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BUREAU OF LAND MANAGEMENT
Colorado River Valley Field Office
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ENVIRONMENTAL ASSESSMENT

1. Introduction

NUMBER: **DOI-BLM-CO-040-2013-0036 EA**

CASEFILE NUMBER: 0504611

PROJECT NAME: Re-issue grazing permits on the Red Mountain, Hogback Common, and Pretti-Roberts allotments.

LOCATION: Garfield County, North of Silt, CO

LEGAL DESCRIPTIONS: T5S R91W several sections, See attached map

APPLICANT: Grazing Permittee

BACKGROUND:

Two grazing permits, one on the Pretti-Roberts allotment (Authorization Number 0504595) and one on the Hogback Common, Red Mountain, Ryden, and Kissel allotments (Authorization Number 0504611) were transferred to a new operator last year. Due to the timing of the transfer the permits were re-issued with no changes. The new permittee has applied to change the type of use occurring on these allotments to make a more flexible schedule where cattle can be rotated from one allotment to the next.

PURPOSE AND NEED FOR ACTION:

This permit is 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 permit/lease 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 goal and objective of the Resource Management Plan, (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.

Decision to be made: Whether or not to re-issue a grazing permit.

SCOPING AND PUBLIC INVOLVEMENT AND ISSUES:

This action was scoped internally with the NEPA Interdisciplinary Team on (February 6, 2013). Issues raised during the internal scoping are itemized in table 3-1 and analyzed in Section 3 Affected Environment and Environmental Effects.

The Colorado River Valley Field Office Internet NEPA Register lists grazing NEPA documents that have been initiated. They are generally posted approximately one month prior to the estimated completion date. No public comments specific to this proposed action have been received.

2. Proposed Action and Alternatives

DESCRIPTION OF PROPOSED ACTION

The Proposed Action is to re-issue two term grazing permits with changes. The current grazing schedules are not conducive to the current permittee’s operational needs. These allotments are proposed to be used in a rotational grazing plan moving from one allotment to the next and onto the Forest Service in early summer. This action includes combining 3 allotments (Red Mountain, Ryden, and Kissel) into one allotment (Red Mountain) with three pastures. Also, the authorized livestock numbers and use period on the two permits would reflect the maximum numbers and the maximum use period and actual use would occur within those numbers and dates and may be modified annually by the permittee. This “Adaptive Use” will allow the maximum amount of flexibility to the permittee and will identify the flexibility that would be allowable under these permits. The permittee must stay within his authorized AUMs, livestock numbers, and dates. These permits 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 proposed action is in accordance with 43 CFR 4130.2. Scheduled grazing use, grazing preference, and terms and conditions for the permits including current use and proposed changes are summarized below.

Table 2-1 Current Mandatory Terms and Conditions/Scheduled Grazing Use:

Authorization Number	Allotment Name & No.	Livestock No. & kind	Period of use	Percent Public Land	AUMs
0504595	Pretti-Roberts #18029	150 Cattle	5/16 – 6/15	100	153
0504611	Ryden #18024	75 Cattle	5/01 – 6/15	78	88
	Red Mountain #18028	82 Cattle	5/26 – 6/10	100	43
	Kissel #18003	70 Cattle	6/01 – 6/19	100	44
	Hogback Common #18026	63 Cattle	5/15 – 6/04	100	43

Table 2-1 Proposed Mandatory Terms and Conditions/Scheduled Grazing Use:

Authorization Number	Allotment Name & No.	Livestock No. & kind	Period of use	Percent Public Land	AUMs
0504595	Pretti-Roberts #18029	150 Cattle	4/15 – 6/01	100	150
0504611	Hogback Common #18026	150 Cattle	5/01 – 6/15	100	43
	Red Mountain #18028	150 Cattle	5/10 – 7/15	78	176

Table 2-2 Grazing Preference AUMs:

Allotment Name & No.	Active	Suspended	Total
Pretti-Roberts #18029	150	20	170
Hogback Common #18026	45	0	45
Red Mountain #18028	176	162	338

The following other terms and conditions will be included on the permit:

Adaptive management will be employed on these allotments. The Mandatory Terms and Conditions on this grazing permit show the maximum allowable flexibility. The permittee may use the allotment when the range is ready but not earlier than the beginning dates described in the permit. The range will be considered ready when there is a minimum of 4 inches of new growth on grasses. AUM usage may not exceed active preference. An actual use statement shall be submitted no later than Aug 1 annually. Billing will be based on actual use.

The Red Mountain allotment is divided into three pastures. Use must be rotated between all pastures during the grazing season. Once the maximum allowable use is met, livestock must be moved to the next scheduled pasture.

The maximum allowable use on the allotment is considered to be 50% of the current year's growth on key grass species. Key grass species are native perennial grasses.

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 turn out. Maintenance activities shall be restricted to the footprint (previously disturbed area) of the project as it existed when it was initially constructed. The Bureau of Land Management shall be given 48 hours advanced notice of any maintenance work that will involve heavy equipment. Disturbed areas will be reseeded with a certified weed-free seed mixture of native species adapted to the site.

The permittee and all persons associated with grazing operations must be informed that any person who injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public land is subject to arrest and penalty of law. 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 further notified in writing to proceed by the authorized officer.

Other Authorized Use:

There is one other permit authorizing the following use in relation to the allotments in this action.

Allotment Name and No.	Livestock No. & Kind	Period of Use	Percent Public Land	AUMs
Pretti-Roberts #18029	800 Sheep	1/1 – 2/15	100	242
Hogback Common #18026	750 Sheep 550 Sheep	5/16 – 6/19 12/15 – 1/20	100 100	173 134

NO GRAZING ALTERNATIVE

Under this alternative the grazing permits described in the Proposed Action would be cancelled. As a result, no cattle grazing would be authorized on the Hogback Common, Red Mountain, and Pretti-Roberts allotments. This alternative would initiate the process in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on these allotments and would amend the resource management plan. The sheep permit issued on the Pretti Roberts and Hogback Common allotment would not be affected by this action.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

The “No Action” alternative has been eliminated from further consideration. This alternative would involve continuing the current management which would not conform to Colorado State Office and Washington Office guidance.

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; amended in September 2002 – Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance; amended in Sept 2009 – Record of Decision for the Approval of Portions of the Roan Plateau Resource Management Plan Amendment; amended in March 2009 - Record of Decision for the Designation of Areas of Critical Environmental Concern for the Roan Plateau Resource Management Plan; and amended in October 2012 - Approved Resource Management Plan Amendments/ Record of Decision (ROD) for Solar Energy Development in Six Southwestern States.

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.”

RELATIONSHIP TO STATUTES, REGULATIONS, OTHER PLANS

- Taylor Grazing Act of 1934 as amended;
- Federal Land Policy and Management Act of 1976;
- Public Rangelands Improvement Act of 1978;
- Title 43 of the Code of Federal Regulations Subpart 4100 – Grazing Administration;
- Noxious Weed Act of 1974;
- Endangered Species Act of 1973;
- National Environmental Policy Act of 1969;
- Migratory Bird Treaty Act of 1918;
- National Historic Preservation Act (16 USC 470f);
- Archeological Resources Protection Act;
- Native American Graves Protection and Repatriation Act;
- Indian Sacred Sites – EO 13007; and
- Consultation and Coordination with Indian Tribal Governments – EO 13175
- Colorado Public Health Standards and Livestock Grazing Management Guidelines - March 1997

STANDARDS FOR PUBLIC LAND HEALTH

In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. The five standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands.

The allotments involved in the proposed action are located within the Elk Creek Land Health Assessment Area which was assessed in 2007. At the time of the assessment, the Pretti-Roberts and Hogback Common allotments were not meeting Standard 3 for healthy plant communities due to the abundance of cheatgrass and corresponding lack of perennial grasses and forbs, as well as old and decadent sagebrush. Although the ID team could not positively determine whether the existing livestock grazing was a significant factor in the failure to meet the standard; it was decided that existing livestock grazing management on the Hogback Common allotment did not conform to the guidelines for Livestock Grazing Management. The Kissel, Red Mountain, and Ryden allotments were meeting all the standards; however, concerns were identified regarding dense, old and decadent sagebrush stands, encroachment of pinyon-juniper trees into sagebrush communities, and in some areas, invasion by cheatgrass.

The impact analysis addresses whether the proposed action or any alternatives being analyzed would result in impacts that would maintain, improve, or deteriorate land health conditions for

each of the five standards. These analyses are located in the program-specific analysis in this document.

3. Affected Environment & Environmental Effects

DIRECT AND INDIRECT EFFECTS, MITIGATION MEASURES

This section provides a description of the human and natural environmental resources that could be affected by the proposed action and alternatives. In addition, the section presents comparative analyses of the direct and indirect effects 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 environmental elements. Not all programs, resources or uses are present in the area, or if they are present, may not be affected by the proposed action and alternatives (Table 3-1). Only those elements that are present and potentially affected are described and brought forth for detailed analysis.

<i>Table 3-1. Programs, Resources, and Uses (Including Supplemental Authorities)</i>	<i>Potentially Affected?</i>	
	Yes	No
Access and Transportation		X
Air Quality		X
Areas of Critical Environmental Concern		X
Cadastral Survey		X
Cultural Resources	X	
Native American Religious Concerns	X	
Environmental Justice		X
Farmlands, Prime or Unique		X
Fire/Fuels Management		X
Floodplains		X
Forests		X
Geology and Minerals		X
Law Enforcement		X
Livestock Grazing Management	X	
Noise		X
Paleontology		X
Plants: Invasive, Non-native Species (Noxious Weeds)	X	
Plants: Sensitive, Threatened, or Endangered	X	
Plants: Vegetation	X	
Realty Authorizations		X
Recreation		X
Social and/or Economics	X	

Soils	X	
Visual Resources		X
Wastes, Hazardous or Solid		X
Water Quality, Surface and Ground	X	
Water Rights		X
Wetlands and Riparian Zones		X
Wild and Scenic Rivers		X
Wilderness/WSAs/Wilderness Characteristics		X
Wildlife: Aquatic / Fisheries	X	
Wildlife: Migratory Birds	X	
Wildlife: Sensitive, Threatened, and Endangered Species	X	
Wildlife: Terrestrial	X	

Cultural Resources

Affected Environment

Grazing authorization renewals are undertakings under Section 106 of the National Historic Preservation Act. During Section 106 review, a cultural resource assessment (CRVFO#1013-18) was completed for the Pretti-Roberts, Hogback Common, and Red Mountain (combining Red Mountain, Ryden & Kissel allotments) allotments on February 25, 2013 by Erin Leifeld, Colorado River Valley 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 available at the Colorado River Valley Field Office archaeology files.

