

**U.S. Department of the Interior**  
**Bureau of Land Management**  
**Glenwood Springs Field Office**  
**50629 US Highway 6 & 24**  
**Glenwood Springs, CO 81601**

## ENVIRONMENTAL ASSESSMENT

**NUMBER:** CO-140-2008-039 EA

**CASEFILE NUMBER:**

**PROJECT NAME:** Grazing Permit Renewal/Transfer for Hubbard Mesa and Magpie Creek allotments

**LOCATION:** T5S R93W – Hubbard Mesa No. 18903 and Magpie Creek No. 18901

**APPLICANT:** Barbara Lowery

**DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

**Proposed Action:** The Proposed Action is to transfer term grazing permit from Phyllis Hyrup (the former lease holder) to Barbara Lowery (the base property owner). The grazing schedule and grazing preference animal unit months (AUMS) will remain unchanged from the previous permit. It is likely that the cattle would be owned by someone else and a livestock pasturing agreement would be used to authorize use. The permit would be issued for a 10-year period, unless the base property is leased for less, but for purposes of the EA, we are assuming 10 years of grazing by this or another applicant (in case of transfer). The tables below summarize the level of scheduled grazing use and grazing preference for the proposed permit renewal.

**Scheduled Grazing Use** (mandatory terms and conditions):

<b>Allotment Name &amp; No.</b>	<b>Livestock No. &amp; Kind</b>	<b>Period of use</b>	<b>Percent Public Land</b>	<b>Type Use</b>	<b>AUMs</b>
Hubbard Mesa 18903	60 Cattle	5/16 to 6/15	100	Active	61
Magpie Creek 18901	60 Cattle	6/16 to 10/17	23	Active	56

**Grazing Preference AUMS:**

<b>Allotment Name &amp; No.</b>	<b>Total</b>	<b>Suspended</b>	<b>Active</b>
Hubbard Mesa 18903	120	60	60
Magpie Creek 18901	76	20	56

The following terms and conditions were included on the previous permit and will be included on the renewed permit:

- Maintenance of range improvements is required and shall be in accordance with all approved cooperative agreements and range improvement permits. Maintenance shall be completed prior to turnout.

**ALTERNATIVES CONSIDERED BUT ELIMINATED:**

The No Grazing alternative has been eliminated from further consideration. No unresolved conflicts involving alternative use of available resources have been identified. For this reason, discontinuance of grazing use (No Grazing) will not be considered or assessed.

The No Action alternative has also been eliminated from further consideration. The No Action alternative would involve reissuing the permit/lease with current terms and conditions and no additional stipulations would be added to the permit/lease. Reissuing the permit/lease without the new stipulations would be unrealistic due to current Washington Office and Colorado State Office policies.

**PURPOSE AND NEED FOR THE ACTION:** These permits/leases are subject to renewal or transfer at the discretion of the Secretary of the Interior for a period of up to ten years. The U.S. Bureau of Land Management has the authority to renew the livestock grazing permits/leases consistent with the provisions of the Taylor Grazing Act, Public Rangelands Improvement Act, Federal Land Policy and Management Act, and Glenwood Springs Field Office 's Resource Management Plan/Environmental Impact Statement. This Plan/EIS has been amended by Standards for Public Land Health in Colorado.

The renewal of the grazing permit is needed for the following reasons: (1) to meet the livestock grazing management objective of the Resource Management Plan of providing 56,885 animal unit months of livestock forage commensurate with meeting public land health standards, (2) to continue to allow livestock grazing on the specified allotment, (3) to meet the forage demands of local livestock operations, (4) to provide stability to these operations and help preserve their rural agricultural lands for open space and wildlife habitat, and (5) to allow use of native rangeland resource for conversion into protein suitable for human consumption.

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

Name of Plan: Glenwood Springs Resource Management Plan.

Date Approved: Jan. 1984, revised 1988, amended in November 1991 - Oil and Gas Leasing and Development - Final Supplemental Environmental Impact Statement; amended Nov. 1996 - Colorado Standards and Guidelines; amended in August 1997 - Castle Peak Travel Management Plan; amended in March 1999 - Oil and Gas Leasing & Development Final Supplemental Environmental Impact Statement; amended in November 1999 - Red Hill Plan Amendment; and amended in September 2002 – Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance.

Decision Number/Page: The action is in conformance with Administrative Actions (pg. 5) and Livestock Grazing Management (pg. 20).

Decision Language: Administrative actions states, “Various types of actions will require special attention beyond the scope of this plan. Administrative actions are the day-to-day transactions required to serve the public and to provide optimal use of the resources. These actions are in

conformance with the plan”. The livestock grazing management objective as amended states, “To provide 56,885 animal unit months of livestock forage commensurate with meeting public land health standards.”

### **STANDARDS FOR PUBLIC LAND HEALTH:**

The Colorado Standards for Public Land Health consist of 5 standards: upland soils, riparian systems, plant and animal communities, special status species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. The BLM is in the process of completing land health assessments on a landscape basis.

Both the Hubbard Mesa and Magpie Creek allotments were part of the Rifle Creek Land Health Assessment completed in 2001. Magpie Creek was determined to be meeting all standards while Hubbard Mesa failed to achieve standards 1(Upland Soils), 2(Riparian Systems), and 3(Native Plant and Animal Communities). Livestock grazing, particularly sheep grazing, was found to be a contributing factor in the failure to achieve or move towards achieving the standards. Since then changes were made to the permit authorizing sheep use on the allotment but no changes were made to the cattle permit. This permit was renewed in 2004 under the Appropriations Act and hence requires analysis for the proposed permit transfer and renewal.

