as follows:

Allotment Name & Number	Livestock Number & Kind	Dates		%PL	AUMs
		Begin	End		
Emerald Mountain #02825	64 Cattle	03/01	12/31	100	644
					unscheduled <u>6</u>
					Total 650

Under this alternative, the lease would be subject to the Standard and Common Terms and Conditions which apply to all grazing permits and leases administered by the Little Snake Field Office, see Attachment 2.

This alternative, while not reflective of the use made by the current operator when the SLB administered use, would still authorize such use.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED

No Grazing Alternative

No livestock grazing would take place under this alternative. Eliminating livestock grazing is not analyzed because no new issues or concerns have been identified that would require this action and it would not meet the requirements of the Federal Land Policy and Management Act of 1976. When the RMP was amended through Emerald Mountain Land Exchange Environmental Assessment/Plan Amendment (EA CO-100-2006-089) and Record of Decision, it was determined that livestock grazing was an appropriate use of this land. Additionally, 43 CFR 4110.1-1 requires BLM to honor existing livestock grazing authorizations in effect when lands are acquired through land exchanges.

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES

CRITICAL RESOURCES

AIR QUALITY

Affected Environment: The allotment is not within any special designation air sheds or non-attainment areas.

Environmental Consequences, all alternatives: None

Mitigative Measures: None

Name of specialist and date: Ole Olsen 8/3/07

AREA OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Not present.

Environmental Consequences, all alternatives: None

Mitigative Measures: None

Name of specialist and date: Rob Schmitzer 7/2/07

CULTURAL RESOURCES

Affected Environment: Grazing lease issuances are undertakings under Section 106 of the National Historic Preservation Act. Range improvements associated with the allotment (e.g., fences, spring improvements) are subject to compliance requirements under Section 106 and will undergo standard cultural resources inventory and evaluation procedures. During Section 106 review, a cultural resource assessment (Heritage #10.27.07) was completed for each allotment on June 27, 2007 by Robyn Watkins Morris, Little Snake Field Office Archaeologist. The assessment followed the procedures and guidance outlined in the 1980 National Programmatic Agreement Regarding The Livestock Grazing And Range Improvement Program, IM-WO-99-039, IM-CO-99-007, IM-CO-99-019, and IM-CO-01-026. The results of the assessment are summarized in the table below. Copies of the cultural resource assessments are in the Field Office archaeology files.

Data developed here were taken from the cultural program project report files, site report files, and base maps kept at the Little Snake Field Office as well as from GLO maps, BLM land patent records, An Overview of Prehistoric Cultural Resources Little Snake Resource Area, Northwestern Colorado, Bureau of Land Management Colorado, Cultural Resources Series, Number 20, and An Isolated Empire, A History of Northwestern Colorado, Bureau of Land Management Colorado, Cultural Resource Series, Number 2 and Appendix 21 of the Little

Snake Resource Management Plan and Environmental Impact Statement, Draft February 1986, Bureau of Land Management, Craig, Colorado District, Little Snake Resource Area.

The table below is based on the allotment specific analysis developed for the allotment in this EA. The table shows known cultural resources, eligible and need data, and those that are anticipated to be in the allotment. Fieldwork for the cultural resources on the table will be carried out in current fiscal year or within the ten year lease term.

Acres Inventoried at a Class III level*	Acres NOT inventoried at a Class III Level	Percent-%-of Allotment inventoried at a Class III level	Number of Cultural Resources known in allotment	High Potential of Historic Properties	Eligible or Need Data Sites – Known in Allotment (Site Numbers)	Estimated Sites for the Allotment** (Total Number)	Management Recommendations (Add'l inventory required and historic properties to be visited)
0	4122	0	0	unknown	0	Unknown	No historic sites were noted on the GLOs, however, search through patent records identified patentee Lulie M. Pritchett in 6N 85W sec. 24 and should be researched further.

(Note: *Acres are derived from GIS allotment maps and include only BLM acres. See allotment specific analysis form. **Estimates of site densities are based on known inventory data. Estimates represent a minimum figure which may be revised upwards based on future inventory findings.)

No cultural resource inventories have been previously conducted within the allotment resulting in the complete coverage inventory of 0 acres and the recording of 0 cultural resources.

If historic properties are located during the subsequent field inventory, and BLM determines that grazing activities will adversely impact the properties, mitigation will be identified and implemented in consultation with the Colorado SHPO.

Environmental Consequences, all alternatives: The direct impacts that occur where livestock concentrate 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. Indirect impacts include soil erosion, gulying, and increased potential for unlawful collection and vandalism. Continued grazing may cause substantial ground disturbance and cause cumulative, long term, irreversible adverse effects to historic properties.

Cultural Review Process

Monitoring of the previous years range permit renewal environmental documentation for FY98, FY99, FY2000, FY2001, FY2002, FY2003, FY2004, and FY2005 has been carried out. These reports represent three field seasons of evaluation work on the eligible and need data sites. The fieldwork conducted in 2000, 2001, 2002, 2003, and 2005 as expected, identified impacts to some of the cultural resources being evaluated. This information is covered in the following reports:

Keesling, Henry S. and Gary D. Collins, Patrick C. Walker
2000 Cultural Resource Evaluation of Known Eligible and Need Data Sites within Range Allotments for Range Permit Renewal EA's FY98 and FY99. Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy on file at that office.

Collins, Gary D., and Patrick C. Walker, Sam R. Johnson, Henry S. Keesling
2001 **Addendum to Cultural Resource Evaluation of Known Eligible and Need Data Sites within Range Allotments for Range Permit Renewal EAs FY98 and FY99, Range Permit Renewal EA's FY2000 and FY2001.** Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy on file at that office.

Collins, Gary D. and Ryan J. Nordstrom, Henry S. Keesling
2002 **The Second Addendum to The Cultural and Need Data Sites Within Range Allotments for Range Permit Renewal EA's FY98, FY99, FY00, FY01, and FY02.** Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy on file at that office.

Collins, Gary D. and Henry S. Keesling
2003 **The Third Addendum to The Cultural and Need Data Sites Within Range Allotments for Range Permit Renewals EA's FY98, FY99.** Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy on file at that office

Collins, Gary D. and Henry S. Keesling
2005 **The Fourth Addendum Range Permit Renewal FY04 and FY05 to The Cultural Resource Evaluation of Known Eligible and need Data Sites Within Range Allotments for Range Permit Renewal EA's FY00, FY01, FY02, FY03.** BLM 10.27.05. Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy of file at that office.

