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BUREAU OF LAND MANAGEMENT
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ENVIRONMENTAL ASSESSMENT

1. Introduction

NUMBER: DOI-BLM-CO-040-2012-0002 EA

CASEFILE NUMBER: 0507653

PROJECT NAME: Grazing Permit Renewal on the Wheeler Gulch, Riley Gulch, and Starkey Gulch Allotments

PLANNING AREA: Garfield County, Northwest of Parachute, CO

LEGAL DESCRIPTIONS: T7S R96W portions of sections 4,5,8,9 & T6S R96W portions of sections 26, 29, 32, 34, 35 (see attached allotments map)

APPLICANT: Grazing Permittee

SCOPING AND PUBLIC INVOLVEMENT AND ISSUES:

A notice of public scoping was posted on the Colorado BLM's Internet web page on September 1, 2011 regarding grazing permits and associated allotments scheduled for renewal in 2011-2012. A news release was posted on September 8, 2011. The public was provided an opportunity to offer any information or concerns, or to be considered as an interested public on a permit or allotment scheduled for renewal. There have been no responses received specific to the permit renewal or allotments addressed in this NEPA document. The Colorado River Valley Field Office Internet NEPA Register also lists grazing permit renewal NEPA documents that have been initiated. They are generally posted approximately one month prior to the estimated completion date.

PURPOSE AND NEED FOR ACTION:

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

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

2. Proposed Action and Alternatives Analyzed in Detail

DESCRIPTION OF PROPOSED ACTION:

The Proposed Action is to renew a term grazing permit. The number/kind of livestock, period of use, percent public land and Animal Unit Months (AUMs) will remain the same as the previous permit. The permit would be issued for a 10-year period unless the base property is leased for less, but for purposes of the EA, we are assuming 10 years of grazing by this or another applicant (in case of transfer). The proposed action is in accordance with 43 CFR 4130.2. Scheduled grazing use and grazing preference for the permit are summarized below.

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

Allotment Name & No.	Livestock No. & Kind	Period of use	Percent Public Land	AUMs
Wheeler Gulch #08918	4 Cattle	4/16 – 5/31	100	6
Riley Gulch #08920	76 Cattle	5/1 – 6/15	100	115
Starkey Gulch #08917	42 Cattle	5/1 – 5/31	12	5

Table 2-2 Grazing Preference AUMs:

Allotment Name & No.	Active	Suspended	Total
Wheeler Gulch #08918	8	116	124
Riley Gulch #08920	115	0	115
Starkey Gulch #08917	5	72	77

The following Other Terms and Conditions will be included on the renewed permit:

Adaptive management will be employed on these allotments. The BLM will allow up to 14 days of flexibility in the start and end dates on this permit depending on range readiness. The range will be considered ready when there is a minimum of 4 inches of new growth on grasses. AUMs may not exceed Active Preference. Use different than that shown above must be applied for in advance.

Within the uplands average livestock utilization levels will be limited to 50% by weight on key grass species. Livestock grazing in riparian areas should leave an average minimum 4-inch stubble height of herbaceous vegetation and will not exceed an average utilization of 40% of the current year's growth of browse species. Livestock will be moved to another portion of the allotment, moved to the next scheduled pasture or removed immediately from the allotment when the above utilization levels occur.

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

Additional Background Information:

A review of recent billings indicates that the allotments are being fully utilized. However, Monitoring and use supervision has reported little to no use on all three allotments. The Riley Gulch allotment also has one other grazing permit authorizing the following use:

Table 2-3 Other Permitted Use:

Allotment Name & No.	Livestock No. & Kind	Period of use	Percent Public Land	AUMs
Riley Gulch #08920	26 Cattle	5/13 – 6/15	100	29

NO GRAZING ALTERNATIVE:

Under this alternative the grazing permit described in the Proposed Action would not be reissued. This alternative would also impact the other grazing permit in the Riley Gulch allotment. As a result, no grazing would be authorized on the Riley Gulch, Starkey Gulch, and Wheeler Gulch 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.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL:

The “No Action alternative” has been eliminated from further consideration. The No Action alternative would involve reissuing the permit/lease with current terms and conditions and no additional stipulations would be added to the permit/lease. This action would essentially be the same action as the proposed action and therefore is not further analyzed.

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; and amended in March 2009 - Record of Decision for the Designation of Areas of Critical Environmental Concern for the Roan Plateau Resource Management Plan.

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.

Riley Gulch, Starkey Gulch and the Wheeler Gulch allotments were all included in a formal land health assessment of the Rifle-West Landscape in 2005. The assessment determined that these allotments were meeting or marginally meeting all the standards, except Standard 3 for wildlife. The primary factor for failing to meet the standard was habitat loss and fragmentation due to oil and gas development. Livestock grazing was not considered to be a significant causal factor in the failure to achieve the standard for these three allotments.

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 Consequences

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 consequences on the affected environment stemming from the implementation of the various actions.

A variety of laws, regulations, and policy directives mandate the evaluation of the effects of a proposed action and alternative(s) on certain 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.

Table 3-1 Potentially Affected Resources

Component of the Environment, Supplemental Authorities	Potentially Affected?	
	YES	NO
Access and Travel		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
Forest Resources		X
Geology and Minerals		X
Law Enforcement		X
Livestock Grazing	X	
Minerals and Energy		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 - Endangered ,Threatened, or Sensitive	X	
Wildlife: Aquatic	X	
Wildlife: Terrestrial - Sensitive, Threatened, or Endangered	X	
Wildlife: Migratory Birds	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#1012-1) was completed for the Wheeler Gulch, Riley Gulch, and Starkey Gulch allotments on October 14, 2011 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)
Wheeler Gulch #08918	97.3	452.7	17.6%	0	No	No additional inventory, no properties to be visited
Riley Gulch #08920	406.5	952.5	29.9%	1	No	No additional inventory, no properties to be visited
Starkey Gulch #08917	329.8	314.2	51.2%	2	No	No additional inventory, no properties to be visited

Ten cultural resource inventories have been previously conducted within the Wheeler Gulch Allotment #08918 resulting in the survey coverage of 97.3 acres at a Class III level. No cultural resources were discovered during inventory. Looking at the General Land Office (GLO) Patents from 1890 and 1914, indicated there is potential for historic sites along a historic road and irrigation ditch near the very south western portion of this allotment which occur mostly on BLM lands. The area of BLM land located near this historic segment did not indicate the presence of cultural resources.