### **COMPLIANCE WITH SECTION 302 OF FLPMA RELATIVE TO THE COMB WASH DECISION**

A review of applicable planning documents and a thoughtful consideration of new issues and new demands for the use of the public lands involved in this allotment have been made. This analysis concludes that the current land and resource uses are appropriate.

Reasons for the conclusion are: No new issues or new demands for the use of public lands involved in this grazing allotment have been identified since approval of the land use plan and amendments.

### **AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

This section provides a description of the human and natural environmental resources that could be affected by the proposed action and no action alternative. In addition, the section presents comparative analyses of the direct and indirect consequences on the affected environment stemming from the implementation of the various actions.

A variety of laws, regulations, and policy directives mandate the evaluation of the effects of a proposed action and alternative(s) on certain critical environmental elements. Not all of the critical elements that require inclusion in this EA are present, or if they are present, may not be affected by the proposed action and alternative (Table 1). Only those mandatory critical elements that are present and affected are described in the following narrative.

In addition to the mandatory critical elements, there are additional resources that would be impacted by the proposed action and alternative. These are presented under **Other Affected Resources**.

### **Critical Elements**

<b>Table 1. Critical Elements of the Human Environment</b>									
<i>Critical Element</i>	<i>Present</i>		<i>Affected</i>		<i>Critical Element</i>	<i>Present</i>		<i>Affected</i>	
	Yes	No	Yes	No		Yes	No	Yes	No
Air Quality	X			X	Prime or Unique Farmlands		X		X
ACECs	X			X	Special Status Species*	X		X	
Cultural Resources	X			X	Wastes, Hazardous or Solid		X		X
Environmental Justice	X			X	Water Quality, Surface and Ground*	X		X	
Floodplains		X		X	Wetlands and Riparian Zones*	X		X	
Invasive, Non-native Species	X		X		Wild and Scenic Rivers		X		X
Migratory Birds	X		X		Wilderness/ WSAs		X		X
Native American Religious Concerns		X		X					

\* Public Land Health Standard

### **Areas of Critical Environmental Concern**

Affected Environment: The proposed action occurs within the Magpie Gulch ACEC. This ACEC was designated in the Roan Plateau Plan, 2008 for its scenic, natural processes or systems, and wildlife habitat relevant and important values.

Environmental Consequences: Grazing itself within the ACEC is not likely to have any direct effect on any of the identified relevant and important values for which the ACEC was designated. However, all management actions related to this permit must meet the management prescriptions for Areas of Critical Environmental Concern (ACEC) found in the Roan Plateau Planning Area, Resource Management Plan Amendment and Environmental Impact Statement, Final, Volume I, August 2006, pages 2-74 thru 2-76. The objective of these prescriptions is to protect visual resources, preserve existing natural character of the landscape, identified raptor nest sites, maintain habitat connectivity and avoid displacement of wildlife, protect and minimize disturbance to wintering big game, and to protect the ecological integrity and function of the old-growth Douglas-fir community.

Mitigation: All actions, specifically involving maintenance and/or development of livestock developments related to this permit must meet the management prescriptions identified in the Roan Plateau Planning Area, Resource Management Plan Amendment and Environmental Impact Statement, Final, Volume I, August 2006, pages 2-74 thru 2-76.

### **Cultural Resources and Native American Religious Concerns**

Affected Environment: Range permit renewals are undertakings under Section 106 of the National Historic Preservation Act. Additional range improvements (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 (GSFO #1008-6) was completed for the Hubbard Mesa and Magpie Creek Allotments (#18903 & 18901) on February 28, 2008 following 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, CO-2001-026, and CO-2002-029. The results of the assessment are summarized in the table below. A copy of the cultural resource assessment is available at the GSFO office.

Allotment Number	Acres Inventoried at a Class III level	Acres NOT Inventoried at a Class III Level	Percent (%) Allotment Inventory data Class III level	Number of Cultural Resources known in allotment	High Potential of Historic Properties (yes/no)	Management Recommendations (Additional inventory required and historic properties to be visited)
Hubbard Mesa 18903	2358	6761	26	96	yes	No additional acres need to be inventoried. 18% of the allotment has 30%+ slopes.
Magpie Creek 18901	2809	2380	15	5	no	No additional acres need to be inventoried. 57% of the allotment has 30%+ slopes.
Total	5167	9141	41	101		

Thirty-three Class III cultural resource inventories have been conducted within these allotments. Fifteen historic properties ranging from prehistoric open camps to homesteads and irrigation ditches are considered eligible or potentially eligible for listing on the National Register of Historic Places. Unidentified historic era sites within this allotment could represent a time frame from the late 1800's through the 1950's; prehistoric sites could represent a time range from 200 to 10,000 years before present. Based on available data, there is a high potential for historic properties within the Hubbard Mesa allotment and a low potential for historic properties within the Magpie Creek allotment.

Subsequent site field visits, inventory, and periodic monitoring may have to be done on historic properties identified within the term of the permit and as funds are made available. If the BLM determines that grazing activities will adversely impact the properties, mitigation will be identified and implemented in consultation with the Colorado SHPO.

At present, there are no known areas of Native American concern within these allotments. On November 15, 2007 the Glenwood Springs Field Office mailed an informational letter and maps to the Ute Tribe (Northern Ute Tribe), Southern Ute Tribe, and the Ute Mountain Ute Tribes, identifying the proposed 2008 grazing permit renewals. No response has been received. In the past the Tribes have not had any concerns with grazing permit renewals. If new data is disclosed, new terms and conditions may have to be added to the permit to accommodate their concerns. The BLM will take no action that would adversely affect these areas or location without consultation with the appropriate Native Americans.

**Environmental Consequences:** 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.

If additional historic properties are located during the subsequent range developments field inventory, these properties will also be assessed for livestock grazing impacts within the term of the permit.