BLM has committed to a ten year phased evaluation being conducted for cultural resources that takes into account identified livestock concentration areas and the cultural resources that are either eligible and/or need data and to carrying out mitigation on cultural resources that require this action. The phased monitor and mitigation approach will mitigate identified adverse effects, significant impacts and data loss, (NHPA Section 106, 36CFR800.9; Archaeological

Resource Protection Act 1979; BLM/Colorado SHPO Protocol 1998; NEPA/FLPMA requirements) to an acceptable level.

The GIS mapping and evaluation effort will establish areas that have potential conflicts between livestock and prehistoric cultural resources. The GIS maps will provide a computer generated visual departure point for the proposed cultural fieldwork. GIS maps using USGS and BLM best available data, will be created showing springs, stream course features, riparian areas, and slopes that are greater than 30% slope within the allotment. Current understanding of prehistoric settlement and subsistence patterns will be applied to the GIS map review and used to establish prehistoric cultural areas. These potential livestock concentration areas will be evaluated in the field.

Livestock impacts may cause cumulative effects, some of which will be significant, and will cause long-term, irreversible, potentially irretrievable adverse impacts and data loss. However, the phased identification and evaluation fieldwork will identify mitigation measures that will reduce these impacts (NHPA Section 106; 36CFR800.9; Archaeological Resource Protection Act 1979; BLM/Colorado SHPO Protocol 1998; NEPA/FLPMA requirements), to an acceptable level.

Other project specific Class III surveys initiated by the BLM, industry, or ranching will identify previously unrecorded cultural resources within these allotments. Newly identified cultural resources will need to be mitigated in relationship to the proposed project(s). Further, these cultural resources will be incorporated into current and future grazing review efforts to be evaluated and monitored as necessary.

Mitigative Measures: Standard Stipulations for cultural resources are included in Standard Terms and Conditions for the livestock grazing lease issuance (Attachment 2).

Allotment Specific Stipulations:

1. GIS maps based upon stream course features and springs from the 7.5 minute USGS maps and BLM best available riparian/spring data in this office will be used to initially establish evaluation areas for livestock concentrations. Current archaeological understanding of settlement and subsistence patterns for prehistoric cultural resources will be applied to these maps. Identified livestock concentration areas will be field evaluated. Those areas with no livestock impacts but with potential for cultural resources will under go the same Class III survey discussed below. This survey will be conducted documenting archaeological resources which may be impacted if grazing practices change in the future. Identified concentration areas that exhibit livestock impacts will have the following cultural surveys:

Springs, riparian areas, streams or creeks, and intermittent drainage will have a Class III survey in the area of concentration that includes an additional 50 feet around the impacted

area. Identified cultural resources will be recorded to include the total site area and mitigation developed.

Springs will have a Class III survey in the area of concentration and include an additional 50 feet around the impacted area. Identified cultural resources will be recorded to include the total site area and mitigation developed.

2. GIS maps showing slope potential, 30% or greater, where rock art and rock shelters are predicted to occur, will be used to initially establish evaluation areas for Class III survey. These areas will be evaluated for livestock concentrations. Identified concentration areas will have the following cultural surveys performed:

Potential rock shelters, rock art areas will be evaluated to see if cultural materials are present. When cultural resources are identified the site will be recorded and appropriate mitigation will be developed.

3. Previously identified sites, table above, and new sites recorded and evaluated as eligible and/or need data during other project specific Class III survey will need to be evaluated as well. Initial recording of new sites and re-evaluation of the known sites will establish current condition of the resource and help in developing a monitoring plan for all sites. Some sites will have to be monitored more often than others. Sites that are impacted by grazing activities will need further monitoring, physical protection or other mitigative measures developed.

4. Site monitoring plans, other mitigation plans, will be developed and provided to the Colorado State Historic Preservation Officer in accordance with the Protocol (1998) and subsequent programmatic agreements regarding grazing permit renewals.

Conducting Class III survey(s), monitoring, and developing site specific mitigation measures will mitigate the adverse effects, data loss, and significant impacts (NHPA Section 106, 36CFR800.9; Archaeological Resource Protection Act 1979; BLM Colorado and Colorado SHPO Protocol 1998; and NEPA/FLPMA requirements) to an acceptable level.

The Colorado State Historic Preservation Officer (SHPO) agreed with the Bureau of Land Management, Colorado, (BLM) that the BLM could issue its grazing permits and leases with the proposed Cultural Resource Management actions, monitoring known eligible and need data sites and conducting Class III and/or modified Class III surveys on selected areas of BLM lands within in a ten year time frame (Cultural Matrix Team Meeting 26 January 1999, Colorado BLM State Office).

Name of specialist and date: Robyn Watkins Morris 6/27/07

ENVIRONMENTAL JUSTICE

Affected Environment: The Proposed Action is located in an area devoid of year-round populations.

Environmental Consequences: The project area is relatively isolated from population centers, so no populations would be affected by physical or socioeconomic impacts from the project. The project would not directly affect the social, cultural, or economic well being and health of Native American, minority or low-income populations.

Mitigative Measures: None

Name of specialist and date: Louise McMinn 6/27/07

FLOOD PLAINS

Affected Environment: Floodplains occur along Cow Creek and along some segments of tributary streams. Stream gradients are too steep along most tributaries for continuous floodplain development, although small floodplain areas can develop where gradients allow. The Cow Creek floodplains have good woody and herbaceous cover. An unpaved road parallels the floodplain. The allotment boundary fence crosses the creek and its floodplain in a few spots leaving portions of the floodplain areas fenced within the county road right of way and not grazed by livestock. Increased density of herbaceous floodplain vegetation is noticeable on the areas where livestock grazing does not occur. After spring runoff subsides Cow Creek is not a reliable source of water for livestock.

Environmental Consequences, Proposed Action: Delaying livestock turnout until May 15th would provide additional time in the early growing season for floodplain plants to produce forage and begin building root reserves needed for plant vigor. Annual high flows would typically have subsided from floodplain areas by the livestock turnout date and floodplain soils would be drier, reducing the potential for soil impacts. Reducing the grazing period in the fall by two full months could reduce browsing on willows and cottonwoods by cows.