In the Riley Gulch Allotment #08920, 22 previous Class III cultural resource inventories have been conducted covering 406.5 acres. One prehistoric isolated find (5GF4078) was identified during inventory and is not eligible for the National Register of Historic Places (NRHP). The GLO patents from 1921 indicated there is potential for historic sites because of a historic trail that runs through the west side of the allotment along Riley Gulch. A portion of this historic trail runs through BLM lands but the area has been surveyed by previous project inventories and no cultural resources were identified.

Eight cultural resource inventories have been previously conducted within the Starkey Gulch Allotment #08917 resulting in the survey coverage of 329.8 acres at a Class III level. Two cultural resources were discovered during inventory; one is a prehistoric open camp (5GF1189) and one is a prehistoric isolated find (5GF2107), both of which are not eligible for the NRHP. Looking at the GLO patents from 1914 indicated that there is potential for historic sites because there was a historic house in the south portion of this allotment on BLM land. This portion of

the allotment has been surveyed by previous cultural resource inventories and no cultural resources were identified.

Within these three allotments, there is potential for encountering historic sites based on historic GLO maps. Areas that have potential to contain historic sites have largely been surveyed by previous cultural resource inventories and no historic properties were identified relating to the historic GLO records.

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 unknown historic properties.

No further survey is necessary within these three allotments with the proposed action alternative based on high percentage of previous cultural resource inventory within the area of potential effect (APE). The remaining unsurveyed area has low potential for archaeological sites as it contains steep slopes where archaeological sites are limited. Additionally, two prehistoric isolated finds and two prehistoric sites were recorded during the previous cultural resource inventories within these three allotments but all cultural resources are not eligible for the NRHP and need no further work.

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 Measures

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 several acts and Executive Orders, namely 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 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 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 December 16, 2011, requested the tribes to identify issues and areas of concern within the allotments. No comments were received.

Environmental Effects

Proposed Action

The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such 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. No traditional cultural properties, unique natural resources, or properties of a type previously identified as being of interest to local tribes, were identified during the overview of the cultural resources inventory of the project area.

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 Native American religious concerns are unknown.

Livestock Grazing

Affected Environment

All three of these allotments are primarily used in conjunction with adjacent private property. The permittee currently leases property above and below these allotments resulting in some use as cattle cross through the BLM or use the edges directly adjacent to the private leases. Primary

water sources on BLM are un-developed waters such as natural drainages. All three allotments are heavily impacted by oil and gas development.

Environmental Effects

Proposed Action

Under this action, grazing would continue to be authorized at the same levels as previous permits. Grazing utilization would continue to be light. Impacts from grazing would be minimal. No fencing would be needed to prevent unauthorized use on the public lands.

No Grazing Alternative

Under this alternative, this grazing permit would not be renewed. Another permittee would also be affected that currently has authorized use on Riley Gulch. Cancelling grazing use on these allotments would likely result in economic harm to the permittees. The permittees or adjacent land owner, to protect themselves from trespass proceedings, may need to fence any unfenced portions of their private property where livestock would tend to cross onto public lands. The BLM would likely need to respond to more frequent trespass reports. 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.

Plants: Invasive Non-Native Species (Noxious Weeds)

Affected Environment

A landscape-wide inventory has not been completed on the proposed project site. However, given the widespread nature of noxious weed infestations throughout the area, it is assumed that some level of infestation does exist in the project area.

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, (over-grazing), can cause a decline in desirable native plant species and ground cover which provides a niche for noxious weed invasion. In addition, noxious weed seed can be transported and introduced to new areas by fecal deposition or by seed that clings to the animal's coat. However, this effect is minimal as compared to other weed seed dispersal vectors such as vehicle routes and ground disturbing activities. Conversely, properly managed livestock grazing which does not create areas of bare ground and which maintains the vigor and health of native plant species, particularly herbaceous species, is not expected to cause a substantial increase in noxious weeds. Since the proposed action was designed to sustain and/or improve land health, no significant impacts to non-native, invasive species are expected. Noxious and invasive plant species are not expected to radically increase as a result of the continuation of livestock grazing practices and most infestations will be isolated to watering facilities, salting areas, and other livestock high concentration locations.

No Grazing Alternative

Under this alternative, no livestock grazing would occur on these allotments and there would be no direct or indirect impacts to weeds from livestock use. Trampling or removal of plant material may still occur from wildlife grazing and noxious weeds may still become established from adjacent areas disturbed for oil and gas development.

Plants: Sensitive, Threatened or Endangered

Affected Environment

Table 3-3 summarizes the latest species list (USFWS 2011) from the U. S. Fish and Wildlife Service for federally listed, proposed, or candidate plant species and the Colorado BLM State Director's 2009 Sensitive Species List for plant species that may occur in Garfield County and be impacted by the proposed action.

