



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Colorado River Valley Field Office  
2300 River Frontage Road  
Silt, Colorado 81652  
[www.co.blm.gov](http://www.co.blm.gov)



## ENVIRONMENTAL ASSESSMENT

### 1. Introduction

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**NUMBER:** DOI-BLM-CO-040-2012-0007 EA

**CASEFILE NUMBER:** 0507667

**PROJECT NAME:** Grazing Permit Renewal on the Canyon Ck (08228) Allotment

**LOCATION:** Garfield County, Northeast of New Castle, CO

**LEGAL DESCRIPTIONS:** T5S 90W Sec 1, 2, and 12 (see attached allotment 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. 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**

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### **DESCRIPTION OF PROPOSED ACTION:**

The Proposed Action is to renew a term grazing permit. The period of use, percent public land and Animal Unit Months (AUMs) will remain the same as the previous permit. The livestock kind will change from yearlings to cattle. The revised permit will allow grazing of 34 cattle instead of 48 yearlings. The timing and duration of grazing will remain the same. 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.

### **Mandatory Terms and Conditions Scheduled Grazing Use:**

**Table 2-1**

<b>Allotment Name &amp; No.</b>	<b>Livestock No. &amp; Kind</b>	<b>Period of use</b>	<b>Percent Public Land</b>	<b>AUMs</b>
Canyon Ck #08228	34 Cattle	8/1 – 9/15	100	51

### **Grazing Preference AUMs:**

**Table 2-2**

<b>Allotment Name &amp; No.</b>	<b>Active</b>	<b>Suspended</b>	<b>Total</b>
Canyon Ck #08228	51	0	51

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. Use different than that shown above must be applied for in advance.
- 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:**

No other grazing use is authorized on this allotment. A review of recent billings indicates that the allotment is being fully utilized.

#### **NO GRAZING ALTERNATIVE:**

Under this alternative the grazing permit described in the Proposed Action would not be reissued. As a result, no grazing would be authorized on the Canyon Creek allotment. This alternative would initiate the process in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on the allotments and devote the land to some other purpose. This alternative would result in amendments to the resource management plan.

#### **ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL:**

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

#### **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 June 2007 - 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.”

### **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 Canyon Creek allotment (#8228) was included in a formal land health assessment of the Elk Creek Watershed in 2007. The assessment determined that the allotment was meeting all the Standards for Public Land Health at the time of the assessment. Certain issues were noted related to a caterpillar infestation that was defoliating much of the Gambel oak stand in the allotment and an infestation of the noxious weed, sulfur cinquefoil, that was discovered subsequent to the assessment. Neither of these disturbances created an impact sufficient to cause the allotment to fail to meet Standard 3 for healthy plant communities.

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.

### **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

### **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 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	
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
Socio-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#1012-6) was completed for the Canyon Creek allotment on November 7, 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 Canyon Creek #08228 allotment 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)
Canyon Creek #08228	124.3	603.4	17%	0	No	No additional inventory, no properties to be visited

One cultural resource inventory (CRVFO# 591) has been previously conducted within the Canyon Creek Allotment #08228 resulting in the survey coverage of 124.3 acres at a Class III level. No cultural resources were discovered during inventory. Looking at the General Land Office (GLO) Patents from 1893, indicated there is potential for historic sites along a historic road called “Country Road” and near the south end of the allotment where historic cabins are indicated but are now on private lands. A portion of this historic road area was surveyed and there was no indication of historic properties recorded. No areas were identified for cultural resource inventory in the previous environmental analysis.

### 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 gullyng, 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 livestock kind proposed in this alternative will not change ground disturbing impacts to cultural resource because the total AUMs as well as timing and duration will stay the same. 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.

A small portion of the allotment in the area of the historic road totaling 17 acres is recommended to be surveyed within the term of this permit. The remaining unsurveyed area has low potential for archaeological sites as it contains steep slopes where archaeological sites are limited. No sites have been previously recorded within the allotment and therefore no sites need to be monitored.