The proposed reduction in AUMs would lower the stocking rate for livestock permitted in the allotment. This would help to take pressure off of floodplains that have a longer growing period and where plants remain green longer.

Environmental Consequences, No Action: This alternative would allow livestock to be in the allotment for an extended period of time. The early spring and late fall periods allowed under this alternative would put increased grazing on the forage resources along the Cow Creek floodplains because livestock would tend to congregate on the lower portions of the allotment, prior to the melt of the winter snowpack and as deeper snows accumulate in the fall. Early spring grazing each year would damage plants protecting floodplain soils from erosion and create soil compaction, reducing floodplain function.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 8/6/07

INVASIVE, NONNATIVE SPECIES

Affected Environment: Invasive and noxious weeds are present in the affected area. Hoary cress, houndstongue, Dalmatian toadflax, yellow toadflax, leafy spurge, oxeye daisy, Canada thistle, musk thistle, bull thistle and other biennial thistles are present in the vicinity of the allotment. The BLM and Routt County are in cooperation to treat problem areas in the Emerald Mountain Area.

Environmental Consequences, Proposed Action: The potential to increase invasive and/or noxious weed establishment is similar under either of the alternatives, but the Proposed Action reduces the potential for this to occur. Nonnative invasive and noxious weeds could become established on favorable upland sites within the allotments. Grazing within the proper utilization guidelines generally protects a plant community from widespread infestations of noxious and invasive weeds. Reducing the grazing period and reducing the stocking rate would help to achieve forage utilization objectives and better grazing distribution. Vehicular access to public land for grazing operations, livestock and wildlife movement, and wind and water can cause weeds to spread into new areas. Surface disturbance due to livestock concentration and human activities associated with grazing operations can also increase weed presence. Land practices and land uses by the livestock operator and their weed control efforts would largely determine the identification and potential occurrence of weeds within the allotment.

Environmental Consequences, No Action: The potential to exceed the grazing utilization guidelines is more likely to result under this alternative. Overgrazing can result in lowered vigor on plants and reduced plant biomass, including roots. The overall effects of these processes results in less competition between plants and openings in the plant community and interspaces for invasive and noxious weeds to become established.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 8/6/07

MIGRATORY BIRDS

Affected Environment: The Emerald Mountain Allotment contains potential habitat for the following birds listed on the USFWS 2002 Birds of Conservation Concern list: flammulated owl, Lewis's woodpecker, pygmy nuthatch, red-naped sapsucker, Virginia's warbler, Williamson's sapsucker, and Swainson's hawk. No nests have been recorded for any of these species.

Environmental Consequences, all alternatives: All species mentioned above are tree nesting species except for Virginia's warbler which nests on the ground. Tree nesting birds would not

be impacted by livestock grazing and there is little to no chance for take of these birds to occur as a result of livestock grazing. Virginia's warblers could be impacted by livestock grazing through nest trampling or reduced nesting habitat quality as a result of excessive grazing. Permitted livestock grazing under either alternative is not likely to result in degraded nesting habitat. There is a moderate chance for individual take to occur. This would not have a negative impact on this species population.

Mitigative Measures: None

Name of specialist and date: Timothy Novotny 6/29/07

NATIVE AMERICAN RELIGIOUS CONCERNS

A letter was sent to the Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Utes Tribal Council, and the Colorado Commission of Indian Affairs on January 15, 2004. The letter discussed the Emerald Mountain Land Exchange where obtained the portion of land that is part of this grazing permit. Comments received from the Southern Ute Tribal Council did not foresee any impacts. No other comments were received (Letters on file at the Little Snake Field Office, Craig, Colorado).

Name of specialist and date: Robyn Watkins Morris 6/27/07

PRIME & UNIQUE FARMLANDS

Affected Environment: No prime and/or unique farmlands are present on the Emerald Mountain Allotment.

Environmental Consequences, all alternatives: None

Mitigative Measures: None

Name of specialist and date: Ole Olsen 8/2/07

T&E SPECIES - SENSITIVE PLANTS

Affected Environment: There are no BLM sensitive plant species present on the Emerald Mountain Allotment.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 6/25/07

T&E SPECIES – ANIMALS

Affected Environment: The Emerald Mountain Allotment contains potential habitat for the federally threatened Canada lynx. While there are habitat characteristics favorable to Canada lynx within this allotment, it is unlikely to be used by lynx due to the isolated nature of the parcel and the heavy development associated with the town of Steamboat Springs. The northwest corner of the allotment contains suitable nesting habitat for Columbian sharp-tailed grouse and is within two miles of a lek site.

Environmental Consequences, all alternatives: Lynx habitat in this area is marginal and largely noncontiguous. However, individuals may utilize the area during dispersal or as a movement corridor. A biological assessment for the Emerald Mountain Land Exchange (May 2005) determined that the exchange and associated actions (including grazing lease transfers as a result of the exchange) would have a “may affect not likely to adversely affect” Canada lynx. The USFWS concurred with this determination on July 29, 2005.

Livestock grazing has the potential to alter vegetation structure, composition, and function. Neither alternative would affect the lek site located west of this allotment. Intensive grazing could degrade some nesting habitat but this would be limited to small areas were livestock concentrate. Suitable nesting habitat would still remain over much of the nesting areas.

Mitigative Measures: None

Name of specialist and date: Timothy Novotny 6/29/07

T&E SPECIES – PLANTS

Affected Environment: There are no federally listed threatened or endangered plant species on the Emerald Mountain Allotment.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 6/25/07

WASTES, HAZARDOUS OR SOLID

Affected Environment: There is no solid or hazardous waste present on the allotment.

Environmental Consequences, all alternatives: Access to the grazing allotment for livestock management purposes could result in releases of motorized vehicle fluids such as oil and coolant. This type of release is unlikely and would be extremely limited in nature.

Mitigative Measures: None

Name of specialist and date: Hunter Seim 6/27/07

WATER QUALITY – GROUND

Affected Environment: The allotment may have some recharge zones for groundwater aquifers.