Table 3-3. Federally Listed, Proposed or Candidate Plant Species		
Species	Habitat/Range	Occupied/Potential Habitat Present /Absent
Colorado hookless cactus (<i>Sclerocactus glaucus</i>)	Listed as threatened. Typically found on rocky hills and alluvial benches in xeric fine-textured soils overlain with cobbles and pebbles. It grows in salt desert shrub and open pinyon-juniper communities at elevations ranging from approximately 4,500 to 6,600 feet.	Potential: No previously documented occurrences, however, Wheeler Gulch allotment contains some salt desert shrub potential habitat.
Ute ladies'-tresses (<i>Spiranthes diluvialis</i>)	Listed as threatened. Habitat for this threatened species is found below 6,500 feet along streams, lakes or in wetland areas with seasonally saturated or subirrigated soils.	Absent: A small perennial stream, Riley Gulch flows through Riley Gulch Comm allotment between 6,200 to 5,400 feet in elevation. However, the stream has very little herbaceous riparian vegetation or seasonally saturated soils.
Parachute penstemon (<i>Penstemon debilis</i>)	Listed as threatened. Endemic to steep, talus slopes on the southern escarpment of the Roan Plateau in Garfield County, Colorado. The plants are found only on the oil-shale rich Parachute Creek Member of the Green River Formation between 8,000 to 9,000 feet in elevation.	Potential: Small exposure of Green River Formation on Wheeler Gulch allotment on an extremely steep, narrow ridge.
DeBeque phacelia (<i>Phacelia submutica</i>)	Listed as threatened. A rare annual plant restricted to barren patches of shrink-swell clay of the Wasatch Formation between 5,000 to 6,200 feet in elevation in Mesa and Garfield Counties, Colorado.	Potential: No previously documented occurrences; however, Wheeler Gulch allotment contains some exposures of the Wasatch formation between 5,000 and 6,200 feet.

Table 3-4. Colorado BLM Sensitive Plant Species		
Species	Habitat	Occupied/Potential Habitat Present/Absent
DeBeque milkvetch (<i>Astragalus debequaeus</i>)	Found only on the Wasatch Formation in the vicinity of DeBeque and Rulison, Colorado. Plants are common on the Atwell Gulch Member of the Wasatch Formation but are rare elsewhere. Elevations of known populations are between 5,100 and 6,400 feet.	Potential: No previously documented occurrences; however, some Atwell Gulch Wasatch Formation exposed on these allotments.

Naturita milkvetch (<i>Astragalus naturitensis</i>)	Occurs on sandstone mesas, ledges, crevices, and slopes in pinyon-juniper woodlands at elevations from 5,000 to 7,000 feet. It grows in areas of shallow soils over exposed bedrock. Naturita milkvetch has been found in several locations on the western end of the CRVFO.	Absent: No sandstone rimrock or ledges present.
Cathedral Bluffs meadowrue (<i>Thalictrum heliophilum</i>)	Known from 18 occurrences in Garfield, Mesa and Rio Blanco Counties. The meadowrue is a narrowly endemic plant found in dry, shale barren communities between 6,200 and 8,800 feet in elevation.	Potential: Some dry, shale barren communities present on Wheeler Gulch allotment.
Piceance bladderpod (<i>Lesquerella parviflora</i>)	A Colorado endemic known only in Garfield, Mesa, and Rio Blanco Counties. It occurs on shale outcrops of the Green River Formation, on ledges and slopes of canyons in open areas at elevations ranging from 6,200 to 8,600 feet.	Potential: Small exposure of Green River Formation on Wheeler Gulch allotment on an extremely steep, narrow ridge.
Roan Cliffs blazing star (<i>Mentzelia rhizomata</i>)	Found only on steep talus slopes of the Green River Formation in Garfield County. The species occurs on eroding oil shale at elevations from 5,800 to 9,000 feet. In the GSFO, the Roan Cliffs blazing star is known to occur on the cliffs of the Roan Plateau, along Parachute Creek drainage and in Main Elk Creek, near New Castle, Colorado.	Potential: Known occurrences at mouth of Wheeler and further up Parachute Creek at junction of East, Middle and West Forks. Similar habitat in Wheeler Gulch allotment.
Harrington's penstemon (<i>Penstemon harringtonii</i>)	Open sagebrush communities on rocky loam or rocky clay loam soils between the elevations of 6,200 to 10,000 feet.	Absent: No suitable soils or open sagebrush habitat found.

There are no previously documented occurrences of any listed or sensitive plant species in Riley Gulch Com, Starkey Gulch or Wheeler Gulch allotments. Wheeler Gulch allotment appears to contain suitable habitat for a number of listed or sensitive plant species.

Environmental Effects

Proposed Action

Direct impacts of livestock grazing on special status plants may include trampling or removal of flowers or other vegetative parts. Grazing may result in direct mortality or reduction of reproductive potential. Indirect effects may include increased surface disturbance in concentrated livestock use areas that serve as a niche for the invasion of noxious weeds, may increase sedimentation, and may destroy habitat for pollinator species.

With the exception of the Colorado hookless cactus, the other special status species would occur on steep slopes which would attract little or no grazing by cattle. Wheeler Gulch is permitted for grazing to accommodate any incidental trespass grazing from the adjoining private lands to the south. Any livestock use in the allotment would be minimal and use on steep slopes would be negligible. Several surveys for natural gas well pads and roads in the suitable habitat area for cactus have not detected any individuals of the species so it is unlikely that the Colorado hookless cactus occurs in the allotment. The proposed grazing permit renewal would have “No Effect” on ESA-listed or BLM sensitive species.

No Grazing Alternative

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

plant material may still occur from wildlife grazing and noxious weeds may still become established from adjacent areas disturbed for oil and gas development.

Land Health Standard 4 for Threatened, Endangered and Sensitive Plant Species

No special status plants were documented within these allotments at the time of the Land Health Assessment, so Standard 4 for threatened, endangered and sensitive plants did not apply. Although potential habitat does exist for several of these species, there are no known occurrences and the proposed action would not result in a failure to meet this standard.

Plants: Vegetation

Affected Environment

Riley Gulch Allotment: The allotment consists of steep southeast and northwest facing slopes straddling Riley Gulch. Vegetation on southern slopes is primarily Utah juniper with a sparse understory; northern slopes are dominated by Utah serviceberry, roundleaf snowberry and other mesic shrubs. Douglas-fir occupies the upper elevations of north-facing drainages. Wyoming and basin big sagebrush are found on midslope benches and drainage bottoms. Riley Gulch is a perennial stream that supports scattered cottonwood trees.

Starkey Gulch Allotment: Most of the acreage of this allotment is private land. The BLM portion of the allotment consists of steep slopes straddling Starkey Gulch. Vegetation is similar to that described for the Riley Gulch allotment since these allotments are adjacent to each other, include similar topography and elevation. Both allotments have been developed for oil and gas and have a number of well pads and roads with early seral vegetation.