Data developed here was taken from the cultural program project report files, site report files, and base maps filed at the Colorado River Valley Field Office as well as information from General Land Office (GLO) maps, BLM land patent records, and the State Historic Preservation Office (SHPO) site records, report records, and GIS data.

The table below is based on the allotment specific analysis for the three allotments in this EA. The table shows known cultural resources, the potential of Historic Properties, and Management recommendations.

Table 3-2. Cultural Resources Assessment Summary						
Allotment Name and Number	Acres Inventoried at a Class III level	Acres NOT Inventoried at a Class III Level	Percent Allotment Inventoried at a 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)
Pretti-Roberts #18029	557	1280	30.3%	22	Yes	Two sites (5GF.4486 & 5GF4490) are recommended to be monitored and no further inventory is required.
Hogback Commons #18026	349	1617	17.7%	3	No	No sites need to be monitored and no further inventory is required.
Red Mountain #18028	346	2897.3	10.6%	6	No	One site (5GF.315) is recommended to be monitored and no further inventory is required.

The Pretti-Roberts Allotment #18029 has had five previous cultural resource inventories (CRVFO# 1012, 1071, 1111-20, 1112-18, 15404-2) conducted totaling 557 acres inventoried. Twenty-two cultural resources have been identified in the allotment and include eleven prehistoric isolated finds and one historic isolated finds which are not eligible for the National Register of Historic Places (NRHP). Additionally, four prehistoric sites (5GF.4487, 5GF.3386, 5GF.311, and 5GF344) four historic sites (5GF3381, 5GF.3632, 5GF.3405.1 and 5GF.4489) are not eligible for the NRHP. Finally, two prehistoric sites (5GF4490 and 5GF.4486) are potentially eligible for the NRHP. Looking at the GLOs from 1883 there are no historic features within this allotment.

Twelve cultural resource inventories (CRVFO# 145, 1005, 1022, 1086, 1092, 1003-26, 1006-4, 1105-12, 1112-18, 2259-1A, 5497.19, 15404-2) have been previously conducted within the Hogback Commons Allotment #18026 totaling 349 acres. Three cultural resources were documented during these inventories. One prehistoric open lithic site (5GF.3114) and one prehistoric isolated find (5GF.3651) are not eligible for the NRHP. Additionally, one historic site (5GF.1164) is potentially eligible for the NRHP.

The Red Mountain Allotment #18028 has had eleven cultural resource inventories (CRVFO#69, 145, 339, 591, 1005, 1095, 1407, 1199-6, 2295-1A, 5495-2 and SHPO#GF.R.R4) previously conducted totaling 346 acres inventoried. A total of six cultural resource have been identified with the allotment and include two prehistoric isolated finds, one prehistoric site (5GF.315) and two historic sites (5GF.2613 and 5GF.428) all of which are not eligible for the NRHP. One additional prehistoric site (5GF.313) is potentially eligible for the NRHP.

Looking at the GLOs from 1883 the only historic features in the area of the Hogback Commons and Red Mountain allotments are the Elk Creek Road and Middle Elk Creek Road. These roads are both located on private land and therefore no segments of these roads occur on public land.

Environmental Effects

Proposed Action

The direct impacts that occur where livestock concentrate, during normal livestock grazing activity, can include trampling, chiseling, artifact breakage, and churning of site soils, cultural features, and cultural artifacts. Impacts from livestock standing, leaning, and rubbing against historic structures, above-ground cultural features, and rock art can also have direct impacts to cultural resources. Indirect impacts include soil erosion and gullying, which can lead to increased ground visibility which has the potential to increase unlawful collection and vandalism. Continued livestock use in these concentration areas has the potential to cause substantial ground disturbance and in turn, irreversible adverse effects to historic properties.

Changes in numbers of livestock and timing proposed in this alternative will not change ground disturbing impacts to cultural resource because the total AUMs are almost the same. It may be beneficial to cultural resources because the rotation of livestock through the pastures can help reduce surface disturbance through hoof action or livestock concentration. Additionally, the use of adaptive management will have little change on cultural resource impacts. The use of this management technique might in fact be beneficial to lessen ground disturbance because it requires four inches of new growth on grasses and therefore livestock will not be grazing when soils are more exposed or when the area is more susceptible to erosion.

No additional inventory is recommended within the three allotments during the term of this permit. Three cultural resources (5GF.315, 5GF.4486 & 5GF4490) are recommended to be revisited and monitored for adverse impacts.

No Grazing Alternative

Under this alternative, direct and indirect impacts to cultural resources from grazing would be reduced based on the absence of livestock and no related surface disturbing activities.

Mitigation

New range improvements, maintenance of existing range improvements, or additional feeding areas may require cultural resource inventories, monitoring, and/or data recovery.

This allotment may contain undiscovered 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. If the BLM determines that grazing activities will adversely impact the properties, mitigation will be identified and implemented in consultation with the Colorado SHPO. The BLM may also 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.

Native American Religious Concerns

Affected Environment

American Indian religious concerns are legislatively considered under the American Indian Religious Freedom Act of 1978 (PL 95-341), the Native American Graves Environmental Assessment Protection and Repatriation Act of 1990 (PL 101-601), and Executive Order 13007

(1996; Indian Sacred Sites). These require, in concert with other provisions such as those found in the NHPA and Archaeological Resources Protection Act (ARPA), that the federal government carefully and proactively take into consideration traditional and religious Native American culture and life. This ensures, to the degree possible, that access to sacred sites, the treatment of human remains, the possession of sacred items, the conduct of traditional religious practices, and the preservation of important cultural properties are considered and not unduly infringed upon. In some cases, these concerns are directly related to “historic properties” and “archaeological resources”. In other cases, elements of the landscape without archaeological or other human material remains may be involved. Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation.

The Ute have a generalized concept of spiritual significance that is not easily transferred to Euro-American models or definitions. The BLM recognizes that the Ute have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. The cultural resource evaluation of these allotments describing known cultural resources and their condition was sent to the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and the Uinta and Ouray Agency Ute Indian Tribe. The letter, sent on March 7, 2013, requested the tribes to identify issues and areas of concern within the allotments. Responses supported additional survey, specifically in areas identified for livestock concentration within allotments which have not been previously inventoried for cultural resources. Additionally, they are interested in the significant cultural resources and agree with monitoring them and if mitigation is required, consultation would occur to best determine appropriate action.

Environmental Effects

Proposed Action

Tribal Representatives have consulted with the CRVFO on this project and indicated their support of additional inventory, specifically in allotments not previously inventoried. They were also interested in continued monitoring of the significant sites located within the allotments. In addition to the stipulations for the protection of Cultural Resources, any site-specific Native American mitigation measures suggested during previous notification/consultation would be considered during the implementation of the Proposed Action.

No Grazing Alternative

Under this alternative, direct and indirect impacts to cultural resources from grazing would be reduced based on the absence of livestock and no related surface disturbing activities. Therefore, areas of concern to Native American tribes would not be affected.

Mitigation

Following the *Mitigation Measures* in the Cultural Resources section will help to ensure direct and indirect impacts are not occurring in areas where concern is unknown. If new information is provided by Native Americans during any future consultation, additional or edited terms and conditions for mitigation may have to be negotiated or enforced to protect resource values.

Livestock Grazing Management

Affected Environment

The new Red Mountain allotment, consisting of 4,158 acres of BLM and intermingled private

property, is located in the Elk Creek drainage north of Silt, CO; Township 5 South Range 91 West, sections 2, 3, 10, 13-15, 23, 24 and Township 4 South Range 91 West, sections 34 and 35. The allotment ranges in elevation from 6,000 to 8,000 feet and averages approximately 12 inches of precipitation a year. Common vegetation types include pinyon, juniper, sagebrush, and Gambel oak communities. There are no known water developments on public land within the allotment.

The Hogback Common allotment, consisting of 1,977 acres of BLM, is located just south of the Red Mountain allotment. The allotment characteristics are similar to the Red Mountain allotment. The Hogback Common allotment is a north facing aspect of the Grand Hogback and is also permitted for sheep use in the spring and winter.

The Pretti-Roberts allotment, consisting of 1,838 acres, is located just south of the Hogback Common allotment. The allotment characteristics are similar to the Red Mountain allotment although the slope aspect is south which leads to a slightly drier spring. It is also permitted for sheep use in the winter.

Environmental Effects

Proposed Action

Under this action grazing would be modified from previous levels. The new permittee plans to use these three allotments in a spring rotation prior to going onto the Forest Service for the summer. Flexibility is incorporated into the grazing permit to allow the permittee to modify operations as needed in response to annual fluctuations in weather conditions. Grazing utilization would be monitored and livestock would be moved when utilization limits are reached. Impacts from grazing would be minimal and would be focused around water sources.

No Grazing Alternative

Under this alternative these grazing permits would not be renewed. Cancelling grazing use on these allotments may result in economic harm to the permittee. This alternative would initiate the process in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on these allotments and devote the land to some other purpose and would result in amendments to the resource management plan.

Plants: Invasive Non-Native Species (Noxious Weeds)

Affected Environment

A recent landscape wide inventory has not been completed on the Pretti-Roberts, Hogback Common, and Red Mountain Allotments; however, some infestations of noxious weeds such as Downy Brome, Russian Knapweed, and Jointed Goatgrass have been documented on these allotments. Given the nature of noxious weed infestations it can be assumed other noxious weeds may be found in areas of the three allotments.

Environmental Effects

Proposed Action

Weeds generally germinate and become established in areas of surface disturbing activities. Livestock grazing can contribute to the establishment and expansion of noxious weeds through various mechanisms. Improperly managed grazing, such as overgrazing, 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 animal's coats. This effect is minimal compared to other weed seed dispersal vectors such as recreation and ground disturbing activities. Conversely, properly managed livestock grazing maintains the vigor and health of native plant species which inhibits the spread of 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. Noxious and invasive plant species are not expected to radically increase as a result of the continuation of livestock grazing practices. Most infestations will be isolated to watering facilities, salting areas, and other areas where livestock concentrate.