#### *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 this allotment 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 allotment. 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 Measures*

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 Management**

### Affected Environment

The Canyon Creek allotment consists of 728 acres of public land ranging in elevation from 6400-10000 feet. The allotment consists of very steep east and west-facing slopes on either side of Canyon Creek with a small amount of moderately level terrain adjacent to the creek. Vegetation on the slopes is dominated by Gambel oak, Aspen and Douglas-fir forest and is in good ecological condition. The riparian area along Canyon Creek has a patchy overstory of Colorado blue spruce with some open areas dominated by willows and Kentucky bluegrass. The moderately level terrain at the lower end of the allotment adjacent to the riparian area is dominated by sulfur cinquefoil (a noxious weed) and orchard grass. Much of the Canyon Creek allotment is steep and covered in dense oakbrush stands. Most of the grazing occurs in a brushy “bowl” at the upper end of the allotment and on the few acres of level terrain adjacent to the creek at the lower end of the allotment. Cattle are usually driven up to the upper bowl at the beginning of the grazing period and then allowed to drift back down to the lower end of the allotment. The allotment is grazed from August 1 to September 15 which is after perennial plants have already set seed and should generally provide for maintenance of plant health. There is no public access to the allotment.

### 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 and would be focused around water sources.

#### *No Grazing Alternative*

Under this alternative this grazing permit would not be renewed. Cancelling grazing use on this allotment may result in economic harm to the permittee. The permittee 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. 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 Canyon Creek Allotment. However, it is known that a sulfur cinquefoil 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.

**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 the Garfield County and be impacted by the proposed action.

Table 3-3. Threatened, Endangered, and Sensitive Plant Species in Garfield County

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.	<b>Absent:</b> No potential habitat in Canyon Creek allotment.
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.	<b>Absent:</b> A small perennial stream, Canyon Creek flows through the allotment. Although the lower elevations are below 6,500 feet, the riparian area is dominated by Colorado blue spruce which is not habitat for the orchid.

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.	<b>Absent:</b> No Green River Formation exposures in Canyon Creek allotment.
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.	<b>Absent:</b> No Wasatch Formation exposures in the Canyon Creek allotment. Most of allotment is dense Gambel oak.
<b>Colorado BLM Sensitive Plant Species</b>		
<b>Species</b>	<b>Habitat</b>	<b>Occupied/Potential Habitat Present/Absent</b>
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.	<b>Absent:</b> No Atwell Gulch Wasatch Formation exposed on the Canyon Creek allotment.
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.	<b>Absent:</b> 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.	<b>Absent:</b> No dry, shale barren communities present on the allotment. Allotment is heavily vegetated.
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.	<b>Absent:</b> No exposures of Green River Formation on the allotment.
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.	<b>Absent:</b> No green River Formation exposures on the 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.	<b>Absent:</b> No suitable soils or open sagebrush habitat found.

There are no previously documented occurrences of any listed or sensitive plant species in the Canyon Creek allotment and no potential habitat exists in the area.

## Environmental Effects

### *Proposed Action*

Due to the absence of any occupied or potential habitat for special status plants on the Canyon Creek allotment, the renewal of the livestock grazing permit would have “No Effect” on these species.

### *No Grazing*

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.

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

No special status plants have been documented on the Canyon Creek allotment and no potential habitat has been identified there. The proposed action would have no impact on Standard 4 for Threatened, Endangered and Sensitive Plants.

## **Plants: Vegetation**

### Affected Environment

The Canyon Creek allotment contains approximately 730 acres of public land. The allotment consists of very steep east and west-facing slopes on either side of Canyon Creek with a small amount of moderately level terrain adjacent to the creek. Vegetation on the slopes is dominated by Gambel oak, aspen and Douglas-fir forest and is in good ecological condition. The riparian area along Canyon Creek has a patchy overstory of Colorado blue spruce with some open areas dominated by willows and Kentucky bluegrass. The moderately level terrain at the lower end of the allotment adjacent to the riparian area is dominated by sulfur cinquefoil (a noxious weed) and orchard grass.