Wheeler Gulch Allotment: The Wheeler Gulch allotment consists of steep south and west facing slopes above Parachute Creek with a small amount of level ground at the toe slopes. The level ground is dominated by greasewood and cheatgrass. The lower slopes are occupied by sagebrush, saltbush, and greasewood. The upper slopes are dominated by mesic mountain shrubs.

Environmental Effects

Proposed Action

Riley Gulch Allotment: In allotment visits between 2002 and 2010, no livestock use was seen and very little use was evident on the allotment except in 2005. In that year, utilization levels were light to moderate, and overall vegetative condition looked good.

Starkey Gulch Allotment: In 2002, it was noted that most of the grazing use was occurring on the private land portion of the allotment with very little livestock use on public land. No livestock were seen in 2003, the last year for which an allotment inspection occurred.

Wheeler Gulch Allotment: In 2002 and 2003, livestock were located on private land and no use was noted on public land. The proposed action is likely to result in only incidental use of the Wheeler Gulch allotment as livestock may trail onto the allotment occasionally while they are grazing the adjacent private lands. Vegetative utilization should be slight to light.

Continuation of grazing at the current levels should continue to maintain plant health. The proposed periods of use should provide opportunities for regrowth and seed dissemination following grazing which would maintain plant health.

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. There would be a short-term increase in vegetative biomass without the presence of livestock to remove vegetative material. Without any removal of vegetative material by livestock, dead and dried stems and seed stalks may build up over time, resulting in less vegetative vigor and biomass in the long-term.

Land Health Standard 3 for Plant Communities

Riley Gulch, Starkey Gulch and the Wheeler Gulch allotments were all included in a formal land health assessment of the Rifle-West Landscape in 2005. The assessment determined that these allotments were meeting or marginally meeting Standard 3 for plant communities on a site-specific basis. Habitat loss and fragmentation at the landscape level resulted in a failure to meet Standard 3 for wildlife communities. Livestock grazing was not noted as a factor in the failure to meet the standard. Continuation of livestock grazing at the current levels should not result in a failure to meet Standard 3 for plant communities.

Social and 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 3-5

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, 2007)

Soils

Affected Environment

A review of the soil survey by the NRCS for the *Rifle Area, Colorado, Parts of Garfield and Mesa Counties* indicate four soil map units occur within these allotments (NRCS 1985). The NRCS soil map unit descriptions (NRCS 2011) are provided below:

Torriorthents-Rock outcrop complex (62) - is a highly variable map unit with Torriorthents soils being described as shallow and moderately deep with the rock outcrop unit being comprised of Mesa Verde sandstone and Wasatch shale with small pockets of limestone and exposed gypsum. Erosion hazards for this complex are moderate to severe depending on slope. Uses occurring on this complex are limited grazing, wildlife habitat (mule deer winter range), and recreation.

Torriorthents-Camborthids-Rock outcrop complex (66) - is a highly variable map unit. Torriorthents soils are described as shallow and moderately deep while Camborthids are shallow to deep soils. The rock outcrop is comprised of Mesa Verde sandstone and Wasatch shale with small pockets of limestone and exposed gypsum. Erosion hazards for this complex are moderate to severe depending on slope. This complex is used for grazing, wildlife habitat (mule deer winter range), and recreation.

Nihill Channery loam (47) - is a deep, well-drained soil found on alluvial fans and valley sides with 6-25% slopes. This soil is derived from Green River shale and sandstone parent material. Surface runoff is described as slow with a severe erosion hazard. Primary uses include wildlife habitat, grazing, limited haying, or limited community development.

Badland (9) - is a broadly defined map unit that is made up of steep and very steep barren lands. Roughly 85% of this unit is unvegetated making water erosion hazards very severe. Primary uses for this land are very limited grazing as well as limited value for wildlife escape cover.

Environmental Effects

Proposed Action

Grazing activities could result in direct soil compaction and displacement that increase the likelihood of erosional processes, especially on steep slopes and areas devoid of vegetation. Soil detachment and sediment transport are likely to occur during runoff events associated with spring snowmelt and short-duration high intensity thunderstorms. Indirect impacts include soil erosion and gullyng. Improper livestock grazing may cause substantial ground disturbance. Based on existing soil conditions and generally good vegetative cover; the likelihood of livestock grazing contributing to excessive soil degradation and transport to nearby drainages is not expected. Implementation of the proposed action is not anticipated to degrade soil health from current conditions.

No Grazing Alternative

Under this alternative, no livestock grazing would occur on these allotments 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 (i.e. roads, trails, oil and gas development) occurring within the allotment.

Land Health Standard 1 for Upland Soils

Based on the Rifle-West Land Health Assessment, BLM staff concluded that soils are meeting Standard 1 for healthy soils on a site by site basis (BLM 2005). However, across the watershed there were areas where accelerated soil erosion was identified. In particular, Riley Gulch has experienced accelerated soil erosion from adjacent roads. Road maintenance activities have pushed excess soil into the drainage channel. Runoff resulting from improperly placed culverts in Riley Gulch has also caused excess sediment flow into the channel.

Water Quality

Affected Environment

Wheeler Gulch, Riley Gulch and Starkey Gulch are intermittent drainages tributary to Parachute Creek then the Colorado River. Overland flow within the allotments is derived from both snowmelt and thunderstorm activity. Some overland flow is also directed into irrigation ditches which parallel Parachute Creek.

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

Table 3-6 Water Use Classifications:

Stream Segment Description	Classification
11h. Mainstem of Parachute Creek, including all tributaries and wetlands, from the confluence of the West and East Forks to the confluence with the Colorado River except for specific listings in segment 11g.	Aquatic life cold 2 Recreation P Agriculture

Aquatic life cold 2 are waters that are not capable of sustaining a wide variety of cold water biota, including sensitive species, due to physical habitat, water flows, or levels, or uncorrectable water quality conditions that result in substantial impairment of the abundance and diversity of species. Recreation P refers to stream segments in which surface waters are potentially used for primary contact. Agricultural waters are classified for agricultural uses, either livestock watering or crop irrigation.