No Grazing Alternative

Under this alternative, no livestock grazing would occur on these allotments and there would be no direct or indirect impacts to noxious weeds from livestock use. Grazing by wildlife may continue to create localized disturbances that would enable weed expansion. Wildlife and recreation would continue to be vectors for the transportation and spread of noxious weed seeds.

Plants: Sensitive, Threatened, and Endangered

Affected Environment

The proposed action would occur in Garfield County, Colorado. According to the latest species list from the USFWS, four Federally listed plant species may occur within or be impacted by actions occurring in Garfield County. In addition, there are six BLM sensitive plant species with occupied or potential habitat in Garfield County (BLM 2009). Table 3-3 lists these species and summarizes information on their habitat descriptions and potential for occurrence in the project vicinity based on known geographic range and habitats present.

Table 3-3. Threatened, Endangered, and BLM Sensitive Plants

Federally Listed, Proposed or Candidate Plant Species		
<i>Species and Status</i>	<i>Habitat Description</i>	<i>Potential For Occurrence</i>
Colorado hookless cactus (<i>Sclerocactus glaucus</i>) – Threatened	Rocky hills, mesa slopes, and alluvial benches in salt desert shrub communities; often with well-formed microbial crusts; can occur in dense cheatgrass. 4,500 to 6,600 feet	No: No rocky, salt desert shrub habitat is present.
DeBeque phacelia (<i>Phacelia submutica</i>) – Threatened	Sparsely vegetated, expansive clay soils derived from the Atwell Gulch and Shire Members of the Wasatch Formation; 4,700 to 6,200 feet. In salt desert shrubland or scattered juniper woodland	No: No exposures of the Wasatch formation are present.
Parachute penstemon (<i>Penstemon debilis</i>) -- Threatened	Steep, sparsely vegetated, white shale talus of the Parachute Creek Member of the Green River Formation; 8,000 to 9,200 feet	No: No exposures of the Parachute Creek Member of the Green River Formation are present.
Ute ladies'-tresses orchid (<i>Spiranthes diluvialis</i>) – Threatened	Subirrigated alluvial soils along streams, lakes or wetland areas; 4,500 to 7,000 feet	No: None of the public lands within these allotments contain subirrigated riparian habitat capable of supporting Ute ladies'-tresses

BLM Sensitive Plant Species		
Cathedral Bluffs meadowrue (<i>Thalictrum heliophilum</i>)	Endemic on sparsely vegetated, dry shale slopes of the Green River Formation between 6,200 and 8,800 feet in elevation.	No: No Green River Formation shale present in these allotments
DeBeque milkvetch (<i>Astragalus debequaeus</i>)	Found on varicolored, fine-textured soils of the Wasatch Formation in the vicinity of DeBeque and Rulison, Colorado. Elevations of known populations are between 5,100 and 6,400 feet.	No: No exposures of the Wasatch Formation are present
Harrington's penstemon (<i>Penstemon harringtonii</i>)	Wyoming or mountain sagebrush or mixed mountain shrub communities on rocky loam or rocky clay loam soils of basaltic origin between 6,200 to 10,000 feet.	No: No rocky loam or rocky clay loam soils of basaltic parent material present.
Naturita milkvetch (<i>Astragalus naturitensis</i>)	Sandstone mesas, ledges, crevices, and slopes in pinyon-juniper woodlands between 5,000 and 7,000 feet. In shallow soils over exposed bedrock.	No: No sandstone rimrock or ledges present in project area
Piceance bladderpod (<i>Lesquerella parviflora</i>)	A western Colorado endemic on shale outcrops of the Green River Formation, on ledges and slopes of canyons in open areas; 6,200 to 8,600 feet.	No: No exposed Green River Formation present
Roan Cliffs blazing star (<i>Mentzelia rhizomata</i>)	On steep talus slopes of the Green River Formation from 5,800 to 9,000 feet.	No: No Green River Formation shale present in these allotments.

Environmental Effects

Proposed Action

Due to the absence of any known occurrences or potential habitat for any listed plant species, the proposed action would have “No Effect” on any listed plant populations or habitat.

An occurrence of Roan Cliffs blazing star was documented in the alluvial soils along Main Elk Creek in 1981. Research of the herbarium specimen collected at this site determined that the specimen was actually a different species of blazing star. The proposed action would have no impacts on any BLM sensitive plants or their habitats.

No Grazing Alternative

Under this alternative, no livestock grazing would occur on these allotments. There would be no direct or indirect impacts to special status plants from livestock use.

Land Health Standards

Land Health Standard 4 for special status plants does not apply to these allotments since no occurrences and no potential habitat have been documented there.

Plants: Vegetation

Affected Environment

Pretti-Roberts

The Pretti-Roberts allotment lies on the south side of the Grand Hogback, north of Silt. Due to the south-facing aspect, this allotment is relatively hot and dry. There is no water on the

allotment other than a ditch that traverses a portion of the allotment. On most of the allotment, vegetation consists of a dense stand of Wyoming big sagebrush with some cheatgrass and a sparse understory of native perennial grasses such as Sandberg bluegrass, Bottlebrush squirreltail, and Indian ricegrass. In the concentrated OHV use areas on the east side, vegetation is dominated by cheatgrass. A portion of the allotment which burned in the mid-2000's and was reseeded to perennial grasses, now supports a mixture of cheatgrass and cool-season perennial grasses such as various wheatgrasses and Indian ricegrass.

Hogback Common

The Hogback Common allotment lies directly opposite the Pretti-Roberts allotment, but on the north side of the Grand Hogback. Climatic conditions are slightly cooler and moister, supporting a more productive and diverse vegetative community. Vegetation in the steep, upper portions of the allotment consist of dense mesic mountain shrubs, such as serviceberry, mountain mahogany, and Gambel oak with a scattered overstory of Pinyon pine and Utah juniper trees. Vegetation on the lower portions of the allotment where the slopes are less steep consists of dense big sagebrush with an herbaceous understory on the terraces and Pinyon pine and Utah juniper along the ephemeral drainages. Cool-season perennial grasses include prairie junegrass, Indian ricegrass and Sandberg bluegrass. However, cheatgrass has replaced many cool-season grasses and forbs. Several vegetative treatments, such as targeted winter browsing of sagebrush and brushbeating were conducted in the last five years. These treatments have successfully reduced the canopy of sagebrush, however, the brushbeating also stimulated growth of cheatgrass which now dominates portions of the allotment.

Red Mountain

As part of this proposed action, the former Red Mountain, Ryden and Kissel allotments would be combined into one allotment with three pastures.

The Red Mountain pasture straddles a steep mountain between Main Elk and East Elk Creek drainages and is surrounded by private lands. The steep, rocky slopes that dominate the allotment support Utah juniper and Pinyon pine with a sparse herbaceous understory. On the top of the mountain is a small area of relatively gentle slopes dominated by big sagebrush, mountain mahogany, and antelope bitterbrush with an understory of native, perennial grasses such as needle-and-thread and Indian ricegrass. A minor amount of cheatgrass is present within an old burn and other disturbed areas.

The Ryden and Kissel pastures consist of east-facing slopes on the west side of Main Elk Creek. The Kissel pasture is steeper than Ryden, and supports less forage. The Kissel pasture contains canyons and ridges with Pinyon and juniper on the south slopes and Gambel oak and mixed mountain shrubs on the north slopes. Ryden pasture contains steep slopes of Pinyon and juniper but also has a number of terraces with a dense canopy of sagebrush and an understory of cool-season perennial bunchgrasses and cheatgrass. Pinyon-juniper encroachment into sagebrush parks is evident in all the allotments in this proposed action.

Environmental Effects

Proposed Action

Livestock grazing results in the direct removal of vegetation. Properly managed livestock grazing can improve plant vigor by removing dried stems and seedheads thereby improving photosynthetic activity of live plant material. If the timing or intensity of grazing does not allow adequate recovery and regrowth periods between grazing events, grazing may: 1) reduce plant vigor or cause plant mortality by reducing root reserves, 2) change the species' composition in favor of shrubs and less palatable grasses and forbs, and 3) can create surface disturbance and bare ground that serves as a niche for the invasion of noxious weeds. Grazing that does not exceed roughly 40-50% of the current year's growth and does not repeatedly defoliate the same plants or species will generally maintain plant health.

Adaptive management would be employed on these allotments. The proposed action provides flexibility to the permittee to begin grazing the Pretti-Roberts allotment as early as April 15th provided there is a minimum of 4 inches of new growth on grasses. Cattle forage on the Pretti-Roberts allotment is currently dominated by cheatgrass, an annual grass and noxious weed, which often begins growth by the middle or end of March. Cool-season perennial grasses are also present on the allotment in minor amounts. These cool-season grasses also begin growth early in the spring, but usually slightly later than cheatgrass. Grazing the allotment early in the spring is intended to focus grazing use on cheatgrass which is palatable early in the season before it forms seed, thereby inhibiting its growth and potentially preventing it from setting seed. This management strategy is designed to reduce the dominance of cheatgrass and provide a competitive advantage to the cool-season perennial grasses.

Hogback Common also has a large component of cheatgrass. Since the Hogback Common is a north-facing allotment, the snow melts later and vegetation begins to grow later in the spring. The timeframe for using this allotment (between May 1 and June 15) is also intended to focus grazing on cheatgrass at the time of year when it is most palatable and before it has the opportunity to set seed.

No Grazing Alternative

Under this alternative, no livestock grazing would occur on these allotments and there would be no direct or indirect impacts to vegetation from livestock use. Some trampling or removal of vegetation, particularly browsing of shrubs in the winter and grazing of grasses in the spring, may still occur from wildlife grazing.

Mitigation

If monitoring determines that cattle are targeting the cool-season perennial grasses rather than cheatgrass or if cool-season grasses begin to recover and become the dominant forage on these allotments, the terms and conditions of the permit may be changed to enable the perennial grasses to grow and set seed during the growing season.