### Environmental Effects

#### *Proposed Action*

Livestock grazing removes vegetative biomass. 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 reduce plant vigor or cause plant mortality by reducing root reserves, change the species’ composition in favor of less palatable plant species and can create surface disturbance and bare ground that serves as a niche for the invasion of noxious weeds.

Much of the Canyon Creek allotment is steep and covered in dense oakbrush stands. Most of the grazing occurs in a brushy “bowl” at the upper end of the allotment and on the few acres of level terrain adjacent to the creek at the lower end of the allotment. Cattle are usually driven up to the upper bowl at the beginning of the grazing period and then allowed to drift back down to the lower end of the allotment. The allotment is grazed from August 1 to September 15 which is after perennial plants have already set seed and should generally provide for maintenance of plant health. The area adjacent to Canyon Creek is dominated by sulfur cinquefoil, a noxious weed, and orchard grass, an aggressive, non-native species. This may be due in part to livestock grazing as the yearlings tend to drift down to the lower fence and remain there for most of the grazing period. Changing the class of livestock from yearlings to cattle should help to improve grazing distribution because cows/calves are less apt to hang out in one area for the entire

grazing period. In addition, the current grazing permit has terms and conditions that limit the amount of utilization to no more than 50% of current year's growth. Adhering to these utilization limits should maintain plant health and these conditions will be applied to the new permit.

*No Grazing*

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. Without 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.

Without livestock grazing, there would be less surface disturbance due to trampling and removal of vegetation and therefore, less risk of noxious weed invasion. Wind, wildlife and vehicular traffic would continue to distribute weed seeds and contribute to weed expansion.

Land Health Standard 3 for Plant Communities

The 2007 Land Health Evaluation and Determination Document for the Canyon Creek allotment concluded that the allotment as a whole was meeting Land Health Standard 3 for plant communities. Although the flatter terrain immediately north of the private land has the appearance of overgrazing and has an infestation of noxious weeds, this area serves as a concentration area for livestock as it is just north of the allotment fence and it represents only a small portion of the entire allotment. Changing the class of livestock from yearlings to cows should help to maintain or improve land health conditions by promoting better livestock distribution.

**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 3-5

<b>Local Counties</b>	<b>Median Household Income (2010 US Census)</b>
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 the Canyon Creek allotment (NRCS 1985). According to the NRCS soil map unit descriptions (NRCS 2011), a brief soil description is provided below:

**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.

**Farlow-Rock outcrop association (26)** – This soil map unit is found on mountainsides at elevations ranging from 8,000 to 10,500 feet and on steep slopes. Approximately 65 percent of the unit is Farlow soil and 25 percent Rock outcrop. The remainder of the map unit consists of Dateman soils. The Farlow soil is deep, well drained and has rapid surface runoff with moderate erosion hazard. The Rock outcrop portion of this unit is limestone. Primary uses for this soil map unit include limited grazing and wildlife habitat.

**Lamphier loam (42)** – This deep, well drained soil is found on fans and mountainsides at elevations ranging from 7,500 to 10,000 feet and on slopes of 15 to 50 percent. This soil is derived from sandstone and shale rocks. Surface runoff for this soil is slow and the erosion hazard is classified as slight. Primary uses for this soil include grazing, wildlife habitat, and recreation.

**Torrifluvents (65)** – This broadly defined unit consists of deep, well drained to poorly drained soils that occur on floodplains and along drainageways on slopes of 0 to 6 percent. These soils form in alluvium and range from loamy sand to clay loam in the surface layers and from sandy loam to cobbles in underlying layers. As a result of the low slope angles on which these soils occur; erosion hazard is low. Primary uses for this unit include wildlife habitat, recreation, and grazing.