Environmental Consequences, all alternatives: Due to the limited number of livestock grazing, there would be no adverse impacts to ground water quality under either alternative. Both alternatives would be conducted in accordance with existing Colorado laws for water quality. Specifically, all permit activities would comply with the applicable water quality regulations in The Colorado Water Quality Control Act, and they would be in conformance with the classifications and numeric standards for water quality established by the Colorado Water Quality Control Commission.

Mitigative Measures: None

Name of specialist and date: Marilyn D. Wegweiser 7/9/07

WATER QUALITY - SURFACE

Affected Environment: The Emerald Mountain Allotment is located within the drainage area of Cow Creek and a minor portion of the headwater areas of Agate Creek. Cow Creek is an intermittent tributary of the Yampa River, and Agate Creek is an intermittent to ephemeral tributary to the Yampa River. Several springs and seeps occur within the allotment. The Yampa River and its tributaries along this segment of the Yampa River need to have water quality that supports Aquatic Life Cold 1, Recreation 1a, Water Supply, and Agriculture.

Environmental Consequences, Proposed Action: Benefits to water quality downstream of the grazing allotment would be expected with implementation of reduced grazing. Under the Proposed Action, improved forage and soil resources on the uplands would reduce the amount of sedimentation released into streams.

Environmental Consequences, No Action: Although water quality would continue to meet State Standards, the soil erosion that could potentially result from higher levels of grazing use over a longer period of time could cause elevated sediment deposits in Cow and Agate Creeks.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 8/6/07

WETLANDS/RIPARIAN ZONES

Affected Environment: The wetland and riparian habitats of the Emerald Mountain Allotment occur along Cow Creek and the various ephemeral drainages. The largest riparian system within the Emerald Mountain Allotment is Cow Creek, an intermittent tributary of the Yampa River. It flows northerly in and out of the allotment along the western boundary. Although the stream is lined by a narrowleaf cottonwood forest and willow-alder shrubland, the streambanks of Cow Creek are very marginally riparian. Streambank vegetation consists of upland grasses and forbs, with an occasional seep supporting Nebraska sedge and other riparian/wetland species. The stream channel has cobble and large rocks and some of this material is also embedded in the streambanks. The trees and shrubs along the creek are healthy and vigorous and they have a diverse understory of herbaceous vegetation. Cow Creek is rated as functioning at risk with no apparent trend. Much of this rating is due to the fact that upland vegetation is protecting the streambanks along Cow Creek.

Kemry Draw is the largest ephemeral tributary of Cow Creek and is located in the northwestern portion of the allotment. A small hillside seep is present above the drainage channel about one half mile above the confluence with Cow Creek. Early in the spring, the source area is well covered by a diverse herbaceous wetland community, but where water drains down the slope, it is lacking vegetative cover mainly due to trampling by wildlife and livestock. By mid summer, excessive trampling (primarily by elk) occurs at the source area. Because of this, it is currently rated as non-functional.

A spring a short distance downstream of the seep discharges within the stream channel of Kemry Draw. Additional flow is provided through a series of seeps near the upper and middle portions of this riparian reach which is about one-half mile long. The upper portion of this system is marginally riparian, due to seasonal spring flow, but good sedge cover on the streambanks is apparent downstream. Some wildlife and livestock trampling and streambank shear is present in the upper portion of the reach. Areas where water is seeping towards the stream channel are considered to be separate lentic riparian systems and are well covered by sedges. Stream segments where only the lotic riparian system is present supports a narrower riparian area. All of the lentic riparian areas and the majority of the lotic areas are functioning properly. The lower end of the lotic system has a grove of cottonwood trees which provide shade to cows. In this area, sedges and terrace vegetation are heavily grazed or trampled. The lotic portion of the Kemry Draw system is functioning at risk due mainly to the condition of the lower reach.

Environmental Consequences, Proposed Action: Implementation of the Proposed Action would result in a shorter season of use at a reduced stocking rate, reducing livestock pressure on riparian plants in the spring when palatability is highest and reducing grazing pressure overall through the grazing of fewer animals. The Emerald Mountain Allotment is well-watered, with nine ponds and one developed spring scattered evenly across the allotment. This abundance of water available to livestock and wildlife reduces the animals' dependence upon surface water present in riparian areas and would serve to reduce pressure on these areas during the drier late summer and early fall. Inventory of the riparian resources has only begun and it appears that elk use is having the greater impact on riparian resources in many areas.

Environmental Consequences, No Action: If fully implemented, this alternative would not

be favorable to the riparian resources in the Emerald Mountain Allotment. The early grazing period in the spring likely would cause harm to the herbaceous upland vegetation that is protecting the streambanks and floodplains along Cow Creek. Excessive hoof shear on the streambanks would also be expected when soils are muddy following the spring thaw and later when runoff waters begin to rise. The fall use to December 31 would result in more browsing on the woody riparian plants along Cow Creek. After the snowpack melts and the cows are able to move into the uplands, spring sources would provide water in the early spring if ponds are frozen. This could have very detrimental effects on the soils and riparian vegetation if the riparian system has to withstand spring runoff.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 8/6/07

WILD & SCENIC RIVERS

Affected Environment: Not present.

Environmental Consequences, all alternatives: None

Mitigative Measures: None

Name of specialist and date: Rob Schmitzer 7/2/07

WSAs, WILDERNESS CHARACTERISTICS

Affected Environment: Not present.

Environmental Consequences, all alternatives: None

Mitigative Measures: None

Name of specialist and date: Rob Schmitzer 7/2/07

NON-CRITICAL ELEMENTS

SOILS

Affected Environment: Most of the soils within this allotment are comprised of Foidel loams, 30 to 65 percent slopes and the Peeler-Pagosa complex, 30 to 65 percent slopes. Parent materials of the Peeler soils are colluvium derived from igneous and metamorphic materials and alluvium derived from sandstone. The Pagosa soils it is described as loess over alluvium and residuum derived from sandstone and shale. Parent materials of the Foidel soils are colluvium derived from sandstone and shale and/or slope alluvium derived from sandstone and shale.

These soils occupy most of the areas east of Cow Creek and are representative of the mountain slopes in the higher elevations of the allotments. Numerous soils exist in the northwest and northeastern portion of the Emerald Mountain Allotment due to differences in geologic parent materials, and two other soil types are found in the valley along Cow Creek.