**Mitigation:** Maintenance of range improvements not previously inventoried or new improvements will be subject the Roan Plateau Planning Area cultural resource management plan which could include cultural resource inventories, monitoring, and/or data recovery if historic properties can not be avoided. These allotments may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM may require modification to development proposals to protect such properties, or disapprove any activity that is likely to result in damage to historic properties or areas of Native American concern.

Education/Discovery stipulation needs to be added to the lease renewal.

The permittee and all persons specifically associated with grazing operations must be informed that any objects or sites of cultural, paleontological, or scientific value such as historic or prehistoric resources, graves or grave markers, human remains, ruins, cabins, rock art, fossils, or artifacts shall not be damaged, destroyed, removed, moved, or disturbed. If in connection with allotment operations under this authorization any of the above resources are encountered, the proponent shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM authorized officer of the findings. The discovery must be protected until notified in writing to proceed by the authorized officer (36CFR800.110 & 112, 43CFR 0.4).

### **Environmental Justice**

**Affected Environment:** Review of 2004 data from US Census Bureau indicates the median annual income of Garfield County averages \$50,119 and is neither an impoverished or wealthy county. Median annual income of Eagle County averages \$59,037 and is not impoverished but is considered a wealthy county. U.S. Census Bureau data from 2006 shows the minority population of Garfield and Eagle County comprises less than 0.3 % of the total population of Colorado<sup>1</sup>.

Garfield County
Median Household Income (2004)
Estimate
\$50,119

**Environmental Consequences/Mitigation:** The proposed action and alternatives are not expected to create a disproportionately high and adverse human health impact or environmental effect on minority or low-income populations within the area.

### **Invasive, Non-native Species**

**Affected Environment:** An official survey for the presence of noxious weeds and non-native species has not been conducted on the Hubbard Mesa and Magpie Creek Allotments. However,

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<sup>1</sup> Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, Census of Population and Housing, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits, Consolidated Federal Funds Report  
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according to the Rifle Creek Watershed land health assessment, conducted in 2002; houndstongue, musk thistle, cheatgrass and Canada thistle were present within the watershed.

Environmental Consequences: Wind, water, vehicles, animals, and people transport weeds. Weeds generally germinate and become established in areas of surface disturbing activities such as road construction and maintenance, vehicular traffic, big game and livestock grazing. Livestock grazing can contribute to the establishment and expansion of noxious weeds through various mechanisms. Improperly managed grazing, (over-grazing), can cause a decline in desirable native plant species and ground cover which provides a niche for noxious weed invasion. In addition, noxious weed seed can be transported and introduced to new areas by fecal deposition or by seed that clings to the animal's coat. Conversely, properly managed livestock grazing which does not create areas of bare ground and which maintains the vigor and health of native plant species, particularly herbaceous species, is not expected to cause a substantial increase in noxious weeds. Since the proposed action was designed to sustain and/or improve land health, no significant impacts to non-native, invasive species are expected.

### **Migratory Birds**

Affected Environment: Vegetative communities in the Hubbard Mesa allotment consist primarily of salt desert shrubs, sagebrush and pinyon-juniper woodlands. The Magpie Creek allotment consists of sparse pinyon-juniper woodlands, sagebrush and mixed mountain shrublands with patches of Douglas fir. Given the mix and diversity of vegetation present, these allotments provide cover, forage and nesting habitat for a variety of migratory bird species. Priority species on the USFWS Birds of Conservation Concern List that may nest in the area include: sage sparrow, Virginia's warbler, pinyon jay and black-throated gray warbler. Golden eagles, red tailed hawks and other raptors likely nest and forage on the allotments.

Environmental Consequences: Although the proposed grazing schedules for the two allotments coincide with the breeding season, it is unlikely that livestock grazing would reduce the extent or quality of habitat available for migratory bird breeding functions. Under the proposed action, the Magpie Creek allotment would be grazed for approximately four months. Although grazing would occur during most of the growing season, the allotment is grazed in conjunction with private land, which should help to distribute livestock and reduce concentration on public lands. Data from the LHA and recent monitoring show this allotment to be in good condition, providing suitable habitat for a variety of migratory bird species. The proposed action would not be expected to degrade migratory bird habitat on this allotment.

The proposed action would allow grazing on the Hubbard Mesa allotment from mid-May to mid-June. This grazing schedule should allow for ample growing season rest and adequate plant recovery periods. A formal land health assessment conducted in 2001 found that the Hubbard Mesa allotment was not meeting the standard for healthy plant and animal communities. Sagebrush shrubs were severely hedged. Sagebrush stands were in a late seral stage and encroachment by pinyon and juniper trees was occurring. Cheatgrass and annual forbs dominate in several areas and were common in many other parts of the allotment. However, cattle grazing at the season of use, duration and intensity of the previous (and proposed) permit was not considered to be a contributing factor in the failure to meet the standards. Causal factors included sheep grazing and OHV use. Changes are being made to the sheep permit, however, it may take several years and some vegetation treatments for this allotment to begin to meet standards. The proposed action would not prevent improvements in the vegetative communities.

No intentional take of native bird species is anticipated under the proposed action. Grazing by cattle could result in the accidental destruction of ground nests through trampling. This impact is expected to be minimal and isolated and would not influence populations of migratory birds on a landscape level.

