United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Colorado River Valley Field Office
2300 River Frontage Road
Silt, Colorado 81652

ENVIRONMENTAL ASSESSMENT

DOI-BLM-CO-N040-2015-0041 EA

CASEFILE NUMBER. Number 0505433.

PROJECT NAME. Issue Grazing Permit on the Paradise Creek Allotment (including change in livestock class and period of use).

LOCATION. Garfield County, New, Castle, Colorado.

LEGAL DESCRIPTIONS. Paradise Creek Allotment #08212, T6S, 89W, Sections 6,7,17,18; and T6S, R90W, Sections 1,2, 11,12,13. Also see attached map in Appendix A.

APPLICANT. Grazing Permittee

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 (BLM) 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 the Colorado Public Land Health Standards.

The mission of the BLM is "to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations". Land Health Standards and Guidelines for Livestock Grazing Management were developed between the BLM and the Colorado Resource Advisory Council to ensure that the mission of the BLM will be achieved. A 2007 land health assessment on the Canyon Creek allotment determined that all standards were being achieved.

This environmental assessment is needed to determine whether or not to issue a grazing permit on the Canyon Creek allotment as identified in the proposed action and if so under what terms and conditions to ensure that public land health standards and objectives for resource management are achieved.

SCOPING AND PUBLIC INVOLVEMENT AND ISSUES. 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. There were no responses for interested publics in the Canyon Creek allotment. This transfer action did not solicit further public interest.

PROPOSED ACTION. The Proposed Action is to reissue a grazing permit with a change in livestock class and season of use based on a transfer application. The Proposed Action results in a 49% AUM reduction and AUMS previously available will be suspended due to change in livestock class. The season of use under the proposed action has a turn-out date of May 15th and an off date of September 15th. The Proposed Action is in accordance with 43 CFR 4130.2. Scheduled grazing use, grazing preference, and terms and conditions for the proposed grazing permit are summarized below.

Table 1. Proposed Grazing Schedules.

Operator Name	Auth. No.	Allotment	Livestock Number	Livestock Kind	Begin Date	End Date	% AUMs on BLM	AUMs
Zane Farris	0505433	Paradise Creek #08212	50	Cattle	05/15	09/15	50	102

Table 2. Proposed Permitted Use AUMs.

Operator Name	Auth. No.	Allotment	Active	Suspended	Total
Zane Farris	0505433	Paradise Creek #08212	102	98	200

Terms and Conditions.

1. Initial grazing use will be authorized as described below:
    a. Year 1: 25 cattle from 5/15 to 9/15 (if use levels at key areas are maintained below 50%, then)
    b. Year 2: 35 cattle from 5/15 to 9/15 (if use levels at key areas are maintained below 50%, then)
    c. Year 3: 50 cattle from 5/15 to 9/15 (if use levels at key areas are maintained below 50%, then the permit will be fully authorized for the remaining term of the permit.)
2. 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.

3. 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.

4. Average utilization levels by livestock should not exceed 50% by weight on key grass species, and 40% of the key browse species current year's growth. Grazing in riparian areas should leave an average minimum 4-inch stubble height of herbaceous vegetation. If utilization is approaching allowable use levels, livestock should be moved to another portion of the allotment, or removed from the allotment entirely for the remainder of the growing season. Application of this term may be flexible to recognize livestock management that includes sufficient opportunity for regrowth, spring growth prior to grazing, or growing season deferment.

5. Adaptive management will be employed on this allotment. 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.

NO ACTION ALTERNATIVE. Under the No Action alternative the current grazing permit and all existing terms and conditions would continue to be in effect. The existing grazing permit authorizes the following use:

Table 3. Existing Grazing Schedules.

Operator Name	Auth. No.	Allotment	Livestock Number	Livestock Kind	Begin Date	End Date	% AUMs on BLM	AUMs
Malcom Jolley	0507586	Paradise Creek #08212	1000 1000	Sheep Sheep	05/16 10/01	06/15 10/31	50 50	102 102

Table 4. Existing Permitted Use (AUMS).

Operator Name	Auth. No.	Allotment	Active	Suspended	Total
Malcom Jolley	0507586	Paradise Creek #08212	200	0	200

Terms and Conditions of the Existing Grazing Permit.

1. If an assessment of rangeland health results in a determination that changes are necessary in order to comply with the standards for public land health and the guidelines for livestock grazing management in Colorado, this permit will be reissued subject to revised terms and conditions.

2. The permittee and all persons specifically associated with grazing operations must be informed that any objects or sites of cultural, paleontological, or scientific value such as historic or prehistoric resources, graves or grave markers, human remains, ruins, cabins, rock art, fossils, or artifacts shall not be damaged, destroyed, removed, moved, or disturbed. If in connection with allotment operations under this authorization any of the above resources are encountered, the proponent shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM authorized officer of the findings. The discovery must be protected until notified in writing to proceed by the authorized officer (36CFR 800. 110 & 112, 43CFR 0.4).

3. 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.

4. 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.

NO GRAZING ALTERNATIVE. Under this alternative the grazing permit described in the Proposed Action and No Action Alternative would be cancelled. As a result, no grazing would

be authorized on the Paradise Creek Allotment. This alternative would initiate the process in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on this allotment and would amend the resource management plan.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL. No other alternatives were considered.

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

Name of Plan. Glenwood Springs Resource Management Plan

Date Approved. Jan. 1984, revised 1988, amended in November 1991 - Oil and Gas Leasing and Development - Final Supplemental Environmental Impact Statement; amended Nov. 1996 - Colorado Standards and Guidelines; amended in August 1997 - Castle Peak Travel Management Plan; amended in March 1999 - Oil and Gas Leasing & Development Final Supplemental Environmental Impact Statement; amended in November 1999 - Red Hill Plan Amendment; and amended in September 2002 – Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance; amended in September 2009; and amended in October 2012 - Approved Resource Management Plan Amendments/ Record of Decision (ROD) for Solar Energy Development in Six Southwestern States.

__X__ The Proposed Action is in conformance with the LUP because it is specifically provided for in the following LUP decision(s):

____ The Proposed Action is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decisions (objectives, terms, and conditions):

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.
A Formal Land Health Assessment was conducted in the Divide Creek Watershed in 2009 which included the Paradise Creek allotment (BLM 2010a). Nearly 75% of the allotment burned in the Coal Seam Fire of 2002 and hadn't been grazed since that time. In burned areas, oakbrush and other mountain shrubs were resprouting and understory vegetation was rejuvenated by the fire. Unburned portions of the allotment were also in good condition with only slight decadence in shrubs. The allotment was considered to be meeting all the standards at the time of the assessment.

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.

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 5). Only those elements that are present and potentially affected are described and brought forth for detailed analysis

Table 5. Programs, Resources, and Uses (Including Supplemental Authorities).