The soils adjacent to Cow Creek have not been given a soil series name, but are taxonomically referred to as Fluvaquent Haplocryolls, 0 to 3 percent slopes. The parent material of this soil is mixed alluvium (from sandstone and shale) and it is found on floodplains and stream terraces. This soil is somewhat poorly drained, and it can have a seasonally high water table. The Clayburn very gravelly sandy loam, 30 to 50 percent slopes, very stony, soil type is directly upslope from the floodplain/terrace soil. Its parent material is colluvium and slope alluvium derived from sandstone. In the Emerald Mountain area the Clayburn soil occupies a narrow area along the footslopes and it is positioned directly below the Peeler-Pagosa complex soil. These soils have a very fine sandy loam to loamy surface textures, and about half of the soil types have a 1 to 2-inch duff layer. The Fluvaquent Haplocryolls soil has moderate to very rapid permeability and low to moderate water runoff. The remaining soils have slow to moderate permeability and high to very high runoff. The primary limitation these soils have for supporting livestock grazing is the 25 to 65 percent slopes on which they are located.

Environmental Consequences, all alternatives: The upland soils within the allotment are suited for livestock grazing and can remain stable and productive provided cover by a desirable perennial plant community is maintained. Adverse impacts to upland soils could occur if soils are muddy or wet when cattle are present within the allotment. Physical damage to the soil surface and herbaceous plants could occur under these conditions, which could lead to accelerated erosion and lower soil productivity. Upland soils in livestock concentration areas are prone to compaction and do not typically have adequate vegetative cover to protect against wind and water erosion.

Environmental Consequences, Proposed Action: Delaying livestock turnout until May 15 would provide additional time in the early growing season for the upland soils to dry out from soil moisture recharged by snowmelt and spring rains. Additional time for plants would be provided to produce forage and begin building root reserves needed for plant vigor. Reducing the grazing period in the fall by two full months would also reduce the potential for livestock to be on wet or saturated soils. The proposed grazing period would take advantage of the well distributed upland ponds within the allotments. The ponds would not be frozen and cattle would be able to water at them. The Proposed Action would benefit the upland soil resource by improving the forage component. An improved forage component would enhance the upland soil resource with better vegetative cover and more biomass, above and below ground. This would reduce potential soil erosion and increase soil fertility and productivity.

Environmental Consequences, No Action: This alternative would allow livestock to be in the allotment for an extended period of time, i.e., the entire growing season and beyond. The extended period of livestock use that could occur beginning March 1 and ending December 31 would ensure that cows are present in the allotment when soils are saturated, following the spring thaw and again in the late fall when moisture levels begin to recharge, prior to freezing.

The early spring and late fall periods allowed under this alternative would put additional pressure on forage resources in those portions of the allotment where livestock would tend to congregate, especially on the lower portions of the allotment, prior to the melt of the winter snowpack and as deeper snows accumulate in the fall. Early spring grazing each year could remove quality forage species from the lower lying areas and southern facing slopes. The stocking rate would not be reduced and the potential to have more cows on these same grazing areas would result in a decline in forage species and soil cover. This alternative, if fully implemented, would increase soil erosion.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 8/6/07

UPLAND VEGETATION

Affected Environment:

The plant communities on the Emerald Mountain Allotment include sagebrush shrubland, oak shrubland, serviceberry shrubland, snowberry shrubland, aspen forest, lodgepole pine forest, subalpine fir forest. These communities are described below.

Sagebrush Shrublands. The allotment has two sagebrush shrubland types: silver sagebrush (*Artemisia cana*) and big sagebrush (*Artemisia tridentata*).

Silver Sagebrush (Artemisia cana) Shrubland. The silver sagebrush shrublands generally occur along the major ephemeral drainages within the allotment. The density of silver sagebrush varies with grazing intensity, and this vegetation type supports a variety of graminoids and forbs. Some of the most common include Kentucky bluegrass, timothy, and smooth brome, which are agricultural in origin and are indicative of heavy livestock use. Common native forbs include goldenglow, yarrow, yampa, aspen fleabane, and beautiful cinquefoil. Rubber rabbitbrush, shrubby cinquefoil, and chokecherry are often present as well. Weeds such as Canada thistle, tarweed, and houndstongue are present within this community. Snowberry is a common co-dominant in this community.

Big Sagebrush (Artemisia tridentata) Shrubland. Big sagebrush shrublands also occur along the drainages or on higher south-facing ridges and are primarily composed of mountain big sagebrush. The big sagebrush shrublands generally occur in higher topographic positions above the silver sagebrush shrublands where soil moisture is reduced. Snowberry commonly occurs in this community, however green rabbitbrush and rubber rabbitbrush may also be present. Chokecherry, serviceberry and Gambel oak are occasional or occur in transitional areas.

Common forbs and graminoids include tapertip onion, nettleleaf giant hyssop, American vetch, Indian paintbrush, tailcup lupine, yampa, white sage, yarrow, harebell, Oregon grape, and Letterman needlegrass. Western wheatgrass is prevalent in drainage swales. Some areas include agricultural species such as Kentucky bluegrass, crested wheatgrass, timothy, and smooth brome. Weeds include Canada thistle, tarweed, houndstongue, and whitetop.

Oak (*Quercus gambelii*) Shrubland. Oak shrublands occur on most of the steep south-facing slopes of Emerald Mountain. They are dominated by Gambel oak which forms moderately dense to dense stands up to 10 to 15 feet high. The stands range from dense thickets with little understory to relatively mesic mixed-shrublands with a rich understory of shrubs, grasses, and forbs. These clonal stands often have a patchy distribution and include species such as serviceberry, big sagebrush, snowberry, chokecherry, and Woods' rose.

Common graminoids in the understory may include blue wildrye, fringed brome, prairie junegrass, Letterman needlegrass, and elk sedge. The forbs Oregon grape, horsemint, yampa, Eaton's thistle, tapertip onion, nettleleaf giant hyssop, Fendler meadow rue, yarrow, western sweet cicely, tailcup lupine, aspen daisy, and little sunflower are also common.

Serviceberry (*Amelanchier alnifolia*) Shrubland. The serviceberry shrubland forms a mosaic with the oak shrublands on the allotment. These shrublands contain serviceberry eight to ten feet high with an understory similar to that of the oak shrublands. Snowberry, Gambel oak, chokecherry, Wood's rose, and big sagebrush are common shrub associates.