Limited water quality data was collected by BLM staff during past land health assessments (Table 3-6). While these limited data do not show a violation of the water quality standards established to protect the classified uses, visual observations indicate accelerated erosion creating elevated sediment loading within the assessment area. Most serious problems were observed in Riley Gulch with sediment introduced from improperly installed or maintained culverts and road management associated with natural gas development. Some road improvements have been made in the recent past. However, the proximity of the roads, pads, and pipelines to Riley Gulch pose chronic sedimentation problems.

Table 3-7. Water Quality Data for Riley and Starkey Gulches.

Stream Name	Date	Flow (cfs)	Temp. (C)	Cond. (uS\cm)	pH
Riley Gulch-upper	4/16/2004	0.087	10.7	1184	8.4
Riley Gulch-near head	10/15/1998	Small pool	10.0	400	--
Riley Gulch-lower nr BLM boundary	4/16/2004	0.100	20.9	1372	8.65
Riley Gulch @ road crossing nr. Mouth	9/24/1998	Small pool	24.0	1580	--
Riley Gulch @ road crossing nr. Mouth	10/15/1998	Small pool	14.0	1220	--
Starkey Gulch @ road crossing nr mouth	9/24/1998	Small pool	20	920	--
Starkey Gulch @ road crossing nr mouth	10/15/1998	Small pool	12	780	--
Starkey Gulch-south fork	4/16/2004	dry	--	--	--

The State of Colorado has developed a *303(d) List of Water Quality Limited Segments Requiring TMDLS and Monitoring and Evaluation List* (CDPHE 2010b) that identifies stream segments that are not currently meeting water quality standards with technology based controls alone. None of the streams within the proposed action are listed for water quality impairments.

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. The proposed stocking rates and duration are not expected to have a negative effect on water quality. Any sediment that is produced in areas where livestock may congregate would likely be captured by the existing vegetative ground cover.

No Grazing Alternative

Under this alternative, no livestock grazing would occur on these allotments 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 (i.e. roads, trails, oil and gas development) occurring within the allotment and could potentially affect water quality.

Land Health Standard 5 for Water Quality

During the Rifle-West Land Health Assessment, BLM staff determined that site specific conditions related to grazing activity did not appear to be negatively impacting water quality (BLM 2005). Road encroachment was causing an increase in sediment and a decrease in the amount of riparian plant species resulting in a "Functioning at Risk" rating with a downward trend. This impact was caused by expanding development and roads on the lower end of Riley

Gulch. Implementation of the proposed action is not anticipated to degrade water quality from current conditions.

Wetlands and Riparian Zones

Affected Environment

Riparian areas exist along Riley Gulch and Starkey Gulch, and may be present in conjunction with springs/seeps throughout the allotments. It was determined that no riparian zones exist within the Wheeler Gulch Allotment. The results of the 2004 Proper Functioning Condition (PFC) assessment for riparian areas are shown below. The ratings are defined as follows: PFC = Properly functioning condition, FAR = Functioning-at-risk, NF = Not functioning. Up, NA (Not Apparent), and Down refer to the apparent trend in the condition of the riparian area.

Table 3-8: PFC Ratings

Riparian Name	Miles	2004 Rating				
		PFC	FAR UP	FAR NA	FAR Down	NF
Riley Gulch Lower	0.9				X	
Riley Gulch Upper	1.0	X				
Starkey Gulch S. Fk	0.3	X				

A PFC rating means most or all of the indicators (within the system's potential) have been met. The riparian area along the lower portion of Riley Gulch was determined not to be meeting land health standards for riparian condition. Road encroachment and natural gas development were identified as casual factors for increased sediment and a decrease in the amount of riparian plant species.

Environmental Effects

Proposed Action

Direct impacts of livestock grazing on riparian vegetation include defoliation of riparian plant species, trampling of riparian vegetation and soil compaction. Indirect impacts such as stream bank instability and sedimentation to surface water may also occur. The proposed action allows for a period of grazing rest throughout most of the growing season. This would allow for grazing rest and recovery time for riparian plant species, which could minimize potential adverse impacts.

No Grazing Alternative

Under this alternative, no livestock grazing would occur on these allotments and there would be no direct or indirect impacts to riparian areas from livestock use. Trampling or removal of riparian vegetation may still occur from wildlife grazing. In addition, soil disturbance and erosion may persist due to other surface disturbing activities (i.e. roads, trails, oil and gas development) occurring within the allotment and continue to impact riparian functionality.

Land Health Standard 2 for Riparian Systems

During the Rifle-West Land Health Assessment, BLM staff determined riparian areas throughout the proposed allotments are considered to be meeting standard 2, with the exception of lower Riley Gulch. Road encroachment was causing an increase in sediment and a decrease in the

amount of riparian plant species resulting in a “Functioning at Risk” rating with a downward trend. This impact was caused by expanding development and roads on the lower end of Riley Gulch. Implementation of the proposed action is not anticipated to degrade riparian systems from current conditions.

Wildlife: Aquatic / Fisheries (including Endangered, Threatened, or Sensitive)

Affected Environment

Fisheries potential is limited for all waters on these allotments due primarily to low seasonal flows, irrigation diversions, heavy sedimentation caused by flashy runoff and local geologic conditions. According to the best available records and field observations, no federal or state listed species occur within the allotments.

Habitat/riparian conditions are a concern for the lower sections of Riley Gulch. Riley Gulch has intensive natural gas development, and more specifically, poor quality roads and culverts adjacent to each stream, and increases in numbers of well pads, roads, and pipelines that are all contributing increased sediment.

Environmental Effects

Proposed Action

Maintaining the current number of animal unit months and periods of use, along with LHS and terms/conditions; should continue to maintain adequate aquatic habitat conditions (suitability and connectivity) to ensure aquatic species are maintained at viable population levels commensurate with the species and habitat's potential.

No Grazing Alternative

In the absence of livestock grazing, any competition for forage between livestock and aquatic wildlife would be eliminated, and the public land within the allotment would be available for exclusive use by wildlife, without disturbance by the presence of livestock. However other land uses potentially affecting aquatic wildlife could continue to occur.