Programs, Resources, and Uses (including supplemental authorities)	Potentially Affected?	
	Yes	No
Access and Transportation		X
Air Quality		X
Areas of Critical Environmental Concern	X	
Cadastral Survey		X
Cultural Resources	X	
Native American Religious Concerns	X	
Environmental Justice		X
Farmlands, Prime or Unique		X
Fire/Fuels Management		X
Floodplains		X
Forests		X
Geology and Minerals		X
Law Enforcement		X
Livestock Grazing Management	X	
Noise		X
Paleontology		X
Plants: Invasive, Non-native Species (Noxious Weeds)	X	
Plants: Sensitive, Threatened, or Endangered	X	
Plants: Vegetation	X	
Realty Authorizations		X
Recreation		X
Social and/or Economics	X	
Soils	X	
Visual Resources		X
Wastes, Hazardous or Solid		X
Water Quality, Surface and Ground	X	
Water Rights		X
Wetlands and Riparian Zones	X	
Wild and Scenic Rivers		X

Wilderness/WSAs/Wilderness Characteristics		X
Wildlife: Aquatic / Fisheries	X	
Wildlife: Migratory Birds	X	
Wildlife: Sensitive, Threatened, and Endangered Species	X	
Wildlife: Terrestrial	X	

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

AFFECTED ENVIRONMENT.

The northern and eastern portions of the Paradise Creek Allotment fall within the boundaries of the Glenwood Springs Debris Flow Hazard Zone Area of Critical Environmental Concern (ACEC). The ACEC was designated in the 1984/1988 Glenwood Springs RMP (BLM 1988) to recognize the potential threat to human life and property from the steep slopes, sparse vegetative cover, and unstable geologic conditions which make the area prone to mass wasting processes.

Existing management of the ACEC relevant to the proposed action includes a no-surface occupancy stipulation for surface-disturbing activities and a limitation on livestock use to light grazing.

The northern portion of the allotment within the ACEC consists of extremely steep, north-facing slopes which were burned in the Coal Seam Fire of 2002. These slopes are now dominated by oakbrush and other sprouting shrubs with some patches of bare ground. The eastern portion of the allotment within the ACEC consists of more moderate slopes which were largely untouched by the Coal Seam Fire. These slopes are dominated by a mosaic of oakbrush/serviceberry/mesic mountain shrublands with sagebrush/snowberry parks and some patches of Douglas-fir. The understory is a diverse and productive mix of perennial grasses and forbs. This area provides most of the accessible and desirable grazing forage on the public land part of the allotment.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. The proposed action would change from sheep grazing to cattle grazing and would reduce the AUMs by 49% from the previous permit. Cattle grazing would occur season-long (from 5/15-9/15) instead one month in the spring and one month in the fall. Grazing of cattle throughout the growing season has the potential to create areas of concentrated or prolonged use which may lead to reductions in vegetative cover and a change in species composition. The total AUMs would be phased in over 3 years, with 25 cows in Year 1 increasing to 50 cows by Year 3 if the average utilization of key grass species does not exceed 50% and no resource concerns are noted. Adhering to these terms and conditions should maintain adequate vegetative cover to protect soils from erosion and mass wasting. ACEC values should be maintained and the action would cause a negligible increase in the potential for a debris flow within the ACEC.

No Action Alternative. Under the no action alternative, the allotment would be authorized for sheep grazing for one month in the spring and one month in the fall. The land health assessment found no issues with livestock grazing, but the allotment had been in non-use for at least 7 years prior to the assessment. This alternative, with no changes in class of livestock, duration, or numbers, would be unlikely to alter the potential for a debris flow within the ACEC.

No Grazing Alternative. Without livestock grazing there would be no trampling damage or removal of forage from livestock use. Some wildlife grazing would still occur in the area, but impacts would likely be less than impacts from the combination of livestock and wildlife use. This alternative would not increase the potential for a debris flow within the ACEC.

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 #1015-24) was completed for the Paradise Creek Allotment on February 26, 2015 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.

Table 6 is based on the allotment specific analysis for the allotment in this EA. The table shows known cultural resources, the potential of Historic Properties, and Management recommendations.

Table 6. Cultural Resources Assessment Summary for the Paradise Creek Allotment (# 08212).

Land Status	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	Potential of Historic Properties	Management Recommendations (Additional inventory required and historic properties to be visited)

BLM	54.02	2518.07	2.1%	3	Moderate/ Low	Additional inventory of 15.9 acres and no sites to monitor
Private	72.68	368.72	16.5%			

A total of five cultural resource inventories (CRVFO CRIR# 5400-8, 15911-04, 1012-35; OAHP# GF.EP.R1, GF.FS.R34) have been previously conducted within the Paradise Creek Allotment #08212 resulting in the survey coverage of 126.68 acres at a Class III level. Three cultural resources have been documented with these inventories and include one eligible historic site (5GF.2775) and two needs data historic sites (5GF.4554.12, 5GF.4554.13) for the National Register of Historic Places (NRHP). Looking at the GLO records from 1887 there is potential for a historic monument; there are no indicators for historic properties on the GLOs post 1887.

ENVIRONMENTAL CONSEQUENCES.

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

Proposed Action. A reduction in AUMs through a change in livestock kind and season of use has the potential to reduce the impacts to cultural resources from ground disturbance related to heavy livestock use. Additionally, the use of adaptive management and average utilization levels will have little change on cultural resource impacts. The use of these management techniques might in fact be beneficial to lessen ground disturbance because it requires a minimum stubble height in riparian areas as well as an average utilization of 50% 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 15.9 acres is recommended to be surveyed within the term of this permit. No sites are recommended to be monitored within the allotment.

No Action Alternative. Under this alternative, no new changes would be proposed to livestock kind and season of use. Likely no new disturbances to cultural resources will occur from this continued use.

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.

NATIVE AMERICAN RELIGIOUS CONCERNS

AFFECTED ENVIRONMENT.

American Indian religious concerns are legislatively considered under the American Indian Religious Freedom Act of 1978 (PL 95-341), the Native American Graves Environmental Assessment Protection and Repatriation Act of 1990 (PL 101-601), and Executive Order 13007 (1996; Indian Sacred Sites). These require, in concert with other provisions such as those found in the NHPA and Archaeological Resources Protection Act (ARPA), that the federal government carefully and proactively take into consideration traditional and religious Native American culture and life. This ensures, to the degree possible, that access to sacred sites, the treatment of human remains, the possession of sacred items, the conduct of traditional religious practices, and the preservation of important cultural properties are considered and not unduly infringed upon. In some cases, these concerns are directly related to "historic properties" and "archaeological resources". In other cases, elements of the landscape without archaeological or other human material remains may be involved. Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation.