Snowberry (*Symphoricarpos rotundifolius*) Shrubland. The snowberry shrublands generally occur adjacent to or intermixed with the sagebrush shrublands. These shrublands include numerous pasture grasses and weeds. In one area, bracken fern co-dominates.

Aspen (*Populus tremuloides*) Forest. Aspen forests are common within the allotment, occurring over a variety of aspects and slopes. They are best developed on the higher elevations and are often intermixed with subalpine fir. Several different aspen forest types are present including aspen/bracken fern, aspen/snowberry, aspen/serviceberry, and aspen/mixed herbaceous communities which are described below. In addition to the native species which dominate these communities, agricultural grasses and weeds are prevalent in some areas. These commonly include the noxious weed houndstongue, the weedy annual tarweed and the pasture grasses timothy and Kentucky bluegrass.

Aspen/Bracken Fern. Aspen forests with a dense understory of bracken fern occur on moist hillsides, drainages, and on poorly drained sites. Widely scattered serviceberry, chokecherry, Woods' rose, and snowberry occur in the shrub layer, often near gaps in the aspen canopy. At higher elevations, mountain maple and juvenile subalpine fir occur in the understory. Thick growth of bracken fern is the dominant feature of the understory. Where the density of bracken is reduced, a variety of native graminoids and forbs occur. These include graminoids such as Letterman needlegrass, alpine timothy, blue wildrye, and elk sedge. Common native forbs include nettleleaf giant hyssop, yampa, northern bedstraw, goldenglow, false hellebore, Fendler meadowrue, Geyer's larkspur, and stinging nettle. In wetter areas, bluejoint reedgrass and monkshood also occur. In some areas, particularly along one of the ephemeral drainages east of Cow Creek, the aspen density is reduced and there are large stands of bracken fern without trees.

Aspen/Snowberry. On drier sites, generally on south and southwest-facing slopes, stands of aspen are characterized by a shrubby understory dominated by snowberry. Other important shrubs in this

community include serviceberry, mountain big sagebrush, Woods' rose, and chokecherry. The herbaceous understory is a diverse mixture of graminoids and forbs. Common native graminoids include blue wildrye, fringed brome, and spiked false oat. Common forbs include nettleleaf giant hyssop, yarrow, silvery lupine, western sweet cicely, showy goldeneye, American vetch, harebell, aspen fleabane, yampa, and Geyer's larkspur.

Aspen/Serviceberry. The aspen/serviceberry community occurs in more mesic sites than aspen/snowberry, but it generally supports a similar composition of herbaceous species. The distinguishing characteristic is a dominance of serviceberry in the understory which may reach ten to twelve feet in height. The herbaceous layer commonly includes blue wildrye, fringed brome, little sunflower, yampa, yarrow, American vetch, strawberry, nettleleaf giant hyssop, nettle, bedstraw, and Woods' rose. Big sagebrush, snowberry, and chokecherry are other shrubs that may occur as well. In general, the aspen/serviceberry is not as common as the aspen/snowberry community.

Aspen/Mixed Herbaceous. Aspen forests with an herbaceous understory are common along the moist drainages of the allotment. The understory is mainly composed of blue wildrye, goldenglow, butterweed groundsel, baneberry, bluntseed sweet cicely, and Richardson's geranium (*Geranium richardsonii*). In wet microsites, cow parsnip, monkshood, false hellebore, American speedwell (*Veronica americana*), and northern willowherb may occur.

Lodgepole Pine (*Pinus contorta ssp. latifolia*) Forest. Lodgepole pine occurs infrequently within the allotment. These forests occur at the higher elevations often intermixed with aspen or subalpine fir. The stands observed contain sticky laurel (*Ceanothus velutinus*) as well as other common associates such as elk sedge, fringed brome, heartleaf arnica, mountain goldenbanner, American vetch, blueberry (*Vaccinium myrtillus ssp. oreophilus*), and Woods' rose.

Subalpine Fir (*Abies bifolia*) Forest. Subalpine fir forests occur on the cooler and wetter north and east-facing slopes of Emerald Mountain and generally occur with aspen as a co-dominant. Some Engelmann spruce, blue spruce, and Douglas fir may occur in these forests as well. Ponderosa pine is infrequently present, but may occur on dry south-facing slopes. In subalpine fir stands, the understory is sparse with Oregon grape, bluntseed sweet cicely, bedstraw, Fendler meadowrue, blueberry, heartleaf arnica, and elk sedge predominating. In more open stands mixed with aspen, the understory is generally comprised of a thicker layer of herbaceous species including blue wild rye, bracken fern, bluntseed sweet cicely, and butterweed groundsel.

Environmental Consequences, Proposed Action: Cattle would be allowed access throughout the Emerald Mountain Allotment throughout much of the spring and all of the summer. The new grazing lease would continue to allow the season-long grazing to continue on this allotment as it has since 1999. Domestic cattle would graze and trample forage plants, particularly grasses and forbs. Long term damage to this component of plant communities occurs when these impacts occur repeatedly on individual plants in the same season. Stocking at proper rates and ensuring adequate livestock distribution are important considerations to ensure that forage resources are properly utilized in a sustainable way. The Proposed Action would result in a stocking rate of 9.7 acres per AUM, well in line with similar plant communities.

Water is provided for a short period in the early season by Cow Creek, but water is also provided by nine ponds distributed throughout the allotment (see Attachment 1). These ponds retain water throughout the grazing season and ensure that livestock do not congregate in any one area for extended periods.

Environmental Consequences, No Action: Continuing to permit grazing at the levels allowed by the SLB would result in degradation to forage resources. Six acres per AUM is a reasonable stocking rate for some of the more mesic plant communities present on the allotment, but much of the grazeable portions of the allotments are drier sagebrush-dominated communities which typically produce at a rate of 8 to 12 acres per AUM. Over stocking any rangeland can result in declines in desirable forage species, increases in weeds, and loss of soil.

Mitigative Measures: None

Name of specialist and date: Hunter Seim 6/27/07

WILDLIFE, AQUATIC

Affected Environment: Aquatic wildlife habitat would be limited to portions of Cow Creek along the western boarder of the allotment. Some livestock ponds within the allotment may provide marginal habitat for amphibian species. It is unknown if any fish species occupy Cow Creek within this allotment.