Land Health Standards

The allotments involved in the proposed action are located within the Elk Creek Land Health Assessment Area which was assessed in 2007. At the time of the assessment, the Pretti-Roberts and Hogback Common allotments were not meeting Standard 3 for healthy plant communities due to the abundance of cheatgrass and corresponding lack of perennial grasses and forbs, as well as old and decadent sagebrush and some pinyon-juniper encroachment. The Kissel, Red

Mountain, and Ryden allotments were meeting all the standards; however, concerns were identified regarding dense, old and decadent sagebrush stands, encroachment of pinyon-juniper trees into sagebrush communities, and in some areas, invasion by cheatgrass. Given the analysis described above, the proposed action would not likely further degrade land health conditions relative to Standard 3. With the proposed adaptive management, land health conditions may begin to improve and move towards meeting Standard 3, however, additional vegetation treatments, such as herbicide control of cheatgrass, mechanical thinning of sagebrush and removal of pinyon-juniper may be needed to achieve Standard 3.

Socio-Economics

Affected Environment

The majority of CRVFO grazing permits are issued to individuals and businesses within the following counties of Colorado. The median household income within those counties is identified in the following table.

Table 3-4

Local Counties	Median Household Income (2010 US Census)
Garfield	\$62,716
Pitkin	\$69,352
Eagle	\$74,220
Routt	\$64,892

Local communities throughout rural areas in the western United States are often integrally tied to ranching and agriculture. Livestock grazing has been a significant part of the Colorado River valley and surrounding area for more than 100 years. Cattle companies began moving into western Colorado in the early 1870s, using the open range as winter feeding grounds for their herds (Church et al. 2007: 113). By the late 1880s, a more sedentary life of livestock raising became prevalent as ranchers established access to leased lands and irrigated pastures and were able to establish more permanent ranches (Church et al. 2007: 113-114). Many of these ranches, cattle companies, and homesteading families retain their long-standing social and economic ties to the area.

Benefits that local ranches and livestock companies bring to the surrounding communities include jobs, local business revenue, and locally produced meat (Huntsinger and Hopkinson 1996: 167-168). Additionally, reserving tracts of land for livestock grazing can preserve large expanses of contiguous property which are not open to development and segmentation. In combination, these large tracts of ranch land and public land can be beneficial to wildlife, recreation, watersheds, and aesthetics (Huntsinger and Hopkinson 1996: 168). In the West, “49.6% of all public land ranchers” are greatly dependent on ranching as a primary source of their income (Gentner and Tanak 2002: 11). Maintaining historic ties to the land through livestock grazing also preserves traditional family and community land uses. Studies show that ranchers are not only in the livestock business to make a profit, but place great value in the quality of life that comes with the ranching lifestyle (Bartlett et al. 2002).

Challenges to livestock grazing can include financial hardship, over-utilization, limitations from land development, and conflicts with other land users. Encroachment by land developers can raise property taxes and values which can create economic incentive for ranchers to fragment or sell off their lands (Huntsinger and Hopkinson 1996: 167). Livestock price fluctuations can increase the challenge for ranchers to maintain a profit (Smith and Martin 1972: 224). Livestock owners who use public lands feel pressures from other land users, such as recreationists or oil and gas development, for access and use of land. For example, tension can occur when livestock are startled by mountain bikers or pasture gates are left open. Some public land users, such as hunters, can be affected by poor grazing practices and the resulting impacts to local wildlife and environmental quality. However, the multiple use mission of the Bureau of Land Management requires that the traditional land uses, such as grazing, are managed in a way that accommodates other public land users.

Social and economic impacts of ranching and agriculture can bring both benefits and challenges to the local community. Sustainably managed grazing supports a way of life that has been established since the early twentieth century and can be an opportunity to preserve community tradition, identity, and land use patterns while accommodating other land uses and environmental protections.

Environmental Effects

Proposed Action

Under this alternative grazing would continue at past levels on the allotments. The ranching livelihood, local economic benefit, and cultural settings of the area would continue to be supported and no net increase or loss to the permittee or county would be expected.

No Grazing Alternative

This alternative disproportionately impacts ranches with greater forage needs, higher public forage dependency, and no cost effective forage substitutes. Public forage losses could be replaced with other private leases or hay. Leasing private land can be the least-cost alternative but in many areas is unrealistic due to lack of available agricultural land to lease. Buying hay to compensate for lost forage is a far more expensive option than reducing livestock numbers. (Rowe, 2001) This alternative may also require fencing along the private-BLM boundary to prevent unauthorized use on public lands. These additional costs may result in the conversion of traditional agricultural property to some other use.

The desired social outcomes of the Community Assessment Report identified the importance of rural or western lifestyles and livelihoods in this area. This alternative would hinder the ability of local ranches to maintain economies, but even more importantly, to maintain the rural/western character integral to the larger community identity. (BLM 2007b)

Soils

Affected Environment

According to the *Soil Survey of Rifle Area, Colorado: Parts of Garfield and Mesa Counties* (NRCS 1985), the Hogback Common allotment contains 10 different soil map units that can be

identified by the numerical code assigned by the soil survey (7, 9, 24, 31, 56, 58, 66, 67, 69, 70). The Red Mountain allotment contains two soil map units (2, 67), while the Ryden (1, 2, 11, 39, 66, 67) and Kissel allotments (7, 11, 22, 39, 66, 67) each contain six soil map units. The Pretti-Roberts allotment contains five soil map units (21, 41, 56, 66, 67). These soil map units are scattered throughout the five allotments and many of them have been identified as having severe erosion hazards. In addition, large portions of these 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 allotments (NRCS 2011):

- Almy Variant loam (1) – This deep, well-drained soil is found on mountainsides at elevations ranging from 6,500 to 8,000 feet and on slopes of 25 to 65 percent. Parent material for this soil is sandstone and shale residuum. Surface runoff for the Almy Variant loam is medium and the erosion hazard is moderate. Primary uses for this soil include wildlife habitat and limited grazing.
- Arle-Ansari-Rock outcrop complex (2) – This complex is found on mountainsides and alluvial fans at elevations ranging from 5,500 to 7,500 feet and on slopes of 12 to 65 percent. The soils are derived from red-bed shale and sandstone while the Rock outcrop is primarily red sandstone. Approximately 45 percent of the complex is composed of the Arle soil, 35 percent the Ansari soil, and 20 percent Rock outcrop. The Arle soil is moderately deep, well drained, and has medium surface runoff and severe erosion hazard. The Ansari soil is shallow, well drained, and has rapid surface runoff and severe erosion hazard. This complex is used primarily for wildlife habitat and grazing.
- 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.
- Begay sandy loam (11) – 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 includes red-bed sandstone and shale. Surface runoff for Begay sandy loam is moderate and the erosion hazard is severe. Primary uses for this soil include grazing, irrigated pasture, and hay production.
- 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.
- Dateman gravelly loam (22) – This moderately deep, well-drained soil is found on mountainsides at elevations ranging from 7,000 to 9,500 feet and on slopes of 30 to 50 percent. This soil is derived primarily from sandstone and limestone rocks. Surface runoff for this soil is medium and the erosion hazard is classified as moderate. Primary uses for this soil include wildlife habitat and grazing.
- Dollard-Rock outcrop, shale, complex (24) – This complex consists of shale outcrops and shale derived soils that are found on hills and mountainsides at elevations ranging from 6,000 to 7,500 feet

and on slopes of 25 to 65 percent. Approximately 60 percent of the complex is the Dollard soil and 20 percent is shale outcrop. The Dollard soil is moderately deep, well drained and has rapid surface runoff with severe erosion hazard. Surface runoff for the Rock outcrop is rapid and the erosion hazard is very severe. This complex is primarily used for limited grazing and wildlife habitat.

- Heldt clay loam (31) – This deep, well-drained soil is found on alluvial fans and sides of valleys at elevations ranging from 5,000 to 6,000 feet and on slopes of 12 to 25 percent. Parent material for this soil is shale and sandstone. Erosion hazard for this soil is moderate and surface runoff is medium. Primary uses for this soil include grazing and 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.
- Kim loam (41) – This deep, well drained moderately sloping soil is found on alluvial fans and benches at elevations ranging from 5,000 to 6,000 feet and on slopes of 6 to 12 percent. This soil is derived from sandstone and shale alluvium. Surface runoff is slow and the erosion hazard is moderate. Primary uses for this soil include crops, hay, and pasture.
- Potts loam (56) – This deep, well-drained soil is found on mesas, benches, and the sides of valleys at elevations ranging from 5,000 to 7,000 feet and on slopes of 6 to 12 percent. Parent material for this soil includes sandstone, shale, and basalt. Surface runoff for this soil is medium and the erosion hazard is severe. Primary uses for this soil include grazing, wildlife habitat, and dryland farming.
- Potts-Ildefonso complex (58) – This complex is found on mesas, alluvial fans, and the sides of valleys at elevations ranging from 5,000 to 6,500 feet and on slopes of 12 to 25 percent. Parent material for this soil complex consists of sandstone, shale, and basalt. This soil complex is deep, well drained, and has medium surface runoff and moderate erosion hazard. 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 (69) – This deep, well-drained, moderately sloping soil is found on mesas, benches, and alluvial fans at elevations ranging from 5,000 to 7,200 feet and on slopes of 6 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 some areas being used for grazing.
- Vale silt loam (70) – This deep, well-drained, strongly sloping soil is found on mesas, mesa sides, and alluvial fans at elevations ranging from 5,000 to 7,200 feet and on slopes of 12 to 25 percent. This soil is derived from calcareous eolian material. Surface runoff for this soil is medium and the erosion hazard is severe. Primary uses for this soil include wildlife habitat, recreation, and grazing.

Environmental Effects

Proposed Action

As mentioned above, the allotments contain soils with erosion hazards and have slopes greater than 30%. Thus, grazing activities within the allotments could 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 potential that additional sediment associated with grazing practices could reach the numerous ephemeral drainages mentioned above and could in turn be transported to West Elk Creek, Main Elk Creek, East Elk Creek, and Elk 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.

No Grazing Alternative

Under this alternative, no livestock grazing would occur and there would be no direct or indirect impacts to soils from livestock use. Trampling or removal of plant material may still occur from wildlife grazing. In addition, soil disturbance and erosion may persist due to other surface disturbing activities, such as roads and trails that exist throughout the allotment.