The Ute have a generalized concept of spiritual significance that is not easily transferred to Euro-American models or definitions. The BLM recognizes that the Ute have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. The cultural resource evaluation of these allotments describing known cultural resources and their condition was sent to the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and the Uinta and Ouray Agency Ute Indian Tribe. The letter, sent on March 2nd, 2015 requested the tribes to identify issues and areas of concern within the allotments. No comments were received at that time.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action and No Action Alternative. 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. Therefore, areas of concern to Native American tribes will not be affected.

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.

LIVESTOCK GRAZING MANAGEMENT

AFFECTED ENVIRONMENT.

The Paradise Creek Allotment #08212 currently consists of 2,548 public land acres which is mixed with an additional 441 acres of private land. The allotment ranges in elevation from approximately 6,200 to 7,800 feet. The allotment receives an average of 16 inches of precipitation annually (HPRCC). Paradise Creek Allotment is located in Garfield County above west Glenwood Springs, CO. The northern part of the allotment consists of extremely steep slopes which were burned in the Coal Seam Fire of 2002. These slopes are now dominated by oakbrush and other sprouting shrubs with some patches of bare ground. This northern portion of the allotment is not expected to get heavily utilized due to terrain, thickness of vegetation, and a lack of water. The southern part of the allotment consists of more moderate slopes, about half of which were burned in the Coal Seam Fire. These slopes are dominated by oakbrush/serviceberry/mesic mountain shrublands with sagebrush/snowberry parks and some patches of Douglas-fir. The understory is a diverse and productive mix of perennial grasses and forbs. This area provides most of the accessible and desirable grazing forage on the public land part of the allotment. Roughly half of the accessible and desirable grazing forage and water developments are found on the private land portions of the allotment.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. The Proposed action would change the livestock class, season of use, and result in a 49% reduction in AUMs from the previous. The Proposed Action changes the livestock class from a sheep to cattle. Cattle would graze season-long (from 5/15-9/15) instead one month in the spring and one month in the fall. The total AUMs would be phased in over 3 years, with 25 cows in Year 1 increasing to 50 cows by Year 3 if the average utilization of key grass species does not exceed 50% and no resource concerns are noted. If utilization levels are within BLM utilization guidelines then the permit will be fully authorized at 50 cattle for the remaining term of the permit. Paradise Creek would be stocked at a rate of 25 acres/AUM. Existing conditions are expected to be maintained. Utilization patterns may be different due differences in the grazing habits of sheep and cattle; however, utilization would be maintained within BLM utilization guidelines in the terms and conditions on the permit.

No Action Alternative. Under this alternative grazing use would be authorized under the existing schedules. The permit would most likely continue to be in a non-use status.

No Grazing Alternative. Under this alternative a grazing permit would not be reissued. As a result, no grazing would be authorized on the Paradise Creek Allotment. This alternative would initiate the process in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on this allotment and would amend the resource management plan.

PLANTS: INVASIVE NON-NATIVE SPECIES (NOXIOUS WEEDS

AFFECTED ENVIRONMENT.

A landscape-wide weed inventory has not been completed on Paradise Creek Allotment. Compliance inspections and a land health assessment have documented some infestations that are reflected in Table 7. Given the widespread nature of noxious weed infestations, it is assumed that these and other noxious weeds may be found in areas throughout allotments.

Table 7. Noxious Weed Infestations Occurring on the Paradise Creek Allotment

Scientific Name	Common Name	Statewide List Type
Cirsium arvense	Canada thistle	B List
Cynoglossum officinale L.	Houndstongue	B List
Carduus nutans	Musk thistle	B List
Verbascum Thapsus L.	Common mullein	C List

ENVIRONMENTAL CONSEQUENCES.

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 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. Properly managed livestock grazing does not create areas of bare ground and maintains the vigor and health of native plant species, particularly herbaceous species, and the proposed action 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, or other areas where livestock high concentrations are high.

No Action Alternative. Under the no action alternative, the allotment would be authorized for sheep grazing for one month in the spring and one month in the fall. This alternative, with no changes in class of livestock, duration, or numbers, would be unlikely to increase or decrease the spread of noxious weeds.

No Grazing Alternative. Under this alternative, no livestock grazing would occur on the allotment and there would be no direct or indirect impacts to weeds from livestock use. Grazing by wildlife may continue to create localized disturbances that would enable weed expansion.

PLANTS: THREATENED ENDANGERED AND SENSITIVE

AFFECTED ENVIRONMENT.

The Paradise Creek Allotment does not contain potential habitat for any of the four Federally listed plant species occurring in Garfield County: Colorado hookless cactus (*Sclerocactus*

glaucus), Ute ladies'-tresses (*Spiranthes diluvialis*) Parachute penstemon (*Penstemon debilis*), or DeBeque phacelia (*Phacelia submutica*), based on known geographic range and habitats present. No BLM sensitive plants have been documented within the vicinity of the Paradise Creek allotment and the allotment does not appear to provide potential habitat for any BLM sensitive plants.

ENVIRONMENTAL CONSEQUENCES.

All Alternatives. Due to the absence of any known occurrences or potential habitat for any Federally listed or BLM sensitive plant species, the Proposed Action, No Action and No Grazing Alternatives would have *No Effect* on listed plant populations or habitat and no impacts on BLM sensitive plants or their habitats.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 4 FOR THREATENED, ENDANGERED, AND OTHER SPECIAL STATUS PLANTS.

There are no known threatened, endangered, or other special status plant species or habitat within the Paradise Creek Allotment and thus, Standard 4 for special status plants does not apply.

PLANTS: VEGETATION

AFFECTED ENVIRONMENT.

Most of the north and west-facing slopes of the allotment are dominated by Gambel oak shrublands. Southern slopes are covered in big sagebrush/rabbitbrush in a mosaic with Gambel oak and other mesic mountain shrubs. Pockets of Douglas-fir and aspen are found at the higher elevations. Approximately 75% of the Paradise Creek Allotment burned in the Coal Seam Fire of 2002, but the sprouting shrubs and herbaceous vegetation have recovered rapidly.

ENVIRONMENTAL CONSEQUENCES.

Livestock grazing results in the direct removal of vegetation, both green shoots from the current year and old, dried growth from the previous year. Properly managed livestock grazing can improve plant vigor by removing dried stems and seed heads 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 depleting root reserves, change the species' composition in favor of less palatable plant species, and create surface disturbance and bare ground that serves as a niche for the invasion of noxious weeds.

Proposed Action. Much of the allotment is dominated by steep slopes which tend to hinder cattle movement and distribution more than sheep. Hence, cattle are likely to concentrate in the southern half of the allotment where slopes are more moderate and water is more readily

available. Grazing for the entire growing season in these areas has the potential to create areas of excessive or prolonged utilization which may not provide adequate rest and recovery to maintain plant health. The 49% reduction in total AUMs in this permit may help to alleviate these impacts. In addition, the terms and conditions of the permit provide for a phased increase in AUMs from 51 to 102 over 3 years if utilization remains below allowable limits and if no other grazing issues arise. Based on the existing dense vegetative cover and with implementation of the terms and conditions on the permit, the proposed action should provide for maintenance of good vegetation conditions.