#### **Special Status Species (includes an analysis of Public Land Health Standard 4)**

##### Affected Environment:

According to the latest species list from the U. S. Fish and Wildlife Service (<http://mountain-prairie.fws.gov/endspp/CountyLists/COLORADO.pdf>), the following Federally listed, proposed, or candidate plant and animal species may occur within or be impacted by actions occurring in Garfield County: Uinta Basin hookless cactus (*Sclerocactus glaucus*), Ute Ladies' Tresses (*Spiranthes diluvialis*), Parachute beardtongue (*Penstemon debilis*), DeBeque phacelia (*Phacelia submutica*), Canada lynx (*Lynx canadensis*), Mexican spotted owl (*Strix occidentalis*), yellow-billed cuckoo (*Coccyzus americanus*), razorback sucker (*Xyrauchen texanus*), Colorado pikeminnow (*Ptychocheilus lucius*), bonytail chub (*Gila elegans*), and humpback chub (*Gila cypha*).

There are no known occurrences of any threatened, endangered, or candidate plant species within the Hubbard Mesa or Magpie Creek allotments. The BLM Sensitive plant, DeBeque milkvetch (*Astragalus debequaeus*) has been reported on steep slopes of the Wasatch formation in the southwest portion of the Hubbard Mesa allotment.

Two BLM sensitive wildlife species, the midget faded rattlesnake and the Great Basin spadefoot toad have been documented in the Hubbard Mesa allotment. The midget faded rattlesnake is endemic to a small area of southwestern Wyoming, northwestern Colorado and adjacent Utah. Suitable habitats include sandy and rocky areas in juniper woodlands and semi-desert shrublands. In Colorado, the Great Basin spadefoot toad inhabits pinyon-juniper woodlands, sagebrush and semi-desert shrub communities. It ranges from the bottoms of rocky canyons to broad dry basins and stream floodplains, although sagebrush habitats below 6,000 feet in elevation are the preferred type (CDOW 2006). Other habitat types required for their survival include: over wintering burrow sites, temporary breeding ponds and foraging areas, and safe passages between these areas.

##### Environmental Consequences:

###### *DeBeque milkvetch*

The steep, barren slopes where the DeBeque milkvetch population was reported receives little or no grazing use and therefore, there would be no direct impacts to this species from the proposed action. Livestock grazing which encourages the invasion or expansion of noxious weeds could result in indirect impacts to the milkvetch from competition with weeds. The proposed grazing use on the Hubbard Mesa allotment is for 60 cows for one month in late spring. This should not result in areas of bare ground or a reduction in species diversity that would promote weed encroachment.

###### *Midget faded rattlesnakes and Great Basin spadefoot toads*

Cattle grazing as described in the proposed action would have minimal impacts to midget faded rattlesnakes and Great Basin spadefoot toads. Although heavy grazing could impact snakes by removing cover important for prey species, the short duration of cattle grazing on the allotment would be unlikely to result in heavy utilization of grasses and forbs. Cattle grazing could have some impacts to toads from soil and burrow compaction, trampling, loss of cover and reduced water quality (Sarell 2008). However, due to the short duration of cattle grazing and the low stocking rate, these impacts would be minimal and isolated.

Analysis on the Public Land Health Standard for Special Status Species: A formal land health assessment was completed for the Hubbard Mesa and Magpie Creek allotments in 2001. The allotments

were determined to be meeting Standard 4 for special status species at that time. The proposed grazing use should not result in a failure to maintain the standard for special status species

**Water Quality, Surface and Ground (includes an analysis of Public Land Health Standard 5)**

Affected Environment: The Magpie and Hubbard Mesa Allotments are located in Garfield County north of the City of Rifle within the 16,848 acre Upper Government Creek, 6,773 acre Thirty-Two Mile Gulch, 5,222 acre Lower Government Creek, and the 4,693 acre Hubbard Gulch 6<sup>th</sup> field watersheds. Within these allotments are the ephemeral Magpie Creek, the ephemeral Thirty-Two Mile Creek, the ephemeral Hubbard Creek, and several unnamed ephemeral tributaries to the intermittent Government Creek.

The drainages mentioned above are not currently on the State of Colorado’s *Stream Classifications and Water Quality Standards* (CDPHE, Water Quality Control Commission, Regulation No. 37) list, the *303(d) List of Water Quality Limited Segments Requiring TMDLS* (CDPHE, Water Quality Control Commission, Regulation No. 93), or the *Monitoring and Evaluation List* (CDPHE, Water Quality Control Commission, Regulation No. 94).

Limited water quality data exists for Magpie Gulch, Thirty-Two Mile Creek, and Government Creek. Most of this data was collected by the BLM Glenwood Springs Field Office in 2001 as part of the Rifle Creek Land Health Assessment. From this land health assessment, personnel concluded that Government Creek generally is high in sediment loads and total dissolved solids that include calcium, magnesium, and sulfate. These water quality findings are likely the result of geology, vegetation type, OHV use, and sheep grazing within the Government Creek watershed. The table below presents the results from water quality data collected in 1981 and during the 2001 Rifle Creek Land Health Assessment.

Stream Name	Date	Flow (cfs)	Temp. (C)	Cond. (uS\cm)	pH	Salinity 0/00	Sediment (mg/l)
Magpie Gulch	5/8/2001	0.66	5	610	8.4		
Government Creek near Magpie Gulch	5/23/2001	0.26	11	1730	8.6	1.25	
Government Creek blw Magpie Gulch	5/23/2001	0.53	12	1400	8.6	1.1	
Thirty Two Mile Gulch- upper reach	5/7/2001	0.07	15	1080	8.5	0.8	
Thirty Two Mile Gulch- abv Hwy 13	5/8/2001	0.001	27	1750	8.5		
Government Creek abv JQS Road	5/7/2001	1.97	23	1100	8.4	1	
Government Creek nr 32 Mesa Rd	5/7/2001	1.6	20	1305	8.6	1	
Government Creek (6 samples)	4/8/1981	0.2-3.4	11.5-22	1290-3950	8.6		5260 & 8370

Environmental Consequences: Grazing activities would result in soil compaction and displacement that increase the likelihood of erosional processes, especially on steep slopes and areas devoid of vegetation. Soil detachment and sediment transport are likely to occur during runoff events associated with spring snowmelt and short-duration high intensity thunderstorms. Due to the close proximity of the proposed activities to area drainages, there is a high potential that additional sediment associated with grazing practices could reach the above mentioned ephemeral drainages as well as Government Creek. With the implementation of grazing standards and guidelines, it is expected that the potential negative impacts

described above would be short-term and localized. Consequently, no additional site specific mitigation is recommended at this time.