Analysis on the Public Land Health Standard 1 for Upland Soils

Based on the Elk Creek Land Health Assessment, soil and site stability indicators received departure from expected ratings of ‘none to slight’ with the exception of indicators for water flow patterns, pedestals, and bare ground, which received ratings of ‘slight to moderate’ (BLM 2007c). Thus, Bureau of Land Management staff concluded that Standard 1 for Upland Soils was being achieved for the proposed allotments (BLM 2008). Implementation of the proposed action is not anticipated to degrade soil health from current conditions.

Water Quality, Surface and Ground

Affected Environment

Proposed activities would occur northwest of the Town of New Castle within the 114,649 acre Elk Creek 5th field watershed. More specifically, the Kissel and Ryden allotments are within the 10,936 acre Lower Main Elk Creek 6th field watershed; the Hogback Common allotment is within the 7,228 acre Mouth of Elk Creek (east portion) and the 5,974 acre Tributary to West Elk Creek (west portion) 6th field watersheds; and the Red Mountain allotment is within the 10,936 acre Lower Main Elk Creek (northwest portion), the 7,228 acre Mouth of Elk Creek (southwest portion), and the 25,380 acre East Elk Creek (east half) 6th field watersheds.

Overland flow within the allotments is derived from both snowmelt and thunderstorm activity. Within the Kissel and Ryden allotments are numerous ephemeral tributaries to the perennial Main Elk Creek. The Hogback Common allotment contains numerous ephemeral tributaries to

the perennial West Elk Creek while the Red Mountain allotment contains one ephemeral tributary to the perennial Elk Creek and one ephemeral tributary to the perennial East Elk Creek.

The Pretti-Roberts allotment is drained by several south flowing unnamed intermittent and ephemeral streams that are tributary to the Colorado River. The southern boundary of the allotment more or less follows the East Lateral Farmer Irrigation Ditch. Flow from the eastern portion of the allotment generally empties into either the Ware and Hinds Ditch or the Cactus Valley Ditch. Thus, these ditches somewhat isolate the Colorado River from potential water quality impacts that could occur from grazing activity on the allotment (BLM 2007c). Consequently, no water quality data has been collected on these intermittent drainages.

The State of Colorado has developed *Stream Classifications and Water Quality Standards* that identify beneficial uses of water and numeric standards used to determine allowable concentrations of water quality parameters (CDPHE 2010a). The drainages throughout the proposed allotments are tributaries to the Lower Colorado River Basin (Region 11) and have water use classifications described below:

Table 3-5. Stream Segment Description	Classifications
4a. All tributaries, including wetlands, to the Colorado River from the confluence with the Roaring Fork River to a point immediately below the confluence with Parachute Creek.	Aquatic Life Cold 2 Recreation N Water supply Agriculture
7a. Mainstem of Elk Creek and all tributaries, wetlands, lakes and reservoirs.	Aquatic Life Cold 1 Recreation E Water supply Agriculture

Aquatic life cold 1 indicates that a stream segment is capable of sustaining a wide variety of cold water biota. Aquatic life cold 2 indicates waters that are not capable of sustaining a wide variety of cold water biota. Recreation E refers to stream segments in which surface waters are used for primary contact recreation, while recreation N refers to stream segments with surface waters that are not suitable or intended to become suitable for primary contact recreation uses. Water supply and agriculture refer to stream segments that are suitable or intended to become suitable for potable water supplies and suitable for irrigation or livestock use.

The State of Colorado has developed a *303(d) List of Water Quality Limited Segments Requiring TMDLS and Monitoring and Evaluation List* that identifies stream segments that are not currently meeting water quality standards with technology based controls alone (CDPHE 2010b). The drainages within the Pretti-Roberts allotment are considered part of segment COLCLC04a – All tributaries to Colorado River, Roaring Fork to Parachute Creek - and have been listed as selenium impaired (CDPHE 2010b). This segment has been given a medium priority by the State of Colorado to develop a Total Maximum Daily Load (TMDL), a value of the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards. Selenium is mobilized in the ecosystem primarily by irrigation and naturally by rainfall and snowmelt, in selenium rich soils, such as Mancos Shale. Consequently, the proposed action has

little to no effect on selenium transport to the Colorado River. No other streams in the proposed allotments are on this list suggesting water quality standards are currently being met.

Environmental Effects

Proposed Action

Direct impacts to water quality resulting from grazing could be elevated nutrient levels (i.e. fecal coliform) if cattle begin to congregate near water sources for extended periods of time. Hoof action can cause surface compaction, stream bank shearing, elevated erosion rates and subsequent deterioration of water quality. Indirect impacts may result from excessive utilization in upland watershed areas reducing effective vegetative cover, elevating erosion potential and increasing sediment delivery to area streams which could negatively impact water quality. 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 numerous ephemeral drainages mentioned above and could in turn be transported to West Elk Creek, Main Elk Creek, East Elk Creek, and Elk Creek. However, with the implementation of grazing standards and guidelines, it is expected that potential negative impacts of increased sediment to water bodies would be short-term and localized. No irrigation or stock ponds are proposed in which selenium could be mobilized into nearby waterways; as such grazing would have little impact on selenium transport in the Pretti-Roberts allotment. The proposed stocking rate and duration are not expected to have a negative effect on water quality. Consequently, no additional site specific mitigation is recommended at this time.

No Grazing Alternative

Under this alternative, no livestock grazing would occur and there would be no direct or indirect impacts to water quality from livestock use. Trampling or removal of plant material may still occur from wildlife grazing, and soil disturbance and erosion may persist due to other surface disturbing activities, such as roads and trails that exists throughout the allotment, which could potentially affect water quality.

Land Health Standards for Water Resources

During the Land Health Assessment, BLM staff determined that site-specific conditions on the Pretti-Roberts allotment did not appear to be negatively impacting water quality (BLM 2007c, BLM 2008). However, the intermittent tributaries in this allotment are listed on the State's 303(d) list of impaired water quality for selenium contribution to the Colorado River, and therefore are not meeting Land Health Standard 5. Selenium contributions are typically associated with irrigation practices on saline soils. Thus, grazing practices are not expected to degrade current water quality conditions. For the other four allotments, BLM staff concluded that water quality is meeting Standard 5 (BLM 2008). Implementation of the proposed action is not anticipated to degrade water quality from current conditions.

Wildlife: Aquatic / Fisheries

Affected Environment

Pretti-Roberts

This allotment contains no perennial waters. The nearest perennial water is Grass Valley Reservoir approximately ½ mile to the northwest, and the Colorado River located approximately

2.25 miles to the south. Upland conditions are poor as indicated in the above vegetation section, which may be causing undo erosion and sedimentation to nearby water sources

Red Mountain

Main Elk creek bisects this allotment between previously designated Ryden, Kissel and Red mountain pastures. This creek contains mottled sculpin, brown trout, Colorado River cutthroat trout and rainbow trout. The water is largely private in the lower reaches with only two very small parcels of BLM land along them. However, BLM does manage large amounts of upland habitat within this watershed and does have some potential influence on the condition of these streams. With respect to fish productivity, this creek is limited primarily due to low seasonal flows associated with irrigation diversions which reduce sufficient water quantities needed to support large populations of fish in the lower stream reaches. The Red Mountain allotment contains no perennial waters within its boundaries and Elk Creek Land Health standards indicate that upland vegetation is in good condition.

Hogback Common

This allotment contains no perennial waters. The nearest perennial water is Grass Valley Reservoir at the western boundary and Elk Creek along the northeastern boundary. Upland conditions are poor as indicated, which may be causing undo erosion and sedimentation to nearby water sources. Given the proximity to special status fish species, the allotment and its condition have little bearing on the meeting of Standard 4 for aquatic wildlife.

Environmental Effects

Proposed Action

Given the lack of water (perennial or ephemeral) resources, the proposed action is unlikely to have any measurable effect to aquatic wildlife or the surrounding watershed habitats. No applicable species are recorded within the grazing allotments.

No Grazing Alternative

This alternative would not impact aquatic wildlife.

Land Health Standards

Given the lack of water, these allotments and its condition have little bearing on the meeting of Land Health Standard 3 & 4 for aquatic wildlife.

Wildlife: Migratory Birds

Affected Environment

Raptors and neotropical migrants are afforded protection under the Migratory Bird Treaty Act. Neotropical migrants include birds that breed in the United States and Canada and winter in Latin America (Nicholoff 2003). BLM Instruction Memorandum No. 2008-050 provides guidance toward meeting the Bureau of Land Management's (BLM) responsibilities under the Migratory Bird Treaty Act (MBTA) and the Executive Order (EO) 13186. The guidance directs Field Offices to promote the maintenance and improvement of habitat quantity and quality. To avoid, reduce or mitigate adverse impacts on the habitats of migratory bird species of conservation concern to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities.

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the U.S. Fish and Wildlife Service (USFWS) to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973.” The “*BIRDS OF CONSERVATION CONCERN 2008*” (U.S. Fish and Wildlife Service 2009) is the most recent effort to carry out this mandate.

The MBTA prohibits the “take” of a protected species. Under the Act, the term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The USFWS interprets “harm” and “kill” to include loss of eggs or nestlings due to abandonment or reduced attentiveness by one or both adults as a result of disturbance by human activity, as well as physical destruction of an occupied nest.

The conservation concerns are the result of population declines - naturally or human-caused, small ranges or population sizes, threats to habitat, or other factors. Although there are general patterns that can be inferred, there is no single reason why any species is on the list. Habitat loss is believed to be the major reason for the declines of many species. When considering potential impacts to migratory birds the impact on habitat, including: 1) the degree of fragmentation/connectivity expected from the proposed project relative to before the proposed project; and 2) the fragmentation/connectivity within and between habitat types (e.g., within nesting habitat or between nesting and feeding habitats. Continued private land development, surface disturbing actions in key habitats (e.g. riparian areas) and the proliferation of roads, pipelines, powerlines and trails are local factors that reduce habitat quality and quantity for many species.

The larger continuous Elk Creek watershed that these allotments are a part of, provide habitat for a variety of raptor species including golden eagles and red-tailed hawks. Several nest sites for these species have been recorded within the watershed. Mature pinyon-juniper woodlands provide an abundance of nesting habitat within the area. A few sites also include a rocky outcrop component, which provides excellent nesting habitat for raptor species. Suitable habitat exists for a variety of migratory birds throughout the landscape. Priority species on the USFWS Birds of Conservation Concern List that may nest in the area include: sage sparrow, Williamson’s sapsucker, Lewis’s woodpecker, Virginia’s warbler, grey vireo, pinyon jay, black-throated gray warbler and flammulated owl.