No Action Alternative. The allotment has been in non-use since the fire in 2002, so no current utilization data is available to evaluate the current grazing system. The current grazing system provides for grazing of sheep for a month in the spring and a month in the fall. Sheep tend to utilize steeper slopes and will consume more woody forage in the fall than cattle. Since much of the allotment is steep and covered in mesic mountain shrubs, it is well-adapted for use by sheep. Thus, the no action alternative should maintain or enhance the existing good vegetative cover and diversity.

No Grazing Alternative. Under this alternative, no livestock grazing would occur on the allotment and there would be no direct or indirect impacts to vegetation from livestock use. There would be an increase in vegetative biomass (plant height and production) without the presence of livestock to remove vegetative material. Dead and dried stems and seed stalks may build up over time, particularly on the more mesic and more productive sites, reducing photosynthetic activity and potentially resulting in a decline in vegetative vigor and biomass in the long-term. There would also be less surface disturbance due to trampling and removal of vegetation and therefore, less risk of noxious weed invasion.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 3 FOR HEALTHY PLANT COMMUNITIES.

Based on the Divide Creek Land Health Assessment, the Paradise Creek Allotment was achieving Standard 3 for healthy plant communities (BLM 2010a). The Proposed Action would change the class of livestock from sheep to cattle with a reduction in AUMs, which is not anticipated to cause a decline in current vegetative conditions.

SOCIAL-ECONOMICS

AFFECTED ENVIRONMENT.

Social Conditions. BLM land grazing in the CRVFO supports a traditional and historical way of life. Cattle companies began moving into western Colorado in the early 1870s, using the open range as winter feeding grounds for their herds. 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.

Although historically livestock grazing in the region was at a higher intensity than at the present time, the livestock business has, and continues to be a traditional way of life for many permit holders. Income derived from public land grazing permits continues to comprise a moderate to substantial portion of individual livelihoods for ranching families. 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).

Economic Conditions. The total economic contribution from ranching operations on BLM lands in the CRVFO is statistically low within the region. Jobs and labor income associated with BLM grazing accounts for less than 1 percent of the area's total jobs and labor income (BLM 2014).

Permits and leases generally cover a 10-year period and are renewable if the BLM determines that the terms and conditions of the expiring permit or lease are being met. The Federal grazing fee is adjusted annually and is calculated by using a formula originally set by Congress in the Public Rangelands Improvement Act of 1978. Under this formula, as modified and extended by a presidential Executive Order issued in 1986, the grazing fee cannot fall below $1.35 per animal unit month (AUM); also, any fee increase or decrease cannot exceed 25 percent of the previous year's level. (An AUM is the amount of forage needed to sustain one cow and her calf, one horse, or five sheep or goats for a month.) .) The grazing fee for 2015 is $1.69 per AUM; the 2014 fee was $1.35.

The Federal grazing fee is computed by using a 1966 base value of $1.23 per AUM for livestock grazing on public lands in Western states. The figure is then adjusted each year according to three factors – current private grazing land lease rates, beef cattle prices, and the cost of livestock production. In effect, the fee rises, falls, or stays the same based on market conditions, with livestock operators paying more when conditions are better and less when conditions have declined. Fees paid to the federal government for livestock grazing permits generate revenue for the U.S. Treasury, of which a portion is returned to the local Grazing Advisory Board to fund range improvements and maintenance projects.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. The Proposed Action would renew ten year term grazing permits for the livestock operator, thereby continuing an historical and traditional way of life for this area. Issuance of the permits would allow the permit holders to continue their grazing operations with some degree of predictability during the ten-year period of the term permit. The social values associated with retaining a local, rural, agricultural lifestyle would be sustained.

The local economy benefits from capital spent to manage and maintain ranching operation and contributions to the labor force. The proposed action would support some direct employment.

Additional employment would be supported as livestock operators purchase services and materials and ranchers spend their earnings within the local economy.

No Action Alternative. Under the No Action Alternative 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. Under the No Grazing Alternative, the ten year term grazing permit would not be renewed. This alternative would reduce the level of authorized grazing use in Garfield County. The social values associated with retaining a local, rural, agricultural lifestyle would be incrementally affected.

The individual permit holders could be negatively impacted in the short term by loss of income. If livestock grazing was terminated, there would also be adverse impacts to the base property owner(s). There could be an annual loss of income because they may not be able to lease their private lands without having the BLM land grazing allotments. Consequently, the value of their properties could be reduced because of the elimination of the federal grazing preference. Such a loss of income would be important to the individuals, but would likely not measurably or adversely impact the local economies. Long-term effects could include the associated private lands being sold and subdivided for residential or commercial purposes.

SOILS

AFFECTED ENVIRONMENT.

A review of the soil survey by the NRCS for the *Rifle Area, Colorado, Parts of Garfield and Mesa Counties* indicate 13 soil map units occur within the Paradise allotment (NRCS 1985). The NRCS soil map unit descriptions (NRCS 2015) are provided below for the three dominant soils:

Arle-Ansari-Rock outcrop complex (2) – This complex is found on mountainsides and alluvial fans at elevations ranging from 5,500 to 7,500 feet and on slopes of 12 to 65 percent. The soils are derived from red-bed shale and sandstone while the Rock outcrop is primarily red sandstone. Approximately 45 percent of the complex is composed of the Arle soil, 35 percent the Ansari soil, and 20 percent Rock outcrop. The Arle soil is moderately deep, well drained, and has medium surface runoff and severe erosion hazard. The Ansari soil is shallow, well drained, and has rapid surface runoff and severe erosion hazard.

Cochetopa-Jerry complex (19) - these moderately steep soils are found on mountainsides at elevations ranging from 7,000 to 9,500 feet and on slopes of 25 to 50 percent. They are derived from sandstone, shale, and basalt. Approximately 50 percent of this complex is Cochetopa soil and approximately 40 percent Jerry soil. Both of these soils are deep, well drained and have slow surface runoff with moderate erosion hazard.

Torriorthents-Camborthids-Rock outcrop complex, steep (66) – This soil map unit consists of sandstone and shale bedrock and soils of variable depth occurring on slopes of 15 to 70 percent. About 45 percent of this complex is Torriorthents, 20 percent is Camborthids, and 15 percent is Rock outcrop. The Camborthids occur on the lower toe slopes on foothills and mountainsides while the Torriorthents are found on the foothills and mountainsides below the Rock outcrop. The Torriorthents are shallow to moderately deep, and clayey to loamy with gravel, cobbles, and stones. The Camborthids are shallow to deep and clayey to loamy. Rock outcrop primarily consists of Mesa Verde sandstones and Wasatch shales with occasional basaltic boulders and stones. This complex is characterized by moderate to severe erosion hazard.