Soil health was evaluated in 2007 during the Elk Creek Land Health Assessment. BLM staff concluded that soils were meeting land health standards throughout the Canyon Creek allotment, with only slight departures from expected conditions (BLM 2007).

### Environmental Effects

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 gullying. 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. Changing the class of livestock from yearlings to cows may help to maintain or improve land health conditions by promoting better livestock distribution. Allowing for adaptive management may also provide for better protection of soil and upland vegetation conditions.

*No Grazing Alternative:*

Stream Name	Date (mm/dd/yr)	Discharge (cfs)	Temp. (C)	pH	Cond. (µS/cm)	Hardness (mg/L)	Phenol Alkalinity (mg/L)	Total Alkalinity (mg/L)
Canyon Creek (below diversion)	05/30/2007	-	4.1	8.1	218	140	0	160

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.

*Land Health Standard 1 for Upland Soils*

Based on the Elk Creek Land Health Assessment, BLM staff concluded that soils are meeting Standard 1 (BLM 2007). Implementation of the proposed action is not anticipated to degrade soil health from current conditions.

**Water Quality**

Affected Environment

Approximately 1.5 miles of Canyon Creek flows through the allotment. Canyon Creek is a high gradient stream, confined in its upper reaches, while in its lower reaches the gradient lessens and floodplain and terrace features can be observed. Some lateral migration is occurring with minor bank failures and some point bar development has been observed. Overall the channel appears to be vertically and laterally stable. Canyon Creek contains a healthy riparian community and is directly tributary to the Colorado River. USGS operated a gaging station on Canyon Creek from 1954 -1960. Those data showed the highest flow, generally exceeding 500 cfs, occurred in May and June, while low flow occurred in August and September presumably from irrigation withdrawal. BLM collected a few water quality samples in the early 1980s. Review of those data indicate very good water quality. The table below shows the sampling parameters that were collected on Canyon Creek as part of the 2007 Elk Creek Land Health Assessment, which also indicate good water quality.

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). Canyon Creek is listed under the Lower Colorado River Basin (Region 11) and have water use classifications described below:

Stream Segment Description	Classifications
7a. Mainstem of Mitchell, Canyon, Elk, Garfield, Beaver, and Cache Creeks, including all tributaries and wetlands, from the boundary of the White River National Forest to their confluences with the Colorado River.	Aquatic Life Cold 1 Recreation 1a Water Supply Agriculture

Aquatic life cold 1 indicates that a stream segment is capable of sustaining a wide variety of cold water biota. Recreation 1a refers to stream segments in which primary contact recreation is presumed to be present. 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* (CDPHE 2010b) that identifies stream segments that are not currently meeting water quality standards with technology based controls alone. Canyon Creek is not specifically listed for water quality impairments. However, Canyon Creek is directly tributary to the Lower Colorado River Basin segment COLCLC01 that includes the Colorado River from the Roaring Fork River to Rifle Creek, which is listed as impaired due to sediment.

### 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 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 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 Standard 5 for Water Quality*

Based on the Elk Creek Land Health Assessment, BLM staff concluded that water quality is meeting Standard 5 (BLM 2007). Implementation of the proposed action is not anticipated to degrade water quality from current conditions.

## **Wetlands and Riparian Zones**

### Affected Environment

Riparian vegetation exists along Canyon Creek and in conjunction with two springs in the allotment. Riparian vegetation consists of narrowleaf cottonwood, alder, chokecherry, dogwood, willows, and some herbaceous riparian species. The creek flows through a broad and steep canyon with steep walls, which likely limits grazing use along most of the streamside vegetation. In 2007 as part of the Elk Creek Land Health Assessment, a 1.5 mile stream reach on Canyon Creek was assessed for properly functioning riparian condition. BLM staff determined that the

entire reach on Canyon Creek was Properly Functioning Condition (PFC) (BLM 2007). A PFC rating means most or all of the indicators, within the system's potential, have been met.