Land Health Standard (LHS) 3 and 4 for Aquatic Wildlife Communities

The 2005 Rifle-West Land Health Assessment determination document concluded that livestock was not a significant factor in the failure to meet Standard 3 or 4 for aquatic wildlife on the allotments. The current habitat trends lead to a conclusion that the proposed action (continuation of current management) should have little bearing on the area's ability to continue to meet LHS for aquatic species.

Wildlife: Terrestrial –(inc. Migratory Birds; Endangered, Threatened, and Sensitive Species)

Affected Environment

The CRVFO supports a wide variety of terrestrial wildlife species that summer, winter, or migrate through the area. The habitat diversity provided by the broad expanses of sagebrush, mixed mountain shrub, aspen, pinyon-juniper woodlands, other types of coniferous forests, and riparian/wetland areas support many species. The current condition of wildlife habitats varies across the landscape. Some habitat is altered by power lines, pipelines, fences, public recreation use, residential and commercial development, vegetative treatments, livestock and wild ungulate

grazing, oil and gas development, and roads/trails. These factors have contributed to some degradation/fragmentation of habitat as well as causing disturbance to some species.

Mammals: Numerous small mammals reside within the planning area, including ground squirrels (*Spermophilus* spp.), chipmunks (*Neotamias* spp.), rabbits (*Sylvilagus* spp.), skunks (*Mephitis mephitis*), and raccoons (*Procyon lotor*). Many of these small mammals provide the main prey for raptors and larger carnivores. These species are most likely to occur along the drainages, near the margins of dense oakbrush, in pinyon-juniper woodland, or in the small area of aspen and spruce/fir. Larger carnivores expected to occur include the bobcat (*Lynx rufus*) and the coyote (*Canis latrans*). Black bears (*Ursus americanus*) make use of oaks and the associated chokecherries and serviceberries for cover and food, while mountain lions (*Felis concolor*) are likely to occur during seasons when mule deer (*Odocoileus hemionus*) are present.

Big Game: The mule deer (*Odocoileus hemionus*) is a recreationally important species that is common throughout suitable habitats in the region. Another recreationally important big game ungulate (hoofed animal), the Rocky Mountain elk (*Cervus elaphus nelsonii*), is also present. Mule deer and elk usually occupy higher elevations, forested habitat, during the summer and then migrate to sagebrush-dominant ridges and south-facing slopes at lower elevation in the winter. BLM lands provide a large portion of the undeveloped winter range available to deer and elk. The CRVFO's RMP allocated existing forage proportionately to livestock and big game, the criterion being active preference for livestock and 5-year average demand for big game.

Reptiles and Amphibians: Reptile species most likely to occur in the project area include the western fence lizard (*Sceloporus undulatus*) and gopher snake (bullsnake) (*Pituophis catenifer*) in xeric shrublands or grassy clearings and the western terrestrial garter snake (*Thamnophis elegans*) along creeks/riparian areas. Other reptiles potentially present along creeks, although more commonly found at lower elevations than the site, are the milk snake (*Lampropeltis triangulum*) and smooth green snake (*Opheodrys vernalis*).

Resident Raptors and Other Birds: Birds of prey (eagles, falcons, hawks, and owls) may migrate through the area or nest in cottonwoods, conifers, or very tall oaks, while the numerous songbirds and small mammal populations provide the primary prey base. Common raptor species in the CRVFO include the: red-tailed hawk (*Buteo jamaicensis*), golden eagle (*Aquila chrysaetos*) American kestrel (*Falco sparverius*), great horned owl (*Bubo virginianus*), Cooper's hawk (*Accipiter cooperii*), and sharp-shinned hawk (*A. striatus*).

Passerine (perching) birds commonly found in the area include the: American robin (*Turdus migratorius*), pinyon jay (*Gymnorhinus cyanocephalus*) western scrub-jay (*Aphelocoma californica*), and black-billed magpie (*Pica pica*). Two gallinaceous species, the wild turkey (*Meleagris gallopavo*) and the Dusky grouse (*Dendragapus obscurus*), are found throughout the CRVFO.

Numerous streams, rivers, reservoirs, ponds, and associated riparian vegetation provide habitat for a wide variety of waterfowl and shorebirds. Common species include: great blue herons (*Ardea Herodias*), Canada geese (*Branta canadensis*), mallards (*Anas platyrhynchos*), pintails (*A. acuta*), gadwalls (*A. strepera*), and American wigeon (*A. americana*) are common.

Migratory Birds: The CRVFO planning area provides both foraging and nesting habitat for a variety of migratory birds that summer, winter, or migrate through the area. 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 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 1988 amendment to the Fish and Wildlife Conservation Act mandates the 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*” (USFWS 2008) is the most recent effort to carry out this mandate. The CRVFO is within the Southern Rockies/Colorado Plateau Bird Conservation Region (BCR). The 2008 list of Birds of Conservation Concern potentially present, and not discussed above, are described in Table 3-8.

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 was 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.

Table 3-9 2008 List of Birds of Conservation Concern within the CRVFO.

Species	Habitat Description Summaries	Potential Occurrences in Project Area	Potentially Impacted
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Bald eagles were removed from the federal threatened and endangered species list in 2007 but are still protected under the MBTA. Bald eagles occasionally summer in this region but usually winter (mid-Nov. to mid-April) along portions of the Colorado, Eagle and Roaring Fork Rivers and their major tributaries. Large mature cottonwood trees along the rivers and their major tributaries are used as roosting and perching sites, and these waterways provide the main food sources of fish and waterfowl. Upland habitats adjacent to these waterways are used as scavenging areas.	Irregular	No