Various other species of migratory birds utilize habitat within the watershed. Sagebrush stands provide nesting and foraging habitat for vesper sparrow, Brewer’s sparrow and green-tailed towhee. Pinyon-juniper woodlands provide nesting and foraging habitat for plumbeous vireo, black-chinned humming bird and blue gray gnatcatcher. Dusky flycatcher utilize mixed mountain shrub habitat. Aspen woodlands provide nesting and foraging habitat for warbling vireo, red-naped sapsucker, western wood-pewee and red-shafted flicker. Western tanager and yellow-rumped warbler can be found in mixed coniferous forests. Hummingbirds were observed at two sites during Land Health evaluations.

Environmental Effects

Proposed Action

Livestock grazing will not directly affect cavity, cliff, and tree nesting species including flammulated owls, Golden Eagles, Red-tailed hawks, Lewis woodpeckers, Williamson's sapsucker, grey vireo, Piñon jay, Broad-tailed hummingbirds, or black throated gray warbler. Therefore, no take of these species or their nests is expected to occur as a result of trailing under the Proposed Action or alternatives. The ground nesting of the Virginia's warbler, Grasshopper sparrow, and Green-tailed towhee will not be inadvertently affected due to nests being located in dense vegetation usually beneath shrubs or dense undergrowth. Although the Brewers sparrow's and Sage sparrow's nesting period overlaps the spring livestock grazing periods, no suitable expanses of contiguous sage parks necessary for nesting are available within these allotments and therefore "take" is extremely unlikely. Ground nesting neotropical migrants are generally small in size and do not require large amounts of herbaceous cover that may be perceived as an indirect effect for competition for nesting material.

No Grazing Alternative

Migratory birds would have similar affects under this alternative.

Wildlife: Sensitive, Threatened, and Endangered

Affected Environment

No mapped habitat exists for Greater sage grouse or Canada lynx on these allotments as a result these species are removed from analysis.

Bald Eagles

The Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

For purposes of these guidelines, "disturb" means: "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

The Bald eagle is currently listed as a BLM sensitive species. Bald eagle winter range and potential winter roost habitat is located along Main and East Elk Creeks within the proposed Red Mountain grazing allotment area. Most of the bald eagle winter range habitat along these

creeks is located on private lands. However, where large cottonwood and/or conifer trees occur on public land portions of the river, roosting and foraging opportunities do exist.

Environmental Effects

Proposed Action

Bald eagle habitat on BLM lands is primarily upland habitats that are used as scavenging areas for winter or vehicle killed mule deer and elk. Bald eagle use of BLM lands in this watershed would coincide with big game use of winter habitat. The majority of the upland sites assessed in 2006 were meeting Land Health Standard 3 for healthy animal communities, and ample quantities of forage capable of maintaining elk and mule deer herds exist. Thus an adequate amount of potential carrion is available within the greater landscape area. The current proposed action does not violate the BGEPA nor would it cause any negative impact to this raptor's habitat.

No Grazing Alternative

Bald eagles would not be impacted by this alternative.

Land Health Standards

Standard 4 is being met for this species within the Elk Creek watershed.

Wildlife: Terrestrial

Affected Environment

Large Mammals

In addition to grazing by domestic livestock, wild ungulate grazing (primarily mule deer and elk), are a factor contributing to range conditions in the landscape, particularly in the low and mid-elevation sagebrush habitats located within big game winter range. Large portions of the Elk Creek watershed are mapped as mule deer and elk winter range, severe winter range and winter concentration areas. The Colorado Parks and Wildlife (CPW) manages all of these species and has specific management objectives for each species.

Elk in the watershed are managed in Data Analysis Unit (DAU) E-6, which encompasses Game Management Units (GMU) 11, 12, 13, 23, 24, 25, 26, 33, 34, 131, 211 and 231. All of the allotments are within the GMU 33 boundary. . The current population estimate for E-6 is 39,020 animals. The current population objective for elk in DAU E-6 is 28,500 animals but is being proposed for somewhere between 32,000 and 39,000 animals. Elk herds within this watershed have steadily increased over the years and are currently near their peak.

Mule deer within the landscape assessment area are managed in DAU D-42, which encompasses GMU 33. The current population objective for deer in DAU D-42 is between 7,700 and 9,400. The current population estimate is 8,300 animals. The current population objective for DAU D-43 is 10,890 animals. The CPW recommended population objective is for 7,000 animals. These deer populations appear to have peaked about four times in the past 50 years. Populations reached a low point in 1993 after the severe winter of 1992. Since that time the herds appear to be growing. In the past 25 years, there have been 4 notable bad winters that caused short-term declines – 1978-79, 1992-93, 2006-07, and 2010-2011. The winter of 1983-84 was very severe in most parts of the state but this area was spared from the very deep snows.

The management of mule deer and elk are the responsibility of the CPW. However, the BLM is responsible for the management of wildlife habitats under its jurisdiction and works cooperatively with the CPW in managing these habitats on public lands within the watershed. As DAU objectives for both mule deer and elk are revised and updated, BLM participates in meetings. When populations for both species exceed objectives, the CPW will work to reduce numbers to objective levels. These efforts should help to improve habitat conditions in the area. In addition to population management, opportunities exist within this landscape to proactively treat and improve winter range habitat, particularly sagebrush and pinyon-juniper plant communities.

These allotments are all entirely within both elk and mule deer winter areas. Winter range areas are where big game generally congregate during typical winter months to access forage and browse species that are more accessible. Severe winter range and winter concentration areas for these two species are also prevalent within the analysis area. These lower elevation areas are particularly important for maintaining herd numbers as deer and elk depend on replenishing nutrient deficiencies incurred during harsh winter months to produce milk for respective fawning or calving activities post parturition.

Environmental Effects

Proposed Action

With the combination of current range conditions, wild ungulate herd numbers, weed infestations, and proposed livestock grazing number/durations, vegetation depletions may be severe enough to cause forage shortages for big game in winter concentration areas associated with lower elevations of the Pretti-Roberts and Hogback common allotments. As indicated in the vegetation section, currently key perennial species are sparse and in large part lacking within the Pretti-Roberts allotment. Given these conditions, wild ungulate populations may cause conflicts with adjacent private lands and perhaps more pressure on habitats within the analysis area that are currently meeting land health standards. Incorporation of adaptive management mitigations may reduce some of the livestock grazing impacts on wildlife.

No Grazing Alternative

This alternative would likely be beneficial in the short term for terrestrial wildlife. However, due to erratic grazing patterns of big game, it is expected that unchecked downy brome populations would eventually deplete existing perennial grass and forb species needed for long term land and herd health.

Mitigation

Adaptive Livestock grazing management based on local climatic and range conditions. As stated in the Vegetation section, adjust permit based on site specific perennial vegetation objectives.

Land Health Standards

- Pretti-Roberts: **not** meeting standard 3
- Hogback common: **not** meeting standard 3
- Red Mountain: meeting standard 3

As stated above, plant communities in the Pretti-Roberts and Hogback Common allotments are in poor condition and are not meeting Standard 3. The allotment is also not meeting Standard 3 for wildlife. Weeds in the allotment, specifically cheatgrass, are reducing the quality of habitat for many wildlife species. Lack of seral stages in sagebrush stands and pinyon-juniper encroachment are also contributing to the poor quality of wildlife habitat.

CUMULATIVE EFFECTS

Soil and Water. Cumulative impacts to soil and water resources can occur from existing roads and trails throughout the allotment. Roads and trails can contribute to increased surface runoff and accelerated erosion, especially where proper drainage is lacking. Other impacts such as vegetation treatments or weed treatments may also change water infiltration or runoff rates and affect soil and water resources. Based on limited land management activities occurring across the allotment, it is assumed that cumulative effects to soil and water are minor and unmeasurable.

5. Tribes, Individuals, Organizations, or Agencies Consulted

Erin Leifeld consulted with the Southern Ute Tribe, Ute Tribe of the Uinta and Ouray Bands, and Ute Mountain Ute Tribe regarding this proposal.

Grazing permittee

6. List of Preparers

Members of the CRVFO Interdisciplinary Team who participated in the impact analysis of the Proposed Action and alternatives, development of appropriate mitigation measures, and preparation of this EA are listed in Table 6-1, along with their areas of responsibility.