Soil health was evaluated in 2009 during the Divide Creek Land Health Assessment. BLM staff concluded that soils were meeting land health standards throughout the allotment, with slight to moderate departures from expected conditions (BLM 2010a). Table 10 (refer to Water Quality section below) specify the soil and site stability ratings observed during the land health assessment. Much of the allotment is mapped as having very steep slopes (>50%), slopes greater than 30% and fragile soil types. The easternmost portion of the allotment is part of the Glenwood Springs Debris Flow Hazard Zone due to steep slopes, erosive soils and past fire activity. This allotment was burned in 2002 during the Coal Seam fire and livestock grazing has been deferred since then. Vegetative ground cover has recovered well, and soils and site stability appears to be in stable condition.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Grazing activities may 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. Based on existing soil conditions and thick vegetative ground cover; the likelihood of livestock grazing contributing to excessive soil degradation and transport to nearby drainages is not expected. Grazing activities would not likely create long term effects that would compromise soil stability on a large scale. Small-scale and localized disturbances would likely be limited to trails and watering areas. Allowing for adaptive management and reducing AUMs should provide adequate protection of soils and upland vegetation conditions.

No Action Alternative. Direct and indirect impacts of livestock grazing are similar to the proposed action, though sheep tend to have better distribution across the landscape and not congregate at water sources. The current grazing practices appear to be maintaining good upland soils and riparian vegetation. Thus, it is anticipated that the no action alternative would maintain existing soil conditions.

No Grazing Alternative. Under this alternative, no livestock grazing would occur and there would be no direct impacts to soils from livestock use. Indirectly, soil health will benefit from

livestock rest. However, trampling or removal of plant material may still occur from wildlife grazing.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 1 FOR SOILS.

Based on the Divide Creek Land Health Assessment, BLM staff concluded that soils are meeting Standard I (BLM 2010a). Implementation of the proposed action is not anticipated to degrade soil health from current conditions.

WATER QUALITY: SURFACE AND GROUND

AFFECTED ENVIRONMENT.

The Paradise Creek Allotment lies primarily within the South Canyon Creek 6th level watershed. The allotment is drained by Paradise Creek, which is an intermittent drainage tributary directly to the Colorado River just upstream from the South Canyon confluence. There are also several unnamed intermittent and ephemeral drainages across the allotment that drain toward the Colorado River. The eastern portion of the allotment is mapped as part of the Glenwood Springs Debris Flow Hazard Zone due to steep slopes, erosive soils and past fire activity. Approximately six springs have been identified across the allotment and BLM holds water rights on these sources. Several stock ponds and spring developments have been constructed for livestock and wildlife watering.

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 2013). Paradise Creek and the unnamed tributaries in the allotment are listed under the Lower Colorado River Basin (Region 11) and have water use classifications described below.

Table 8. Stream Segment Description.

Stream Segment Description	Classifications	Water Quality Stds
4a. All tributaries, including wetlands, to the Colorado River from the confluence with the Roaring Fork River to a point immediately below the confluence with Parachute Creek except for the specific listings in Segments 4b, 4c, 4d, 4e, 5, 6, 7a, 7b, 8, 9a, 9c, 10, 11a - h, and 12a.	Aquatic Life Cold 2 Recreation N Water Supply Agriculture	D.O.=6.0 mg/l pH=6.5-9.0 *E.coli*=630/100ml

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 N refers to stream segments with surface waters that are not suitable or intended to become suitable for primary contact recreation uses. Water supply and agriculture refer to stream segments that are suitable or intended to become suitable for potable water supplies and suitable for irrigation or livestock use.

The State of Colorado has developed a *303(d) List of Impaired Waters* and *Monitoring and Evaluation List* (CDPHE 2012) that identifies stream segments that are not currently meeting water quality standards with technology based controls alone. All stream drainages in the Paradise allotment are listed as having impaired water quality due to high levels of selenium, and these segments were given a medium priority by the State of Colorado.

Limited water quality data exist for the Paradise Allotment (Table 9). Several springs were surveyed in the early 1980's and indicated limited flow, but overall good water quality. More recently, in 2009 during the Divide Creek Land Health Assessment, one water quality sample was collected on Paradise Creek and indicated low flows with relatively good quality, despite higher salinity (BLM 2010a).

Table 9. BLM Collected Water Quality Data for the Paradise Allotment.

Stream Name	Date	Discharge (gpm)	Temp. (°C)	Cond. (µS\cm)	pH	Salinity ppt	Dissolved Oxygen		Total Alkalinity methyl orange (mg/L)
							%	mg/l	
Paradise Creek	6/22/2009	17.95	12.2	405	8.46	0.3	75	7.75	300
Jolley Spring No. 2	8/16/1984	0.25	16.1	154	7.22	-	-	-	-
Paradise Spring No.1	8/16/1984	2.0	20.9	1,343	6.82	-	-	-	-
Paradise Spring No.1	6/17/1982	1.0	10.2	510	7.25	-	-	-	-
Spring G - 6901104-1	4/14/1982	0.75	13.0	405	7.36	-	-	-	

BLM staff concluded that water quality was meeting land health standards throughout the Paradise allotment, with slight to moderate departures from expected conditions (BLM 2010a). Table 2 shows the slight to moderate (S-M) ratings for soil/site stability and hydrologic function. Soils and hydrologic function indicators were observed to have more water-flow patterns (2), more bare ground (4), less soil surface resistance to erosion (8), and more litter amount (14).

Table 10. Soil and Hydrologic ratings observed during the 2009 Land Health Assessment.

Site #	Allotment Name	Soil & Site Stability		Hydrologic Function	
		Indicator Number	Rating Code	Indicator Number	Rating Code
8212-01	Paradise Creek	4	S-M	4 14	S-M S-M
8212-02	Paradise Creek	2 8	S-M S-M	2 8 14	S-M S-M S-M

Based on the Land Health Assessment, livestock grazing was not found to be a significant contributing factor for water quality impairments due to selenium. In general, selenium is naturally occurring in Mancos Shale and other marine geology formations found across the allotment, and when irrigated or when soils are disturbed significantly, can leach high concentrations of selenium into surrounding water bodies. Based on the very limited disturbance observed across the allotment and dense ground cover, livestock grazing is not expected to significantly influence water quality.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Direct impacts to water quality from livestock grazing may result in elevated turbidity, nutrients and fecal coliform bacteria, if livestock 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. Allowing for adaptive management and reduced AUM's may provide for better protection of upland and riparian vegetation and subsequently maintain current water quality conditions.

> **Mitigation.** All stock ponds that are constructed or maintained in Mancos Shale or similar selenium bearing geology shall be lined to prevent leaching of selenium.