Analysis on the Public Land Health Standard for Water Quality: As mentioned above, the BLM Glenwood Springs Field Office completed the Rifle Creek Land Health Assessment in 2001. At that time, water quality data was collected that appeared to be high in sediment loads and total dissolved solids. Based on existing information, it can be assumed that the proposed activities would not likely prevent Standard 5 for Water Quality from being met but may contribute additional sediment to the above mentioned drainages.

**Wetlands and Riparian Zones (includes an analysis on Standard 2)**

Affected Environment: The table below lists known riparian areas and their Proper Functioning Condition (PFC) assessment for each allotment:

Allotment	Riparian Area Name	Approx. Miles	Year Assessed	Condition Rating
Hubbard Mesa	Government Creek Lower Reach 1	0.6	2001	Functioning at Risk - Downward Trend
	Government Creek Lower Reach 2	2.5	2001	Functioning at Risk - Not Apparent Trend
	Government Creek Upper Reach 1	0.4	2001	Functioning at Risk - Downward Trend
Magpie Creek	Magpie Gulch	0.9	2001	Proper Functioning Condition

Off highway vehicle (OHV) use was the causal factor identified for the condition rating on Government Creek Lower Reach 1. Livestock grazing was not listed as an issue. The causal factor for the condition rating on Government Creek Lower Reach 2 was listed as poor water quality and flashy runoff. Sheep grazing/trailing was listed as the causal factor for the condition rating for Government Creek Upper Reach 1. There were no issues or concerns identified for Magpie Gulch. A riparian photo plot was established on Magpie Gulch in 2007. Judging from the photo, the riparian zone appears to be in good condition. Other current monitoring, inventory or documented field observations is lacking for affected riparian areas other than the proper functioning condition assessments listed above.

Environmental Consequences/Mitigation: The Hubbard Mesa Allotment would be grazed by cattle for a 31 day period in the spring. The period of use would allow for ample grazing rest and recovery time for riparian plant species. As discussed in the Affected Environment section, causal factors for the unsatisfactory condition of Government Creek are due to OHV use and sheep grazing/trailing. Cattle grazing is not the issue; however, riparian area conditions are not likely to improve unless OHV and sheep use are properly managed. The cattle grazing as proposed is not expected to cause adverse impacts to riparian zones.

The Magpie Creek Allotment would be grazed by cattle for a four month period in the summer. Riparian conditions could decline should cattle grazing occur continuously on riparian areas for the four month grazing period since this offers little rest and recovery time for riparian plant species. In the event cattle congregate along the creeks the potential for severe utilization and trampling of the riparian vegetation could result which can cause a decline in condition (i.e. a reduction in coverage and a decrease in species composition) of the riparian zone. Considering the condition of riparian area, the situation above does not appear to be occurring. Since the allotment is listed at 23 percent public land, most of the grazing use probably occurs on the private land. In addition, Magpie Gulch has an intermittent flow and is dry most of the summer. Most of the grazing use likely occurs during the period of flow and for a much shorter

period than the four months indicated on the grazing permit. Given the circumstances above, there would be adequate grazing rest and recovery time for riparian plant species. Adverse impacts to riparian zones are not expected.

Analysis on the Public Land Health Standard for riparian systems: The proposed action would not result in failure to achieve this standard and should maintain and/or improve land health conditions for riparian systems.

**Other Affected Resources**

In addition to the critical elements, the resources presented in Table 2 were considered for impact analysis relative to the proposed action and no action alternative. Resources that would be affected by the proposed action and no action alternative are discussed below.

<b>Table 2. Other Resources Considered in the Analysis.</b>			
<i>Resource</i>	<i>NA or Not Present</i>	<i>Present and Not Affected</i>	<i>Present and Affected</i>
Access and Transportation	X		
Cadastral Survey	X		
Fire/Fuels Management		X	
Forest Management		X	
Geology and Minerals	X		
Law Enforcement	X		
Paleontology	X		
Noise	X		
Range Management			X
Realty Authorizations	X		
Recreation	X		
Socio-Economics	X		
Soils			X
Vegetation			X
Visual Resources		X	
Wildlife, Aquatic			X
Wildlife, Terrestrial			X

**Range Management**

Affected Environment: Refer to the Proposed Action section for the description of the Affected Environment.

Environmental Consequences: Authorizing livestock grazing on these allotments will allow the adjacent base property holder to use forage produced on public land to supplement their livestock operation. This increases the likelihood that the adjacent ranch can be sustained and benefits both livestock and wildlife.

**Soils (includes an analysis of Public Land Health Standard 1)**

Affected Environment: According to the *Soil Survey of Rifle Area, Colorado: Parts of Garfield and Mesa Counties* (USDA 1985) the Magpie and Hubbard Mesa Allotments contain 18 different soil map

units that can be identified by the numerical code assigned by the soil survey mentioned above. These soil map units are scattered throughout the allotments and most of them have been identified as having moderate to severe erosion hazards. In addition, portions of the two allotments are mapped as CSU 4 (Controlled Surface Use) for erosive soils on slopes greater than 30% and NSO 15 (No Surface Occupancy) for slopes greater than 50% regardless of soil type. Following is a brief description of the soil map units found within the Magpie and Hubbard Mesa Allotments.