Species	Habitat Description Summaries	Potential Occurrences in Project Area	Potentially Impacted
Ferruginous Hawk (<i>Buteo regalis</i>)	Open, rolling and/or rugged terrain in grasslands and shrubsteppe communities; also grasslands and cultivated fields; nests on cliffs and rocky outcrops. Fall/winter resident, non-breeding.	Unlikely	No
Golden Eagle (<i>Aquila chrysaetos</i>)	Open country, grasslands, woodlands, and barren areas in hilly or mountainous terrain; nests on rocky outcrops or large trees. Year-round resident, breeding.	Present	No
Peregrine Falcon (<i>Falco peregrines</i>)	Open country near cliff habitat, often near water such as rivers, lakes, and marshes; nests on ledges or holes on cliff faces and crags. Spring/summer resident, breeding.	Unlikely	No
Pinyon Jay (<i>Gymnorhinus cyanocephalus</i>)	Common to abundant resident of pinyon-juniper woodlands. Year-round resident that travels broadly in flocks.	Present	No
Juniper Titmouse (<i>Baeolophus ridgwayi</i>)	Pinyon-juniper woodlands, especially juniper; nests in tree cavities. Year-round resident, breeding.	Present	No

Special Status Terrestrial Wildlife Species: Table 3-9 summarizes the latest: 1) species list (USFWS 2010) from the U. S. Fish and Wildlife Service for Federally listed, proposed, or candidate terrestrial wildlife species and 2) Colorado BLM State Director's Sensitive Species List (BLM 2009) for terrestrial species; that may occur within the CRVFO and be impacted by the proposed action.

Table 3-10 Special Status Terrestrial Wildlife Species.

Federally Listed, Proposed or Candidate Terrestrial Wildlife Species		
No Federally listed species potentially impacted.		
Colorado BLM Sensitive Terrestrial Wildlife Species		
Species	Habitat/Range Summaries	Occurrence/ Potentially Impacted
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) and Fringed myotis (<i>Myotis thysanodes</i>)	Occur as scattered populations at moderate elevations on the western slope of Colorado. Habitat associations are not well defined. Both bats will forage over water and along the edge of vegetation for aerial insects. These bats commonly roost in caves, rock crevices, mines, buildings or tree cavities. Both species are widely distributed and usually occur in small groups. Townsend's big-eared bat is not very abundant anywhere in its range. This is attributed to patchy distribution and limited availability of suitable roosting habitat (Gruver, J.C. and D.A. Keinath 2006).	Possible /No
Brewer's sparrow (<i>Spizella berweri</i>)	Neotropical migrant that summers in western Colorado mountain parks and spring/fall migrant at lower elevations. A sagebrush shrubland obligate with an apparently secure conservation status in Colorado.	Possible /Yes
American Peregrine Falcon (<i>Falco peregrines anatum</i>)	Rare spring and fall migrant in western valleys. Peregrine falcons inhabit open spaces associated with high cliffs and bluffs overlooking rivers. The falcon nests on high cliffs and forages over nearby woodlands.	Possible /No

Environmental Effects

Proposed Action

Livestock grazing can alter vegetation structure, composition, and function. On the other hand, livestock grazing can have a beneficial effect on forage quality by removing the rough or dried seedheads and stems, while leaving or creating the more palatable leaves for deer or elk to graze later in the season. Effects on terrestrial wildlife are dependent on the species of interest and may be adverse or beneficial depending on grazing numbers, timing, frequency, and intensity. Since the livestock AUMs authorized are estimated to remove 50% or less of the annual vegetative component - thereby leaving no less than 50% of the vegetative resource for use by wildlife - the proposed action would provide for adequate amounts of herbaceous vegetation necessary to continue to meet the needs of the various terrestrial wildlife species.

Grazing at up to 50% of current year's growth would be expected to maintain vertical and horizontal vegetative structure and complexity where it presently exists. The proposed periods of use would allow for herbaceous and woody plant recovery and regrowth following defoliation in the spring. No current issues between terrestrial wildlife and grazing are known. It is unlikely that the proposed action would influence terrestrial wildlife populations locally or on a landscape level. Also see the vegetation and riparian sections.

Routine maintenance of fences, waters and other livestock operations should not negatively impact terrestrial wildlife or their habitats over the ten-year term of the permits. Such activities would be short term in duration and localized and would not result in new surface disturbances or loss of habitat.

No Grazing Alternative

In the absence of livestock grazing, any competition for forage between livestock and terrestrial wildlife would be eliminated, and the public land within the allotment would be available for exclusive use by wildlife, without disturbance by the presence of livestock. However other land uses or authorizations affecting wildlife would continue to occur. Since the proposed action only affects public lands, fenced private lands could see an increase in livestock use to make up for the loss cattle forage.

Land Health Standard 3 and 4 for Terrestrial Wildlife Communities

The 2005 Rifle-West Land Health Assessment determination document noted that all the allotments were meeting LHS 3 and 4 for terrestrial wildlife. The 2005 Rifle-West Land Health Assessment noted that the main concern with wildlife and wildlife habitats in these allotments is the proliferation of intensive natural gas exploration and development, not livestock grazing. The assessment also noted some evidence of moderate hedging on browse species was observed in smaller patches on Riley Gulch allotment. This wildlife hedging combined with the drought and other stress factors, was a contributing factor in the decadence and lack of recruitment in sagebrush communities.

Renewal of the same number/kind of livestock, period of use, percent public land and AUMs as the current livestock grazing permit would likely result in maintaining the current ecological condition of the allotments. The current habitat trends lead to a conclusion that the proposed action (continuation of current management) should have little bearing on the area's ability to continue to meet LHSs for terrestrial wildlife species.

CUMULATIVE EFFECTS SUMMARY:

Wildlife (including Special Status Species). The area covered by the proposed action only comprises a small portion of the watershed. Many other land use activities (e.g., recreation, gas development, road construction/maintenance) occur within the allotment boundaries and the watershed. All of these activities have altered the amount of suitable and potentially suitable habitats for terrestrial wildlife species. 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 comparison with those activities currently occurring and reasonably certain to occur on adjacent private/other lands.

Soil and Water. Cumulative impacts to soil and water resources can occur from existing roads and trails throughout the allotments. Additionally, natural gas development, which includes road construction/maintenance, pads and pipelines on BLM lands and adjacent private lands have both direct and indirect effects to soil and water resources. Any surface disturbance that causes a loss of vegetation and surface compaction 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 land management activities occurring across the allotment and on adjacent public and private land, it is assumed that cumulative effects from natural gas development are contributing to riparian areas on Riley Gulch to be functioning at risk with a downward trend.