No Action Alternative. Direct and indirect impacts of livestock grazing are similar to the proposed action, though sheep tend to have better distribution across the landscape and not congregate at water sources. The current grazing practices appear to be maintaining good water quality and riparian vegetation. Thus, it is anticipated that the no action alternative would result in maintenance of existing water quality conditions.

No Grazing Alternative. Under this alternative, no livestock grazing would occur and there would be no direct impacts to water quality from livestock use. Indirectly, water quality may

benefit from livestock rest. However, trampling or removal of plant material may still occur from wildlife grazing.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 5 FOR WATER QUALITY.

Based on the Divide Creek Land Health Assessment, BLM staff concluded that water quality is meeting Standard 5, despite the stream segment being listed by the State of Colorado as 303(d) impaired water quality for selenium (BLM 2010a). This conclusion was made due to the limited impacts observed by livestock across the allotment and the fact that selenium leaching is a natural process due to the parent geology in the watershed (BLM 2010a). Implementation of the proposed action is not anticipated to degrade water quality from current conditions.

WETLANDS AND RIPARIAN ZONES

AFFECTED ENVIRONMENT.

A wetland or riparian zone is the interface between land and a river, stream, lake or other water body. Wetlands and riparian areas refer to the vegetation that is associated with a body of water and is dependent on the existence of perennial, intermittent, or ephemeral surface or subsurface water.

The only known water sources on the Paradise Creek Allotment are Paradise Creek, 3 small stock ponds and several springs. Only Paradise Creek is known to support riparian vegetation. The creek is an intermittent drainage which flows across relatively gentle terrain on private lands within the allotment and then flows through public lands in an increasingly steep and narrow drainage The riparian area is dominated by narrowleaf cottonwoods, chokecherry and red-osier dogwood. The entire drainage burned in the Coal Seam Fire of 2002, but an assessment of functioning condition in 2009 indicated that the riparian area showed prolific regeneration and was in excellent condition with no evidence of livestock grazing (BLM 2010a).

ENVIRONMENTAL CONSEQUENCES.

General. Livestock can directly and indirectly affect riparian areas through direct removal of riparian plant material, bank shearing, soil compaction and severing of roots of riparian vegetation, which are needed for plant survival and bank stability (Benhke and Raleigh, 1978). Repeated defoliations that do not allow sufficient time for rest and recovery of plant species may result in a decline in the condition of the riparian vegetation (e.g., reduced vigor, cover and age-class diversity, more bare ground and a change in species composition to earlier seral species and weeds). Excess trampling damage or loss of riparian vegetation can lead to greater erosion or deposition, changes in channel geomorphology, and less soil moisture (Skovlin 1984, Legge et al. 1981). Over-utilization of streamside/riparian vegetation can also result in increased peak flows as vegetation is not sufficient to slow stream velocities and act as a "sponge" to retain water over longer periods. Livestock grazing can also contribute to the maintenance of riparian

vegetation by defoliating dormant or dead growth, thus increasing green matter and hence root strength and growth (Wyman et al. 2006).

Proposed Action. Cattle grazing, particularly season-long grazing, has the potential to impact riparian areas more than sheep grazing. Cattle tend to linger in riparian areas and around water sources especially during the warmer months of summer. In the event cattle congregate along Paradise Creek for much of the 4-month grazing period, severe utilization and trampling of riparian vegetation could result which can cause a decline in condition (i.e. a reduction in coverage and a decrease in species composition) of the riparian zone. In addition, season-long cattle grazing in the riparian area would allow little rest and recovery time for riparian plant species.

The 49% reduction in total AUMs in this permit may help to alleviate these impacts. In addition, the terms and conditions of the permit provide for a phased increase in AUMs from 51 to 102 over 3 years if utilization remains below allowable limits and if no other grazing issues arise. With implementation of the terms and conditions on the permit, the proposed action should provide for maintenance of good riparian conditions.

No Action Alternative. Sheep are less inclined than cattle to linger along creeks and riparian areas. Sheep are also tended by a herder who moves them to fresh feed on a regular basis. Sheep grazing, in general, is likely to have less impact on riparian zones than cattle. The current grazing practices have had little, if any, noticeable impact on the riparian zone along Paradise Creek. The no action alternative would result in maintenance of a healthy riparian zone.

No Grazing Alternative. Under this alternative, no livestock grazing would occur on the allotment and there would be no direct or indirect impacts to riparian vegetation from livestock use.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 2 FOR RIPARIAN SYSTEMS.

Paradise Creek was assessed for riparian functionality in 2009. The creek was determined to be in Proper Functioning Condition and the riparian vegetation was healthy with only a few noxious weeds. The riparian area was meeting Standard 2 for wetland and riparian systems and the Proposed Action is not anticipated to result in a failure to meet the standard.

AQUATIC WILDLIFE (INCLUDING SPECIAL STATUS SPECIES)

AFFECTED ENVIRONMENT.

The action area is located in Garfield County, Colorado. According to the latest species list from the U.S. Fish and Wildlife Service (USFWS), three federally listed fish species occur within or could be impacted by actions occurring in Garfield County (USFWS 2015). BLM sensitive aquatic species are also described (BLM 2009a).

Table 11. Special Status Aquatic Wildlife Species Summary.

Federally Listed, Proposed or Candidate Aquatic Wildlife Species		
Species and Status	**Habitat/Range**	**Occurrence/ Potentially Impacted**
Green lineage cutthroat trout *(Oncorhynchus clarki stomias)* Threatened	The greenback cutthroat trout is the subspecies of cutthroat trout native to the Platte River drainage on the Eastern Slope of Colorado. The USFWS is advising federal agencies to consider green lineage cutthroat trout on the Western Slope of CO as threatened until such time as review and interpretation of recent genetics and meristic research has been completed.	Absent/No
Colorado pikeminnow *(Ptychocheilus lucius)* Endangered	Primarily exists in the Green River below the confluence with the Yampa River, the lower Duchesne River in Utah, the Yampa River below Craig, Colorado, the White River from Taylor Draw Dam near Rangely downstream to the confluence with the Green River, the Gunnison River in Colorado, and the Colorado River from Palisade, Colorado, downstream to Lake Powell. Colorado pikeminnow populations in the upper Colorado River basin are now relatively stable or growing. Designated Critical Habitat includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle.	Absent /No
Razorback sucker *(Xyrauchen texanus)* Endangered	The razorback sucker was once widespread throughout most of the Colorado River Basin from Wyoming to Mexico. In the upper Colorado River Basin, they are now found only in the upper Green River in Utah, the lower Yampa River in Colorado and occasionally in the Colorado River near Grand Junction. Because so few of these fish remain in the wild, biologists have been actively raising them in hatcheries in Utah and Colorado and stocking them in the Colorado River. Designated Critical Habitat for the razorback sucker includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle.	Absent /No
BLM Sensitive Aquatic Wildlife Species		
Species	**Habitat/Range**	**Occurrence/ Potentially Impacted**
Northern leopard frog (*Rana pipiens)*	Generally found in wet meadows and in shallow lentic habitats between 3,500 to 11,000 feet. They require year-round water sources deep enough to provide ice free refugia in the winter. Within the CRVFO, this species has been documented in locales where quality riparian vegetation exists in conjunction with perennial water sources. Larger populations have been documented northwest of King Mountain within the small drainage that feeds King Mountain (Ligon) Reservoir, June Creek and East Divide Creek south of Silt, and in portions of the Rifle Creek watershed north of Rifle.	Absent/No
Great Basin spadefoot toad (*Spea intermontana*)	This toad is known to occupy a wide variety of plant communities including lowlands, foothills and shortgrass plains. This species generally inhabits and breeds in seasonal pools and ponds in pinyon-juniper woodlands, sagebrush, and semi-desert shrublands, mostly below 6,000 feet.	Absent/No
Boreal toad (*Bufo boreas boreas*)	Occurs between 7,000-12,000 feet in the Southern Rocky Mountains in the vicinity of mountain lakes, ponds, meadows, and wetlands in subalpine forest (e.g., spruce, fir, lodgepole pine, aspen). Adults often feed in meadows and forest openings near water, but sometimes in drier forests.	Absent/No