### 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 allotment is grazed from August 1 to September 15 which tends to be after perennial plants have already set seed and should generally provide for maintenance of riparian plant health. Changing the class of livestock from yearlings to cows may improve grazing distribution. Allowing for adaptive management may also provide for better protection of riparian 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 riparian vegetation from livestock. Trampling or removal of riparian vegetation may still occur from wildlife grazing. In addition, riparian functionality may be affected by existing roads and trails that exist throughout the allotment, which can be sources of sedimentation to riparian areas.

#### *Land Health Standard 2 for Riparian Systems*

During the 2007 Elk Creek Land Health Assessment, BLM staff determined riparian areas throughout the proposed allotment are meeting land health standard 2. Implementation of the proposed action is not anticipated to degrade riparian vegetation from current conditions.

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

### Affected Environment

This allotment contains perennial waters, Canyon Creek. The stream contains a variety of non-native trout.

### Environmental Effects

#### *Proposed Action*

Maintaining the current number of animal unit months and periods of use, along with application of proposed terms/conditions; should continue to maintain the current aquatic habitat conditions. Current aquatic habitat conditions are adequate in both suitability and connectivity to ensure aquatic species are maintained at viable population levels commensurate with the species potential and habitat potential.

#### *No Grazing Alternative*

In the absence of livestock grazing, any competition for forage between livestock and 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 aquatic wildlife and riparian vegetation would continue to occur. Since the proposed action only affects public lands, fenced private lands could see an increase in use to make up for the loss cattle forage.

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

The 2007 evaluation and determination document for the Canyon Creek allotment concluded that the allotment was meeting LHSs and livestock was not negatively affecting Standard 3 or 4 for aquatic wildlife. 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 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 CRVFO, 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 are 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*), 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 2009) 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 3-4.

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.

**Table 3-4 - Birds of Conservation Concern Potentially Present.**

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
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
Willow Flycatcher ( <i>Empidonax traillii</i> )	Riparian and moist, shrubby areas; winters in shrubby openings with short vegetation. Summer resident, breeding.	Not Present	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
Brown-capped Rosy-Finch ( <i>Leucosticte australis</i> )	Alpine meadows, cliffs, and talus and high-elevation parks and valleys. Summer resident, breeding.	Not Present	No
Cassin's Finch ( <i>Carpodacus cassinii</i> ).	Open montane coniferous forests; breeds/ nests in coniferous forests. Year-round resident, breeding.	Not Present	No

*Special Status Terrestrial Wildlife Species.* Table 3-5 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 3-5 Special Status Terrestrial Wildlife Species Potentially Present.**

Federally Listed, Proposed or Candidate Terrestrial Wildlife Species		
Species	Habitat/Range	Occurrence/ Potentially Impacted by the Proposed Action or Alternatives
None Present	No known occupied or suitable habitat	
Colorado BLM Sensitive Terrestrial Wildlife Species		

Federally Listed, Proposed or Candidate Terrestrial Wildlife Species		
Species	Habitat/Range	Occurrence/ Potentially Impacted by the Proposed Action or Alternatives
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 of these bats will forage over water and along the edge of vegetation for aerial insects. Although they commonly roost in caves, rock crevices, mines, or buildings, they also may roost in 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 and this is attributed to patchy distribution and limited availability of suitable roosting habitat (Gruver, J.C. and D.A. Keinath 2006).	Possibly Present/ No
Northern goshawk ( <i>Accipiter gentilis</i> )	The goshawk is an uncommon resident in foothills and mountains and occasional in migration and winter at lower elevations. Predominantly uses mature stands of aspen, and pines (ponderosa and lodgepole). Goshawks prey on small-medium sized birds and mammals. It breeds in coniferous deciduous and mixed forests. The nest is typically located on a northerly aspect in a drainage or canyon and is often near a stream. Nest areas contain one or more stands of large, old trees with a dense canopy cover. A goshawk pair occupies its nest area from March until late September. The nest area is the center of all movements and behaviors associated with breeding from courtship through fledging.	Possibly Present/ No