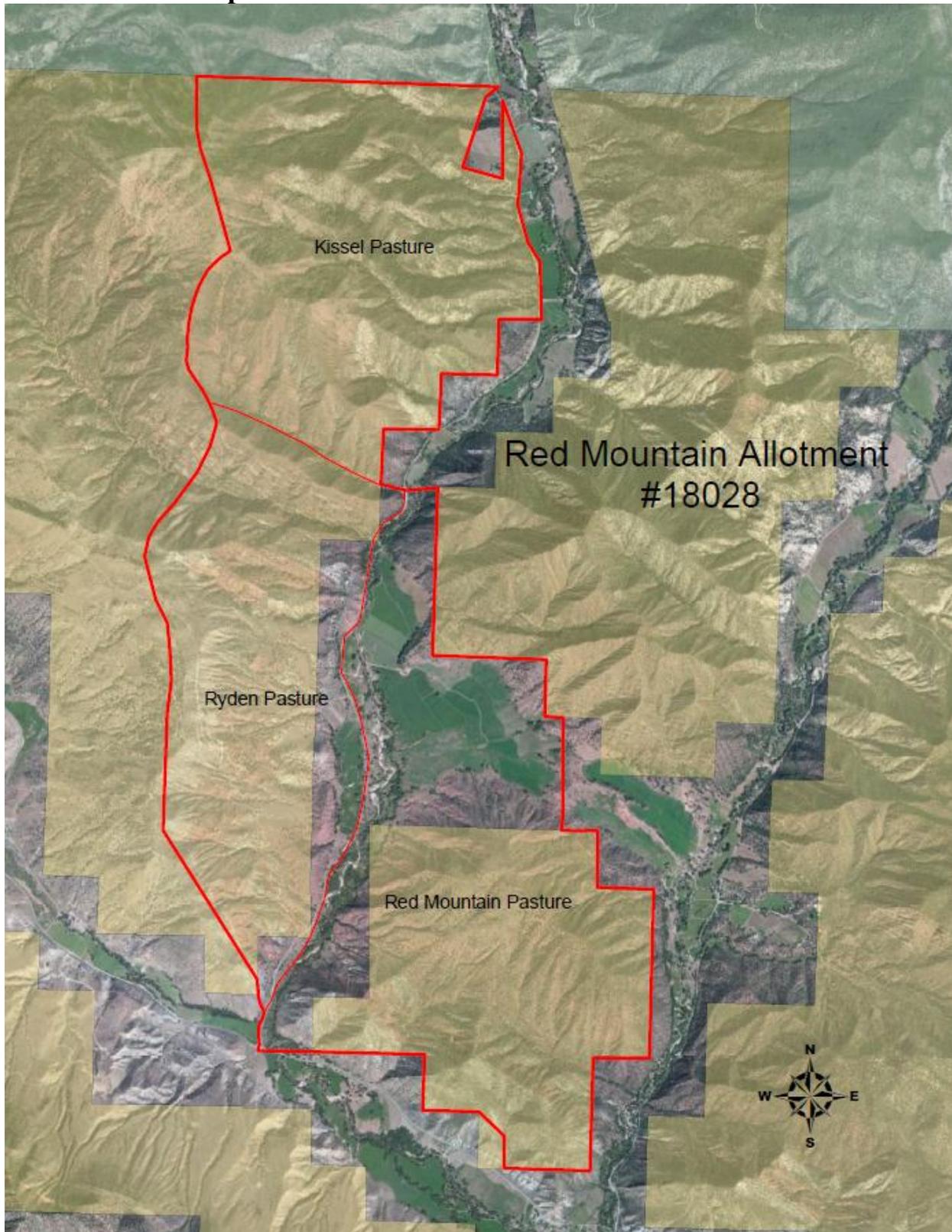
Table 6-1. BLM Interdisciplinary Team Authors and Reviewers		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Isaac Pittman	Rangeland Management Specialist	NEPA lead, Range
Carla DeYoung	Ecologist	ACEC, Vegetation, T/E/S Plants, Land Heath Standards
Greg Wolfgang	Outdoor Recreation Planner	VRM, Recreation, Travel Management
Kimberly Miller	Outdoor Recreation Planner	Wild and Scenic Rivers, Wilderness
Erin Leifeld	Archaeologist	Cultural Resources and Native American Concerns
Darren Long	Wildlife Biologist	Migratory Birds, Terrestrial Wildlife and T/E/S Terrestrial Wildlife, Aquatic Wildlife and T/E/S Aquatic Wildlife
Everett Bartz	Rangeland Management Specialist	Wetlands & Riparian Zones
Pauline Adams	Hydrologist	Air Quality, Water Quality, Soils

7. References

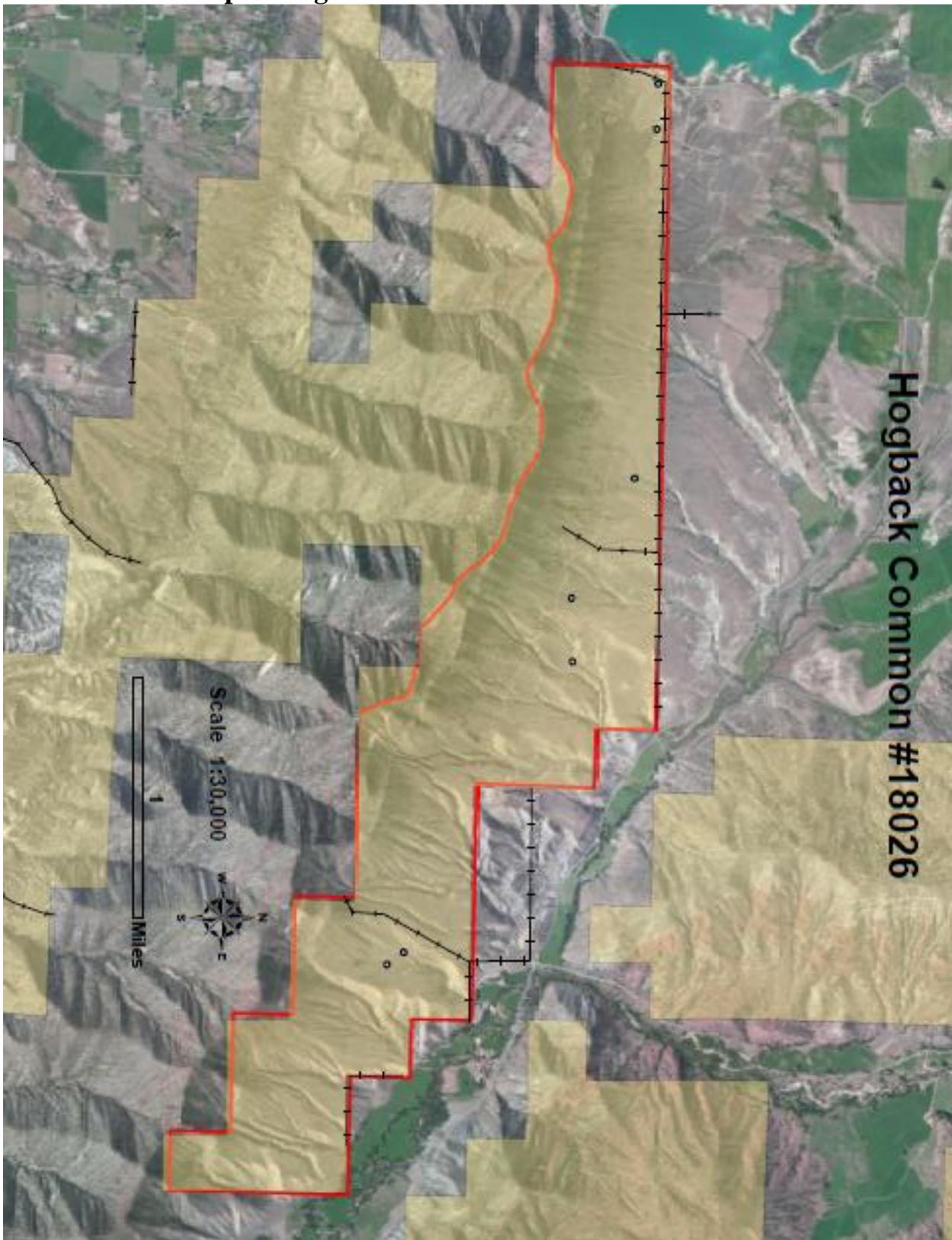
- Bartlett, E. Tom, L. Allen Torell, Neil R. Rimbey, Larry W. Van Tassell, Daniel W. McCollum. 2002. *Valuing Grazing Use on Public Land*. Journal of Range Management, Vol. 55, No.5, pp.426-438.
- Bureau of Land Management (BLM). 1984. Glenwood Springs Resource Management Plan. Glenwood Springs Field Office, Colorado.
- Bureau of Land Management (BLM). 2007a. Record of Decision for the Approval of Portions of the Roan Plateau Resource Management Plan Amendment and Environmental Impact Statement.
- Bureau of Land Management (BLM). 2007b. North-Central Colorado Community Assessment Report for the Bureau of Land Management Glenwood Springs Field Office and Kremmling Field Office.
- Bureau of Land Management (BLM). 2007c. Evaluations and Determination for Pretti-Roberts Allotment: Achieving the Colorado Standards for Public Land Health and Conformance with the Guidelines for Livestock Grazing Management. Unpublished data. Colorado River Valley Field Office, Silt, CO.
- Bureau of Land Management (BLM). 2008. Elk Creek Land Health Assessment Summary Report. Unpublished report. Colorado River Valley Field Office, Silt, CO.
- Bureau of Land Management (BLM). 2009. Information Bulletin No. CO-2010-007. State Director's Sensitive Species List, December 15, 2009.
- Census 2010 U.S. Census. County-Level Unemployment and Median Household Income for Colorado <http://www.ers.usda.gov/Data/Unemployment/RDList2.asp?ST=CO>
- Church, Minette C., Steven G. Baker, Bonnie J. Clark, Richard F. Carrillo, Johnathon C. horn, Carl D. Spath, David R. Guifoyle, and E. Steve Cassells. 2007. *Colorado History: A Context for Historical Archaeology*. Colorado Council of Professional Archaeologists, Denver, Colorado.
- Colorado Department of Health and the Environment (CDPHE). 2010a. Regulation No. 37, Classifications and Numeric Standards for Lower Colorado River Basin (5 CCR 1002-37). Water Quality Control Commission. Available online: <http://www.cdphe.state.co.us/regulations/wqccregs/>
- Colorado Department of Health and the Environment (CDPHE). 2010b. Regulation No. 93, Colorado's 303 (d) List of Impaired Waters and Monitoring and Evaluation List, (5 CCR 1002-93). Water Quality Control Commission. Available online: <http://www.cdphe.state.co.us/regulations/wqccregs/>

- Gentner, Bradley J. and John A. Tanak. 2002. *Classifying Federal Public Land Grazing Permittees*. Journal of Range Management, Vol. 55, No.1, pp.2-11.
- Gruver, J.C. and D.A. Keinath. 2006. Townsend's Big-eared Bat (*Corynorhinus townsendii*): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: <http://www.fs.fed.us/r2/projects/scp/assessments/townsendbig-earedbat.pdf>. Accessed on 12-3-2011.
- Huntsinger, Lynn and Peter Hopkinson. 1996. *Sustaining Rangeland Landscapes: A Social and Ecological Process*. Journal of Range Management, Vol. 49, No.2, pp.167-173.
- Natural Resource Conservation Service (NRCS). 1985. Soil Survey of Rifle Area, Colorado, Parts of Garfield and Mesa Counties. Available online: http://soils.usda.gov/survey/online_surveys/colorado/
- Natural Resource Conservation Service (NRCS). 2011. Map Unit Descriptions for *Rifle Area, Colorado, Parts of Garfield and Mesa Counties*. Soil Data Viewer application. Available online: <http://soils.usda.gov/sdv/>.
- Rowe, Helen Ivy, E. T. Bartlett, Louis E. Swanson, Jr., 2001. *Ranching Motivations in 2 Colorado Counties*. Journal of Range Management, Vol. 54, No.4, pp.314-321.
- Smith, Arthur H. and William E. Martin. 1972. *Socioeconomic Behavior of Cattle Ranchers, with Implications for Rural Community Development in the West*. American Journal of Agricultural Economics, Vol.54, No.2,pp.217-225.
- U.S. Fish and Wildlife Service (USFWS). 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. http://library.fws.gov/bird_publications/bcc2008.pdf. [Accessed on 12-7-2011].
- U.S. Fish and Wildlife Service. 2010. [Online]. Website: <http://www.fws.gov/mountain-prairie/endspp/countylists/colorado.pdf>. [Accessed on 12-7-2011].