- Arvada loam (3, 4) – This deep, well drained, sloping soil is found on fans and high terraces at elevations ranging from 5,100 to 6,200 feet and on slopes of 1 to 20 percent. This soil is derived from sandstone and shale and was formed in saline alluvium. Surface runoff for this soil is medium to moderately rapid and erosion hazard is moderate to severe. Primary uses for this soil include wildlife habitat, grazing, and irrigated farming.
- Ascalon-Pena complex (7) – This soil map unit is found on the sides of valleys and alluvial fans at elevations ranging from 5,000 to 6,500 feet and on slopes of 6 to 25 percent. The Ascalon soil makes up about 65 percent of the unit and is found on lower angle slopes while the Pena soil makes up about 25 percent of the unit and is found on steeper slopes. The Ascalon soil is deep, well drained and has medium surface runoff with moderate erosion hazard. The Pena soil is deep, well drained and has slow surface runoff with moderate erosion hazard. Primary uses for this complex include wildlife habitat and limited grazing.
- Badland (9) – This soil map unit consists of steep, barren land that has been dissected by intermittent drainages. This unit occurs in soft shale, sandstone, and siltstone of the Green River, Wasatch, Mancos, and Mesa Verde Formations. This soil map is approximately 85 percent unvegetated, has very severe erosion hazard, and frequent active erosion.
- Cushman-Lazear stony loam (21) – This soil map unit is found on mountainsides and mesa breaks at elevations ranging from 5,000 to 7,000 feet and on slopes of 15 to 65 percent. They are derived from sandstone and shale rocks. Approximately 45 percent of this soil map unit is Cushman soil, 40 percent Lazear soil, and the other 15 percent a mixture of soil types. The Cushman soil is moderately deep, well drained and has medium surface runoff with severe erosion hazard. The Lazear soil is shallow, well drained and has moderately rapid surface runoff with severe erosion hazard. Primary uses for this soil include wildlife habitat and grazing.
- Detra fine sandy loam (23) – This deep, well drained soil is found on mountainsides at elevations ranging from 6,500 to 8,000 feet and on slopes of 12 to 25 percent. This soil is derived from red-bed shale and sandstone. Surface runoff for this soil is slow and the erosion hazard is slight. Primary uses for this soil include grazing and wildlife habitat.
- Ildefonso stony loam (34) - This deep, well drained, hilly soil is found on mesas, sides of valleys, and alluvial fans at elevations from 5,000 to 6,500 feet and on slopes of 25 to 45 percent. This soil is derived primarily from basalt and may contain a small amount of eolian material at the top of the unit. Surface runoff for this soil is medium and erosion hazard is severe. Primary uses for this soil include grazing and wildlife habitat.
- Irigul channery loam (37) – This shallow, well drained soil is found on north-facing ridges and mountainsides at elevations ranging from 7,800 to 8,700 feet and on slopes of 50 to 70 percent. It is derived from sandstone and marlstone rocks. Surface runoff for this soil is rapid and the erosion hazard is severe. This soil is used primarily for wildlife habitat.
- Jerry loam (39) – This deep, well drained soil is found on mountainsides at elevations ranging from 7,000 to 9,500 feet and on slopes of 12 to 50 percent. Parent material for this soil is sandstone, shale, and basalt. Surface runoff for this soil is slow and the erosion hazard is moderate. Primary uses for this soil include wildlife habitat and grazing.

- Nihill channery loam (47) – This soil map unit is deep, well drained, and is found on alluvial fans and the sides of valleys at elevations ranging from 5,000 to 6,500 feet and on slopes of 6 to 25 percent. This soil is derived from Green River shale and sandstone parent material. Surface runoff for this soil is slow and erosion hazard is severe. Primary uses for this soil include grazing and wildlife habitat.
- Olney loam (51) – This deep, well drained soil is found on alluvial fans and sides of valleys at elevations ranging from 5,000 to 6,500 feet and on slopes of 6 to 12 percent. Parent material for this soil is sandstone and shale. Erosion hazard is moderate and surface runoff is medium. Primary uses for this soil include grazing, irrigated hay, and fruits.
- Potts-Ildefonso complex (57, 58) – These gently sloping soils are found on mesas and sides of valleys at elevations ranging from 5,000 to 6,500 feet and on slopes of 3 to 25 percent. The Potts soil is derived from sandstone, shale, and basalt; while the Ildefonso soil is derived from calcareous, basaltic alluvium with small amounts of eolian material. Approximately 60 percent of this complex is Potts soil and approximately 30 percent Ildefonso soil. Both soils are deep, well drained and have slow surface runoff with moderate erosion hazard. Primary uses for this soil complex include limited grazing and wildlife habitat.
- Torriorthents-Camborthids-Rock outcrop complex, steep (66) – This soil map unit consists of sandstone and shale bedrock and soils of variable depth occurring on slopes of 15 to 70 percent. About 45 percent of this complex is Torriorthents, 20 percent is Camborthids, and 15 percent is Rock outcrop. The Camborthids occur on the lower toe slopes on foothills and mountainsides while the Torriorthents are found on the foothills and mountainsides below the Rock outcrop. The Torriorthents are shallow to moderately deep, and clayey to loamy with gravel, cobbles, and stones. The Camborthids are shallow to deep and clayey to loamy. Rock outcrop primarily consists of Mesa Verde sandstones and Wasatch shales with occasional basaltic boulders and stones. This complex is characterized by moderate to severe erosion hazard. Primary uses for this complex include grazing, wildlife habitat, and recreation.
- Torriorthents-Rock outcrop complex, steep (67) – This complex consists of stony soils and exposed outcrops of Mesa Verde sandstone and Wasatch shale that occur on slopes of 15 to 70 percent. Approximately 60 percent of this complex is Torriorthents and 25 percent is Rock outcrop. The Torriorthents are clayey to loamy and contain gravel, cobbles, and stones; many of which are basaltic in origin. They are found on mountainsides below the Rock outcrop. Erosion hazard for this complex varies from moderate to severe. Primary uses for this complex include limited grazing, wildlife habitat, and recreation.
- Vale silt loam (68, 69) – This deep, well drained soil is found on mesas, terraces, and alluvial fans at elevations ranging from 5,000 to 7,200 feet and on slopes of 3 to 12 percent. This soil is derived from calcareous eolian material. Surface runoff for this soil is medium and the erosion hazard is classified as moderate. Primary uses for this soil include irrigation for crops and hay with small areas being used for grazing.
- Villa Grove-Zoltay loams (71) – These soils occur on mountainsides and alluvial fans at elevations ranging from 7,500 to 7,600 feet and on slopes of 15 to 30 percent. About 50 percent of this soil map unit is the Villa Grove soil and 40 percent the Zoltay soil. The remaining 10 percent of this soil map unit consists of varying amounts of Vale, Potts, and Morval soils. The Villa Grove soil is deep, well drained and has slow surface runoff with slight erosion hazard. The Zoltay soil is deep, well drained and has medium surface runoff with moderate erosion hazard. Primary uses for these soils include grazing, wildlife habitat, and irrigated pasture.