RESIDUAL EFFECTS AFTER MITIGATION MEASURES HAVE BEEN APPLIED:

None

4. 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

5. List of Preparers

Members of the CRVFO Interdisciplinary Team who participated in the impact analysis of the Proposed Action, development of appropriate mitigation measures, and preparation of this EA are listed in Table 5-1, along with their areas of responsibility.

<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Isaac Pittman	Rangeland Management Specialist	NEPA Lead, Range Management
Pauline Adams	Hydrologist	Air Quality, Water Quality, Soil, Wetlands & Riparian Zones

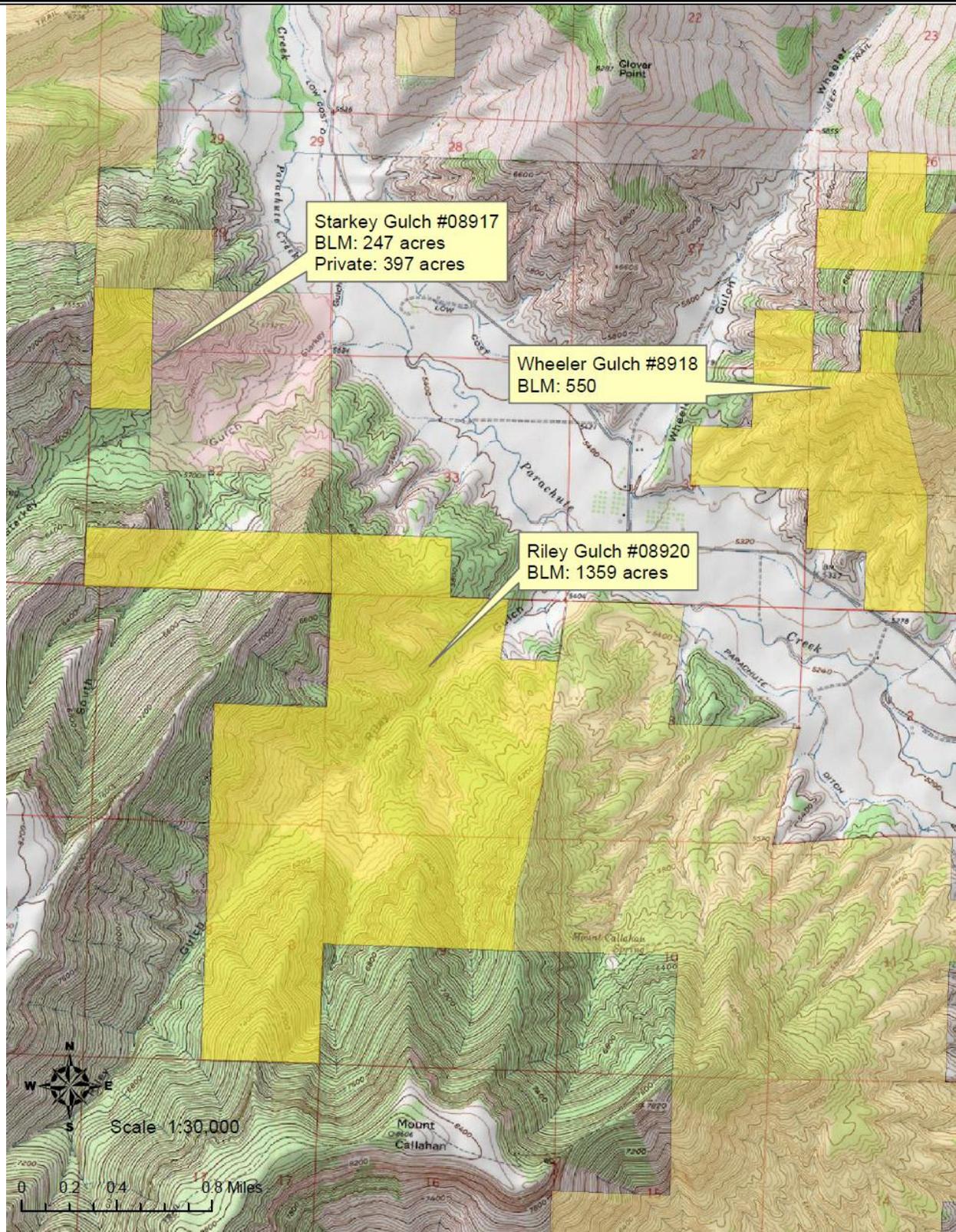
Table 5-1 BLM Interdisciplinary Team Authors and Reviewers		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Carla DeYoung	Ecologist	ACEC, Vegetation, T/E/S Plants, Land Health Standards
Greg Wolfgang	Outdoor Recreation Planner	VRM, Recreation, Travel Management
Kimberly Miller	Outdoor Recreation Planner	WSR, Wilderness, Recreation
Erin Leifeld	Archaeologist	Cultural Resources and Native American Concerns
Brian Hopkins	Wildlife Biologist	Migratory Birds, Terrestrial Wildlife and T/E/S Terrestrial Wildlife, Aquatic Wildlife and T/E/S Aquatic Wildlife
Monte Senor	Rangeland Management Specialist	Invasive, Non-native Species
John Russell	NEPA Planner	NEPA

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Appendix – Grazing Allotments Map



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 Wheeler Gulch, Riley Gulch, and Starkey Gulch Allotments

DOI-BLM-N040-2012-0002-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 Wheeler Gulch, Riley Gulch, and Starkey Gulch Allotments. 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 Consequences 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.

No unique characteristics occur in the allotment.

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 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 Wheeler Gulch, Riley Gulch, and Starkey Gulch 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.

Within these three allotments, there is potential for encountering historic sites based on historic GLO maps. Areas that have potential to contain historic sites have largely been surveyed by previous cultural resource inventories and no historic properties were identified relating to the historic GLO records.

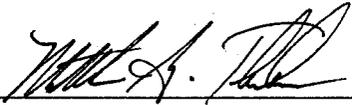
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

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

1-30-2012

Date