	Restricted to areas with suitable breeding habitat in spruce-fir forests and alpine meadows. Breeding habitat includes lakes, marshes, ponds, and bogs with sunny exposures and quiet, shallow water.	
Bluehead sucker (*Catostomus discobolus*), Flannelmouth sucker (*Catostomus latipinnis*), *and* Roundtail chub (*Gila robusta*)	Primarily found in larger rivers, but may also be found in smaller tributaries with good connectivity to larger river systems. These fish are endemic to the Colorado River basin and reside within the main stem Colorado River and its major tributary streams. Given their biology, feeding habits, habitat needs, and niche in the ecosystem, these species can persist in the face of actions that increase sediments to streams and rivers containing these species.	Absent /No
Mountain sucker (*Catostomus platyrhynchus*)	Found primarily in small, low- mid elevation streams in northwestern Colorado with gravel, sand or mud bottoms. They inhabit undercut banks, eddies, small pools, and areas of moderate current. Young fish prefer backwaters and eddies. Within the CRVFO, the only known occurrence is in Piceance Creek.	Absent /No
Colorado River cutthroat trout (CRCT) (*Oncorhynchus clarkii pleuriticus*)	Select streams within the action area contain Colorado River cutthroat trout - Blue Lineage. CRCT prefer clear, cool headwaters streams with coarse substrates, well-distributed pools, stable streambanks, and abundant stream cover. CRCT occur in Trapper Creek, Northwater Creek, East Fork Parachute Creek, and JQS Gulch within the action area.	Absent/No

The only known water sources in the allotment are Paradise Creek and three small stock ponds. Paradise Creek is small, but during the Land Health Survey (BLM 2010a), contained at least two spawning adult rainbow trout within 50 meters of the Colorado River confluence. This stream flows well seasonally (spring runoff) and provides limited spawning habitat for spring spawning species such as rainbow trout. It is not likely that the stream is occupied year round due to low seasonal flows in the late summer and fall. The riparian condition was good with dense cottonwood regeneration following the Coal Seam Fire.

A portion of the northern allotment boundary is near the Colorado River, which supports bluehead suckers, flannelmouth suckers, and roundtail chub, which are BLM sensitive species, as well as brown (*Salmo trutta*) and rainbow (*Oncorhynchus mykiss*) trout, mountain whitefish (*Prosopium williamsoni*), speckled dace (*Rhinichthys osculus*), common carp (*Cyprinus carpio*), and suckers (species undetermined). Additional threatened and endangered Colorado River fish occur in Mesa County, downstream of the project area. The northern portion of the allotment is not expected to get much livestock use due to steep terrain, thick vegetation, and lack of water.

Aquatic habitats within the allotments include aquatic invertebrates, which are aquatic animals without backbones that live on the bottom of freshwater habitats during all or part of their life cycle. They are large enough to be seen with the naked eye. Major groups of macroinvertebrates include arthropods (i.e., crustaceans and insects), mollusks, sponges and nematode worms. The most abundant are typically immature life states (larvae) of aquatic insects such as mayflies, stoneflies, and caddis flies.

Amphibians in Colorado need access to ponds, lakes, seeps, springs, or other bodies of water. They avoid cold winter temperatures and dry midday summer heat by taking refuge in buffered microenvironments such as underground burrows, crevices beneath rocks, or bodies of water. Amphibian records within the CRVFO are limited, and extensive surveys have not been conducted. There are no known populations of special status amphibians in the allotment. Western chorus frogs (*Pseudacris triseriata*) and Woodhouse's toads (*Bufo woodhousii*) occur throughout Colorado. Western chorus frogs are found primarily in wetland marshes and pond margins, also including seasonal waters, and across a wide range of elevations. Woodhouse's toads are present in ponds and slow-flowing streams, including seasonal waters, below 7,000 feet in Colorado. Tiger salamanders (*Ambystoma tigrinum*) occur throughout Colorado near ponds, lakes, and water impoundments up to 12,000 feet in elevation (Hammerson 1999).

ENVIRONMENTAL CONSEQUENCES.

Streambank Alteration. As large herbivores (e.g., elk, deer, cattle) walk along streambanks or cross streams, the animals' weight can cause shearing that result in a breakdown of the streambank and subsequent widening of the stream channel. It also exposes bare soil, increasing the risk of erosion of the streambank. Animals walking along streambanks may increase the amount of soil exposed to the erosive effects of water by breaking or cutting through the vegetation and exposing roots and/or soil. Excessive trampling causes soil compaction, resulting in decreased vegetative cover, less vigorous root systems, and more exposure of the soil surface to erosion. Soil detachment and sediment transport are likely to occur during spring runoff from snowmelt and during short-duration high intensity thunderstorms.

Reduction of Streamside Riparian Vegetation. The reduction of streamside riparian vegetation can alter the nutrient dynamics of the aquatic habitat. In areas where riparian vegetation has been depleted or lost, a shift in energy inputs from riparian organic matter to primary production by algae and vascular plants have been predicted. The increased solar radiation that results from the loss of streamside (or poolside, etc.) vegetation causes temperatures, light levels, and autotrophic production (i.e., plants and algae) to increase. This change in a stream's food web could alter the composition of food and thus energy sources that are available to aquatic invertebrates. These effects may occur until such time as sufficient streamside vegetation is re-established along disturbed portions of the streams.

Amphibians. If amphibians are present in areas with livestock grazing, there is a chance that livestock could crush or consume egg clusters in seasonal waters or trample adults or juveniles.