Environmental Consequences, all alternatives: Ponds located within this allotment were designed and built for livestock grazing and should not be considered as an impact to aquatic wildlife. Neither alternative would have a negative impact on aquatic wildlife habitats along Cow Creek.

Mitigative Measures: None

Name of specialist and date: Timothy Novotny 6/29/07

WILDLIFE, TERRESTRIAL

Affected Environment: The Emerald Mountain Allotment contains habitat for mule deer and elk including severe winter range and calving habitat for elk. A variety of small mammals, song birds and reptiles may also be found within the allotment.

Environmental Consequences, all alternatives: Livestock grazing has the potential to alter vegetation structure, composition, and function. Livestock compete with elk for forage. Excessive utilization can lead to degraded winter habitat and calving habitat. This could have a negative impact on elk populations within the area over a period of time if forage is over allocated and forage availability declines. It is unlikely that excessive use of forage plants as a result of livestock grazing would occur under either alternative. Neither alternative would have

an impact on small mammals, song birds, or reptiles.

Mitigative Measures: None

Name of specialist and date: Timothy Novotny 6/29/07

OTHER NON-CRITICAL ELEMENTS: For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Fluid Minerals	MDW 6/22/07		
Forest Management		JHS 6/27/07	
Hydrology/Ground		MDW 6/22/07	
Hydrology/Surface		OO 8/6/07	
Paleontology		MDW 6/22/07	
Range Management		JHS 6/27/07	
Realty Authorizations		LM 6/27/07	
Recreation/Travel Mgmt		RS 7/2/07	
Socio-Economics		LM 6/27/07	
Solid Minerals		JAM 7/2/07	
Visual Resources		RS 7/2/07	
Wild Horse & Burro Mgmt	KM 7/3/07		

CUMULATIVE IMPACTS SUMMARY: Until 2007, the lands comprising the allotment were administered by the Colorado State Land Board and not open to the public. Under BLM management, the allotment is open to non-motorized recreation which includes hiking, mountain biking, snowshoeing, and skiing and related trails and facilities at public access points such as parking areas.

Numerous maintained and unmaintained roads exist throughout the area, including on the allotment. Of these roads, only Cow Creek Road and other roads along the periphery of the allotment are used for motorized travel by local residents, ranchers, and the public. Roads within the allotment are only open to non-motorized use except for administrative use by public agencies, utilities, and by the grazing lessee. This limited use of roads my motorized means limits noise and dust presence, eliminates the potential of creation of “casual” routes, and limits the potential of weed spread.

Two large, parallel, lattice tower powerlines cross the allotment from east to west. An access road accompanies these powerlines. The right-of-way is cleared of all trees and other tall vegetation. Other than impacts from the access road, the impact from the powerlines is periodic clearing of trees within the right-of-way and visual impacts.

Existing fencing along the allotment perimeter and along Cow Creek presents another visual impact. The existence of fencing also creates the need for occasional off road travel for maintenance access which has the potential to spread weeds. This fencing also impacts wildlife as it presents impediments to the movements of elk and deer.

This allotment and areas surrounding have historically been grazed by cattle. Continuing livestock grazing on this allotment is compatible with other uses, both historic and present, and would not add any new or detrimental impacts to those that are already present.

STANDARDS

PLANT AND ANIMAL COMMUNITY (animal) STANDARD: The Emerald Mountain Allotment currently provides healthy productive habitat that is capable of supporting diverse wildlife populations. Livestock grazing at the levels allowed under the No Action Alternative would result in increased competition for forage resources and potential degradation that component of the habitat. The No Action Alternative would not meet this standard at the full use allowed by that alternative. The Proposed Action reduces the forage allocation and restricts livestock use to the active growing season. This is the management that has occurred for the last few years and, under this alternative, standard is currently being met and would continue to be met in the future.

Name of specialist and date: Timothy Novotny 6/29/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal) STANDARD: The Emerald Mountain Allotment contains potential habitat for Canada lynx, a federally threatened species. The Proposed Action would not result in degraded habitat for this species. Columbian sharp-tailed grouse may use portions of this allotment for nesting activities. Both alternatives could result in individual nests being trampled. This would not have a negative impact on populations of this species. This standard is currently being met. Both alternatives would ensure that this standard continues to be met in the future.

Name of specialist and date: Timothy Novotny 6/29/07

PLANT AND ANIMAL COMMUNITY (plant) STANDARD: The native plant communities on the Emerald Mountain Allotment, while not at full potential, are meeting this standard. In general, species composition and diversity are sufficient to meet this standard. There are some localized areas that contain significant amounts of undesirable plant species. Although some of these species are not native and/or perennial, they do provide canopy and litter cover that aid in the prevention of soil erosion. Permanent reductions in use that was allowed by the SLB use would work towards improving vigor, diversity, and reproductive capability. The Proposed Action would meet this standard on the Emerald Mountain Allotment.

The No Action Alternative would meet this standard in the short term as the current operator

does not desire a greater stocking rate, but allowing the AUMs to remain on the lease would allow the potential of other operators to apply for that use. Annual use at six acres per AUM would result in excessive use in canyon bottoms and increases in shrubs and invasive species. This alternative would not meet this standard.

Name of specialist and date: Hunter Seim 6/27/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant)

STANDARD: There are no federally listed threatened or endangered or BLM sensitive plant species on the Emerald Mountain Allotment. This standard does not apply.

Name of specialist and date: Hunter Seim 6/25/07

RIPARIAN SYSTEMS STANDARD: This standard would be met with implementation of the Proposed Action. Although some riparian systems are functioning at risk it is unclear what the trend of these systems is and what impacts would be attributed to livestock grazing and what impacts are due to elk and other wildlife.

This standard would not be met if the No Action Alternative is selected. The excessively long grazing period would put too much pressure on the woody riparian vegetation along Cow Creek and the upland vegetation that is protecting the streambanks and floodplain could be excessively grazed. Lower areas within tributary draws of Cow Creek, especially Kemry Draw, would likely be used by livestock to excessive levels. The additional months of livestock use in the early spring and late fall would not be well distributed within the allotment because winter snowpack would still be present in the spring and would begin to accumulate in the fall. Cows would be forced to the lower elevations in the allotment which would have less snow. Upland ponds may be frozen during the early spring and fall period forcing livestock to rely heavily on springs and seeps for water.