Environmental Consequences: Grazing activities within the Magpie and Hubbard Mesa Allotments would result in soil compaction and displacement, especially in areas where livestock would be concentrated such as watering areas and stock trails. Soil compaction and displacement would increase the likelihood of erosional processes such as soil detachment and sediment transport on steep slopes and areas devoid of vegetation. Soil detachment and sediment transport are likely to occur during runoff events associated with spring snowmelt and short-duration high intensity thunderstorms. These processes could result in rilling, rutting, and sediment deposition.

Due to the close proximity of the proposed activities to area drainages, there is a potential that sediment associated with grazing practices could be transported to the numerous drainages mentioned in the water section. With the implementation of grazing standards and guidelines, it is expected that the potential negative impacts described above would be short-term and localized. Consequently, no additional site specific mitigation is recommended at this time.

Analysis on the Public Land Health Standard for Upland Soils: In 2001, the BLM Glenwood Springs Field Office collected soils data as part of the Rifle Creek Land Health Assessment. At that time, soils throughout most of the assessment area appeared to be stable and functioning. Problems were however noted in the area as a result of natural geologic and vegetative conditions, OHV use, and grazing practices. Based on existing information, it can be assumed that the proposed activities would not likely prevent Standard 1 for Upland Soils from being met but would continue to have some negative impacts on soil resources were grazing activities occur.

### **Vegetation (includes an analysis of Public Land Health Standard 3)**

Affected Environment: Vegetative communities in the Hubbard Mesa allotment consist primarily of salt desert shrubs (sagebrush/greasewood), sagebrush/grasses, and pinyon-juniper woodlands. Understory species include galleta grass, Indian ricegrass, needle-and-thread, Sandberg bluegrass, prickly pear cactus, and several weedy annual forbs. The noxious weed, cheatgrass, is dominant in some areas and sparse in others. The Magpie Creek allotment consists of sparse pinyon-juniper on the lower elevations and south-facing slopes, sagebrush shrublands on the flatter benches, oakbrush/mixed mountain shrublands in the middle elevations and Douglas-fir patches in the upper elevations. There is also woody riparian vegetation along Magpie Creek which traverses through the allotment.

Environmental Consequences: A formal land health assessment conducted in 2001 found that the Hubbard Mesa allotment was not meeting the standard for healthy plant communities. Sagebrush communities were dominated by mature-to-old age class shrubs with many severely hedged and decadent plants. Cool-season grasses and perennial forbs were sparse at all but one site. Cheatgrass and annual forbs dominate in several areas and were common in many other parts of the allotment. In areas of heavy livestock or OHV use, microbiotic crusts were found only in protected areas under shrubs. Cattle grazing at the season of use, duration and intensity of the previous (and proposed) permit was not considered to be a contributing factor in the failure to meet the standards. Under the proposed action, the allotment would be grazed by cattle for a 31 day period in late spring. Given proper livestock distribution, this period and intensity of use should provide adequate recovery and regrowth periods for vegetative health and should not result in areas of bare ground or loss of vegetative cover and diversity that would encourage the establishment or spread of noxious weeds.

Analysis on the Public Land Health Standard for Plant and Animal Communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): In 2001, a formal land health assessment was conducted on the landscape which includes Hubbard Mesa and Magpie Creek allotments. The assessment determined that the Magpie Creek allotment was meeting all the Standards but that the Hubbard Mesa allotment was not meeting several of the Standards, including Standard 3 for healthy plant communities. Causal factors were

determined to be sheep grazing and OHV activity. Changes to the sheep grazing permit have been initiated, however, it may take many years before the vegetation on the allotment begins to make progress towards achieving the Standard. Cattle grazing, as proposed, should not prevent Standard 3 for healthy plant communities from being met.

### **Wildlife, Aquatic (includes an analysis of Public Land Health Standard 3)**

#### Affected Environment:

The Hubbard Mesa allotment contains two perennial streams. Approximately 1.2 miles of Thirty Two Mile Gulch is within the allotment and Government Creek is found just within the allotment border along the northeast and eastern boundary. Neither of these streams is known to contain fish, but aquatic insects are present.