### **Environmental Effects**

#### *Proposed Action*

Livestock grazing can alter vegetation structure, composition, and function. Losses or decreases in vegetation from overgrazing can decrease rodent prey species and affect local populations of raptors and predatory mammals. Trampling of nests, eggs, or young could occur. 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 and their prey 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 period of use (8/1 – 9/15) would allow for herbaceous and woody plants to seed and recover.

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 affecting wildlife would continue to occur. Since this action only affects public lands, fenced private lands could see an increase in use to make up for the loss cattle forage.

#### *Land Health Standard 3 and 4 for Terrestrial Wildlife Communities*

The 2007 evaluation and determination document for the Canyon Creek allotment concluded that the allotment was meeting LHSs and livestock was not negatively affecting the achievement of Standard 3 or 4 for terrestrial wildlife. 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 conjunction with those activities currently occurring and reasonably certain to occur on adjacent private/other lands.

**Vegetation.** Cumulative impacts to vegetation can occur from a wide range of land use activities and natural disturbances. The watershed that encompasses Canyon Creek, Keyser Creek and Possum Creek consists of large swaths of private lands intermingled with public lands. Except for a few ranchettes and houses in the lower part of Canyon Creek drainage, the private lands are largely undeveloped with only a few roads and trails. The public lands also have very limited roads with access only through private property or via a long, rough, 4WD route across National Forest lands. The greatest impact to vegetation in this watershed has been as a result of wildfire. Both the Storm King (South Canyon) Fire in 1994 and the Coal Seam Fire in 2002 burned the southeast portion of the watershed. In 2006, the New Castle Fire burned the southwestern portion of the watershed. All three fires burned with moderate to high intensity, killing the trees and top-killing the shrubs. Gambel oak, the predominant shrub, sprouted vigorously following these fires, increased in stem density and has regained most of its former height. Herbaceous vegetation on the South Canyon and Coal Seam fires is dominated by perennial grasses, but with some increase in cheatgrass following the fires. Herbaceous vegetation on the New Castle Fire

continues to be dominated by annual and perennial forbs and cheatgrass. Based on the limited management activities occurring throughout the Canyon Creek watershed, it is assumed that cumulative effects to vegetation are minor.

**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. There is also an irrigation diversion structure on Canyon Creek that limit stream flows. However, based on limited land management activities occurring across the allotment, it is assumed that cumulative effects to soil and water are minor and unmeasurable.

**RESIDUAL EFFECTS AFTER MITIGATION MEASURES HAVE BEEN APPLIED:**

None

**4. Tribes, Individuals, Organizations or Agencies Consulted**

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

**5. List of Preparers**

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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.

<b>Table 5-1 BLM Interdisciplinary Team Authors and Reviewers</b>		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Monte Senor	Rangeland Management Specialist	NEPA Lead, Range Management, Invasive, Non-native Species
Pauline Adams	Hydrologist	Air Quality, Water Quality, Soils, Wetlands & Riparian Zones
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

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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 Canyon CK Allotment

## DOI-BLM-N040-2012-0007-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 Canyon CK 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 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 the Canyon CK (08228) Allotment. 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.*

No historic properties were identified during the inventories for this allotment which will need to be assessed to determine if livestock are impacting these resources within the term of this permit. The EA discloses the adverse impacts that could occur to cultural resources from livestock grazing. A Conditional No Adverse Effect has been made for this renewal, subject to cultural resource mitigation measures.

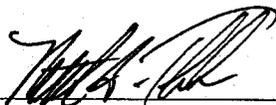
*9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

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

3-6-2012  
Date