Name of specialist and date: Ole Olsen 8/6/07

WATER QUALITY STANDARD: The water quality standard for healthy rangelands would be met with implementation of either the Proposed Action or No Action Alternatives. Runoff from snowmelt and summer storms drains from the Emerald Mountain Allotment into stream segments that are presently supporting classified uses. No stream segments are listed as impaired.

Although this standard is currently met, the water quality of runoff waters from the allotment could be improved with the selection of the Proposed Action. The Proposed Action would be expected to improve the overall condition of the plant communities and upland soils in the allotment.

Name of specialist and date: Ole Olsen 8/6/07

UPLAND SOILS STANDARD: This standard would be met with the implementation of the Proposed Action. Shortening the grazing period by removing the early spring and late fall livestock use and reducing the AUMs would favor improved management of upland vegetation and decrease the amount of time that livestock are present on wet soils. Soils are well covered by mountain shrub, aspen, and sagebrush communities with a diverse understory of forbs and grasses. The plant communities provide good cover over the soils, as well as, good diversity, density and composition of plant species to provide for a mixture of root types for holding upland soils in-place. The dominant soils within this allotment are characterized as having a 1-inch duff layer providing additional cover and good nutrient cycling capability.

This standard would not be met if the No Action Alternative is selected. Livestock would be permitted on the allotment prior to the onset of spring. This would cause severe trampling on saturated soils and grazing on grasses and forbs while they are trying to emerge from dormancy. Repeated use in the spring would eventually cause a decline in desirable forage species, reducing above ground and below ground biomass.

Name of specialist and date: Ole Olsen 8/6/07

PERSONS/AGENCIES CONSULTED: Uintah and Ouray Tribal Council, Colorado Native American Commission, Colorado State Historic Preservation Office, Ed Trousil for Humble Ventures, LLC.

ATTACHMENTS: Attachment 1, Allotment Map
Attachment 2, Standard and Common Terms and Conditions

SIGNATURE OF PREPARER:

DATE SIGNED:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

Finding of No Significant Impact

The environmental assessment, analyzing the environmental effects of the proposed action, has been reviewed. With the implementation of the attached mitigation measures there is a finding of no significant impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas or designated Areas of Critical Environmental Concern.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State or local natural resource related plans, policies or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.
8. Based on previous and ongoing cultural surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.
9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.
10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED:

**ATTACHMENT #2
CO-100-2007-078 EA
TERMS AND CONDITIONS**

Standard Terms and Conditions

- 1) Grazing permit or lease terms and conditions and the fees charged for grazing use are established in accordance with the provisions of the grazing regulations now or hereafter approved by the Secretary of the Interior.
- 2) They are subject to cancellation, in whole or in part, at any time because of:
 - a. Noncompliance by the permittee/lessee with rules and regulations;
 - b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based;
 - c. A transfer of grazing preference by the permittee/lessee to another party;
 - d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described;
 - e. Repeated willful unauthorized grazing use;
 - f. Loss of qualifications to hold a permit or lease.
- 3) They are subject to the terms and conditions of allotment management plans if such plans have been prepared. Allotment management plans **MUST** be incorporated in permits and leases when completed.
- 4) Those holding permits or leases **MUST** own or control and be responsible for the management of livestock authorized to graze.
- 5) The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze.
- 6) The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.
- 7) Grazing permits or leases are subject to the nondiscrimination clauses set forth in Executive Order 11246 of September 24, 1964, as amended. A copy of this order may be obtained from the authorized officer.
- 8) Livestock grazing use that is different from that authorized by a permit or lease **MUST** be applied for prior to the grazing period and **MUST** be filed with and approved by the authorized officer before grazing use can be made.
- 9) Billing notices are issued which specify fees due. Billing notices, when paid, become a part of the grazing permit or lease. Grazing use cannot be authorized during any period of delinquency in the payment of amounts due, including settlement for unauthorized use.

- 10) Grazing fee payments are due on the date specified on the billing notice and MUST be paid in full within 15 days of the due date, except as otherwise provided in the grazing permit or lease. If payment is not made within that time frame, a late fee (the greater of \$25 or 10 percent of the amount owed but not more than \$250) will be assessed.
- 11) No member of, or Delegate to, Congress or Resident Commissioner, after his/her election of appointment, or either before or after he/she has qualified, and during his/her continuance in office, and no officer, agent, or employee of the Department of Interior, other than members of Advisory committees appointed in accordance with the Federal Advisory Committee Act (5 U.S.C. App. 1) and Sections 309 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) shall be admitted to any share or part in a permit or lease, or derive any benefit to arise therefrom; and the provision of Section 3741 Revised Statute (41 U.S.C. 22), 18 U.S.C. Sections 431-433, and 43 CFR Part 7, enter into and form a part of a grazing permit or lease, so far as the same may be applicable.

Common Terms and Conditions

- A) Grazing use will not be authorized in excess of the amount of specified grazing use (AUM number) for each allotment. Numbers of livestock annually authorized in the allotment(s) may be more or less than the number listed on the permit/lease within the grazing use periods as long as the amount of specified grazing use is not exceeded.
- B) Unless there is a specific term and condition addressing utilization, the intensity of grazing use will insure that no more than 50% of the key grass species and 40% of the key browse species current years growth, by weight, is utilized at the end of the grazing season for winter allotments and the end of the growing season for allotments used during the growing season. Application of this term needs to recognize recurring livestock management that includes opportunity for regrowth, opportunity for spring growth prior to grazing, or growing season deferment.
- C) Failure to maintain range improvements to BLM standards in accordance with signed cooperative agreements and/or range improvement permits may result in the suspension of the annual grazing authorization, cancellation of the cooperative agreement or range improvement permit, and/or the eventual cancellation of this permit/lease.
- D) Storing or feeding supplemental forage on public lands other than salt or minerals must have prior approval. Forage to be fed or stored on public lands must be certified noxious weed-free. Salt and/or other mineral supplements shall be placed at least one-quarter mile from water sources or in such a manner as to promote even livestock distribution in the allotment or pasture.

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

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

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

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

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