Other than springs, the Magpie Creek allotment contains no perennial waters. Magpie Creek is ephemeral and only runs in response to spring snowmelt and summer thunderstorm events. The nearest perennial water is Government Creek located within .25 miles east of the allotment and it contains no fish but some limited aquatic insects.

#### Environmental Consequences/Mitigation:

Grazing activities would likely result in soil compaction and displacement which would increase the likelihood of erosional processes, especially on steep slopes and areas devoid of vegetation. Soil detachment and sediment transport are likely to occur during runoff events associated with spring snowmelt and short-duration high intensity thunderstorms. Due to the close proximity of the proposed activities to area drainages, there is potential that additional sediment associated with grazing practices could reach the above mentioned waters. Fish would not be impacted but aquatic insect productivity could be slightly impaired. Thirty Two Mile Gulch and Government Creek in particular, carry a lot of sediment and the minor additional amount anticipated from grazing would be negligible.

Analysis on the Public Land Health Standard 3 for Plant and Animal Communities (partial, see also Vegetation and Wildlife, Terrestrial): A formal Land Health Assessment was completed for the area in 2001. The Hubbard Mesa allotment was determined to not be meeting Standard 3 at that time for upland plants and wildlife. Livestock grazing was considered a contributory factor regarding the failure to meet the Standard. Government Creek was Functioning at Risk due to OHV and livestock use along the creek. The proposed action would likely maintain a static trend with regard to stream, riparian, and upland health and the non-attainment of the meeting of the Standard.

### **Wildlife, Terrestrial (includes an analysis of Public Land Health Standard 3)**

Affected Environment: Vegetative communities in the Hubbard Mesa allotment consist primarily of salt desert shrubs, sagebrush and pinyon-juniper woodlands. The Magpie Creek allotment consists of sparse pinyon-juniper, sagebrush and mixed mountain shrublands with patches of Douglas fir. These communities typically provide habitat for big game species as well as small mammals, reptiles and birds. Portions of the allotments are mapped as mule deer winter concentration areas and severe winter range (CDOW 2006).

Environmental Consequences: It is unlikely that the proposed action would have any long term negative impacts to terrestrial wildlife habitat. Under the proposed action, the Magpie Creek allotment would be grazed for approximately four months. Although grazing would occur during most of the growing season, the allotment is grazed in conjunction with private land, which should help to distribute livestock and reduce concentration on public lands. Data from the LHA and recent monitoring show this allotment

to be in good condition, providing suitable habitat for a variety of wildlife species. The proposed action would not be expected to degrade wildlife habitat on this allotment.

The proposed action would allow grazing on the Hubbard Mesa allotment from mid-May to mid-June. This grazing schedule should allow for ample growing season rest and adequate plant recovery periods. A formal land health assessment conducted in 2001 found that the Hubbard Mesa allotment was not meeting the standard for healthy plant and animal communities. Sagebrush shrubs were severely hedged. Sagebrush stands were in a late seral stage and encroachment by pinyon and juniper trees was occurring. Cheatgrass and annual forbs dominate in several areas and were common in many other parts of the allotment. However, cattle grazing at the season of use, duration and intensity of the previous (and proposed) permit was not considered to be a contributing factor in the failure to meet the standards. Causal factors included sheep grazing and OHV use. Changes are being made to the sheep permit, however, it may take several years and some vegetation treatments for this allotment to begin to meet standards. The proposed action would not prevent recovery of the vegetative communities on the Hubbard Mesa allotment.

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also **Vegetation and Wildlife, Aquatic**): In 2001, a formal land health assessment was conducted on the landscape which includes Hubbard Mesa and Magpie Creek allotments. The assessment determined that the Magpie Creek allotment was meeting all the standards but that the Hubbard Mesa allotment was not meeting several of the standards. Causal factors were determined to be sheep grazing and OHV activity and current cattle grazing was not contributing to the failure to meet standards. The proposed action would not preclude this standard from being met.

### **SUMMARY OF CUMULATIVE IMPACTS**

No cumulative impacts have been identified as part of this assessment.

### **PERSONS AND AGENCIES CONSULTED**

Notices of public scoping were issued through the Colorado BLM's Internet web page providing the public an opportunity to obtain information or offer concerns on grazing permits or allotments scheduled for renewal. There have been no responses received specific to the permit renewal or allotment addressed in this NEPA document. The Glenwood Springs Field Office Internet NEPA Register also lists grazing permit renewal NEPA documents that have been initiated. They are generally posted approximately one month prior to the estimated completion date.

Barbara Lowery, grazing permittee  
Southern Ute Tribe  
Ute Tribe of the Uintah and Ouray Bands  
Ute Mountain Ute Tribe

**INTERDISCIPLINARY REVIEW:**

<i>Name</i>	<i>Title</i>	<i>Responsibility</i>
Isaac Pittman	Rangeland Management Specialist	Rangeland Management, NEPA Lead
Michael Kinser	Rangeland Management Specialist	Wetlands and Riparian Zones
Kay Hopkins	Outdoor Recreation Planner	ACEC, WSR, Wilderness, VRM
Cheryl Harrison	Archaeologist	Cultural Resources and Native American Concerns
Desa Ausmus	Wildlife Biologist	Migratory Birds, T&E, Terrestrial Wildlife
Carla DeYoung	Ecologist	Vegetation, T/E/S Plants, Land Health Stds
Jeff O'Connell	Hydrologist/Geologist	Soil, Air, Water, Geology
Dereck Wilson	Rangeland Management Specialist	Invasive, Non-Native Species
Tom Fresques	Fisheries Biologist	Wildlife Aquatic, T&E Fish

SIGNATURE OF PREPARER:



DATE SIGNED:

3/18/2008

ATTACHMENT: Allotment Map

**REFERENCES:**

Bureau of Land Management (BLM)

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