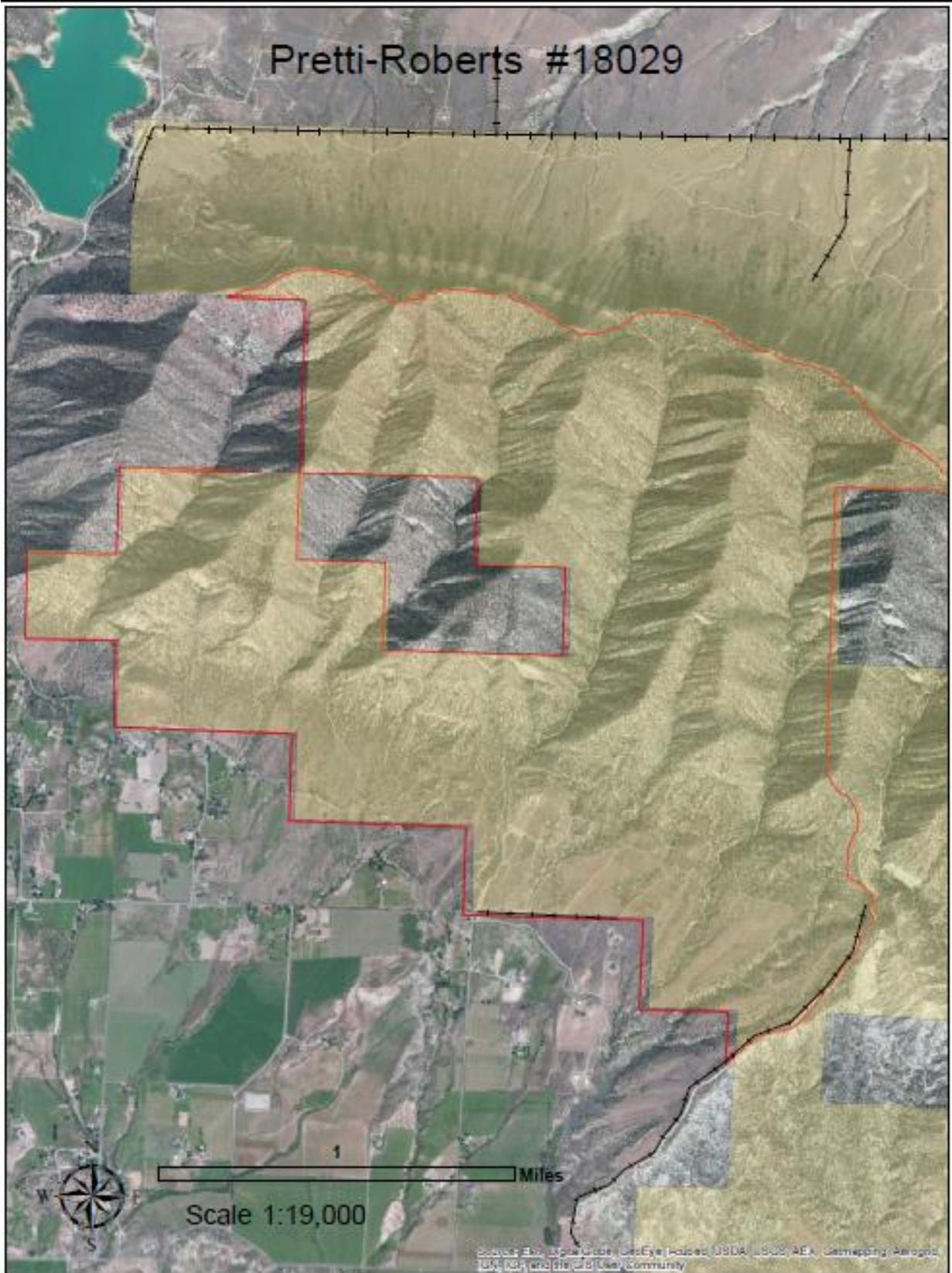
Attachment 1: Map of Red Mountain Allotment



Attachment 2: Map of Hogback Common Allotment



Attachment 3: Map of Pretti-Roberts Allotment



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COLORADO RIVER VALLEY FIELD OFFICE

FINDING OF NO SIGNIFICANT IMPACT

Grazing Permit Renewal on the Red Mountain, Hogback Common, and Pretti Roberts Allotments

DOI-BLM-N040-2013-0036-EA

Finding of No Significant Impact

I have reviewed the direct, indirect and cumulative effects of the proposed action documented in the EA for the grazing permit renewal on the Red Mountain, Hogback Common, and Pretti Roberts Allotment. The effects of the proposed action are disclosed in the Alternatives and Environmental Impacts sections of the EA. Implementing regulations for NEPA (40 CFR 1508.27) provide criteria for determining the significance of the effects. Significant, as used in NEPA, requires consideration of both *context* and *intensity* as follows:

(a) Context. This requirement means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short and long-term effects are relevant (40 CFR 1508.27):

The disclosure of effects in the EA found the actions limited in context. The planning area is limited in size and activities limited in potential. Effects are local in nature and are not likely to significantly affect regional or national resources.

(b) Intensity. This requirement refers to the severity of the impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following are considered in evaluating intensity (40 CFR 1508.27).

1. Impacts that may be both beneficial and/or adverse.

Impacts associated with this livestock grazing permit renewal are identified and discussed in the Affected Environment and Environmental Effects section of the EA. The proposed action will not have any significant beneficial or adverse impacts on the resources identified and described in the EA.

2. The degree to which the proposed action affects health or safety.

The proposed activities will not significantly affect public health or safety. The purpose of the proposed action is to allow for multiple uses while maintaining or improving resource conditions

to meet standards for rangeland health in the allotment. Similar actions have not significantly affected public health or safety.

3. Unique characteristics of the geographic area such as prime and unique farmlands, caves, wild and scenic rivers, wilderness study areas, or ACECs.

There are no unique characteristics of the geographic area.

4. The degree to which the effects are likely to be highly controversial.

The possible effects of continued livestock grazing are not likely to be highly controversial.

5. The degree to which the effects are highly uncertain or involve unique or unknown risks.

The possible effects on the human environment are not highly uncertain nor do they involve unique or uncertain risks. The technical analyses conducted for the determination of the impacts to the resources are supportable with the use of accepted techniques, reliable data, and professional judgment. Therefore, I conclude that there are no highly uncertain, unique, or unknown risks.

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

This EA is specific to the Red Mountain, Hogback Common, and Pretti Roberts Allotments. It is not expected to set precedent for future actions with significant effects or represent a decision in principle about a future management consideration in or outside of this allotment.

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

The area covered by the proposed action only comprises a small portion of the watershed. Cumulatively, many of the future actions planned on private and other lands may have some undetermined effect on wildlife including special status species habitat. The proposed action would create negligible landscape-level cumulative impacts to wildlife when viewed in conjunction with those activities currently occurring and reasonably certain to occur on adjacent private/other lands.

8. The degree to which the action may adversely affect scientific, cultural, or historical resources, including those listed in or eligible for listing in the National Register of Historic Places.

The Pretti-Roberts Allotment #18029 has had five previous cultural resource inventories (CRVFO# 1012, 1071, 1111-20, 1112-18, 15404-2) conducted totaling 557 acres inventoried. Twenty-two cultural resources have been identified in the allotment and include eleven prehistoric isolated finds and one historic isolated finds which are not eligible for the National Register of Historic Places (NRHP). Additionally, four prehistoric sites (5GF.4487, 5GF.3386,

5GF.311, and 5GF344) four historic sites (5GF3381, 5GF.3632, 5GF.3405.1 and 5GF.4489) are not eligible for the NRHP. Finally, two prehistoric sites (5GF4490 and 5GF.4486) are potentially eligible for the NRHP. Looking at the GLOs from 1883 there are no historic features within this allotment.

Twelve cultural resource inventories (CRVFO# 145, 1005, 1022, 1086, 1092, 1003-26, 1006-4, 1105-12, 1112-18, 2259-1A, 5497.19, 15404-2) have been previously conducted within the Hogback Commons Allotment #18026 totaling 349 acres. Three cultural resources were documented during these inventories. One prehistoric open lithic site (5GF.3114) and one prehistoric isolated find (5GF.3651) are not eligible for the NRHP. Additionally, one historic site (5GF.1164) is potentially eligible for the NRHP.

The Red Mountain Allotment #18028 has had eleven cultural resource inventories (CRVFO#69, 145, 339, 591, 1005, 1095, 1407, 1199-6, 2295-1A, 5495-2 and SHPO#GF.R.R4) previously conducted totaling 346 acres inventoried. A total of six cultural resource have been identified with the allotment and include two prehistoric isolated finds, one prehistoric site (5GF.315) and two historic sites (5GF.2613 and 5GF.428) all of which are not eligible for the NRHP. One additional prehistoric site (5GF.313) is potentially eligible for the NRHP.

No negative impacts are expected under the proposed action. Three cultural resources are recommended to be revisited and monitored to determine if adverse impacts are occurring.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

There is no endangered or threatened species or its habitat included within the assessment area.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The proposed action does not violate or threaten to violate any Federal, State or local laws or requirements imposed for the protection of the environment.

Based upon the review of the test for significance and the environmental analyses conducted, I have determined that the actions analyzed in the EA will not significantly affect the quality of the human environment. Accordingly, I have determined that the preparation of an Environmental Impact Statement is not necessary for this proposal.



Authorized Officer
Colorado River Valley Field Office

4-22-2013

Date