Proposed Action. Based on the lack of perennial streams in the allotment and distance between areas livestock would be expected to graze and the Colorado River, any impacts to aquatic wildlife would be minimal. If amphibians use stock ponds, Paradise Creek, or other intermittent or ephemeral waters, there is some potential for cattle to crush or consume egg clusters or trample adults or juveniles. Cattle could be present in the allotment from May 15 to September 15, so the potential for impacts to aquatic wildlife would occur over the entire grazing season. If cattle congregate along Paradise Creek, heavy utilization and trampling of riparian vegetation could occur.

No Action Alternative. Based on the lack of perennial drainages and fish bearing streams in the allotment, and distance between areas livestock would be expected to graze and the Colorado River, any impacts to aquatic wildlife would be minimal. If amphibians use the stock ponds, Paradise Creek, or other intermittent or ephemeral waters, there is some potential for sheep to crush or consume egg clusters or trample adults or juveniles. Sheep would only be present for a month in the spring and a month in the fall, so the potential for impacts to aquatic wildlife would occur during a shorter time than under the Proposed Action. Sheep would be less likely than cattle to congregate along Paradise Creek, and would be expected to have minimal impacts to riparian vegetation.

No Grazing Alternative. There would be no direct or indirect impacts to aquatic wildlife or their habitats from livestock grazing.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 3 FOR AQUATIC WILDLIFE AND STANDARD 4 FOR THREATENED, ENDANGERED, AND OTHER SPECIAL STATUS AQUATIC WILDLIFE.

Based on the Divide Creek Landscape Land Health Assessment (BLM 2010a), the allotment was meeting Standards 3 and 4 for aquatic wildlife. Because of the lack of perennial streams and special status fish and amphibians, as well as the distance between areas expected to be used by livestock and the Colorado River, implementation of the proposed action is not expected to impact the achievement of these standards.

TERRESTRIAL WILDLIFE: MIGRATORY BIRDS

AFFECTED ENVIRONMENT.

The Migratory Bird Treaty Act (MBTA) provides protections to native birds, with the exception of certain upland fowl managed by state wildlife agencies for hunting. Within the context of the MBTA, migratory birds include non-migratory resident species as well as true migrants. For most migrant and resident species, nesting habitat is critical for supporting reproduction in terms of both nest sites and food. Also, because birds are generally territorial during the nesting season, their ability to access and utilize sufficient food is limited by the quality of the occupied territory. During non-breeding seasons, birds are generally non-territorial and able to feed across a larger area and wider range of habitats.

The allotments provide cover, forage, breeding, and/or nesting habitat for a variety of migratory birds that summer, winter, or migrate through the area. Migratory bird species that are federally listed and classified by the BLM as sensitive species are addressed in the Wildlife: Sensitive, Threatened, and Endangered Species section of this EA.

BLM Instruction Memorandum No. 2008-050 provides guidance toward meeting the BLM's responsibilities under the MBTA and the Executive Order 13186. The guidance directs Field

Offices to promote the maintenance and improvement of habitat quantity and quality and 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 16.

The project area includes the following plant communities and potentially associated migratory bird species.

Pinyon-juniper Woodlands. Pinyon and juniper trees provide food, cover and nest sites for numerous migratory birds. Species on the Birds of Conservation Concern (BCC) list that occur in the CRVFO and are associated with pinyon-juniper woodlands include the pinyon jay (*Gymnorhinus cyanocephalus*), juniper titmouse (*Baeolophus ridgwayigra*) and Ferruginous Hawk *(Buteo regalis)*. Other migratory species associated with this plant community within the CRVFO include the broad-tailed hummingbird (*Selasphorus platycercus*), black-chinned hummingbird (*Archilochus alexandri*), Say's phoebe (*Sayornis saya*), ash-throated flycatcher *(Myiarchus cinerascens)*, gray flycatcher (*Empidonax wrightii)*, Townsend's solitaire (*Myadestes townsendi*), American robin (*Turdus migratorius*), Western bluebird *(Sialia Mexicana)*, mountain bluebird (*S. currucoides*), bushtit *(Psaltriparus minimus)*, blue-gray gnatcatcher (*Polioptila caerulea*), plumbeous vireo (*Vireo plumbeus*), Western scrub-jay (*Aphelocoma californica*), Clarks's nutcracker (*Nucifraga columbiana*), black-throated gray warbler (*Dendroica nigrescens*), Virginia's warbler (*Oreothlypis virginiae*), chipping sparrow (*Spizella passerina*), lesser goldfinch (*Spinus psaltria*) and house finch (*Haemorhous mexicanus*). Winter visitors to pinyon-juniper habitats include the Cassin's finch (*Carpodacus cassinii*), a BCC species, which typically nests in montane and subalpine forests, though occasionally nests in pinyon-juniper woodlands.

Sagebrush Shrublands. Sagebrush and the associated native perennial grasses and forbs provide food, cover and nest sites for migratory birds. Sagebrush obligates that potentially occur in the CRVFO include the sagebrush sparrow (*Artemisiospiza nevadensis*), sage thrasher *(Oreoscoptes montanus)* and Brewer's sparrow (*Spizella breweri*), a BCC species. Other migratory species associated with sagebrush shrublands within the CRVFO include the western kingbird (*Tyrannus verticalis*), western meadowlark (*Sturnella neglecta*), green-tailed towhee (*Pipilo chlorurus*),

vesper sparrow (*Pooecetes gramineus*) and lark sparrow *(Chondestes grammacus)*. Some species are associated with both pinyon-juniper woodlands and sagebrush shrublands, including the Say's phoebe and gray flycatcher.

Mixed Mountain Shrublands. The vegetation of mixed mountain shrublands varies substantially depending on elevation, slope, aspect, and soil. More mesic (moist) sites such as on north-facing slopes and along minor drainages are typically dominated by Gambel's oak and serviceberry, while more xeric (dry) sites such as south-facing slopes are typically dominated by mountain-mahogany, bitterbrush, snowberry, and sagebrush. The dense cover, tall height, and abundant acorns and berries of mesic oak-serviceberry stands provide cover, forage, and nesting habitat for numerous species including spotted towhees (*Pipilo maculatus*), Virginia's warblers (*Oreothlypis virginiae*), black-headed grosbeaks (*Pheucticus melanocephalus*), black-billed magpies (*Pica hudsonia*), broad-tailed hummingbirds (*Selasphorus platycercus*), green-tailed towhees (*Pipilo chlorurus*), mourning doves (*Zenaida macroura*), Western scrub-jays (*Aphelocoma californica*) and lazuli buntings (*Passerina amoena*).

Aspen Forest. Aspen forests typically contain a profuse, diverse understory of shrubs, grasses, and herbaceous plants. Foliage-dwelling insects can be abundant, and the structure can provide openings for insectivores that feed on the wing. Thick ground cover can provide ground nesting opportunities, and older forest stands, depending on their condition, provide cavities. Aspen forests typically support greater avian diversity than adjacent conifer-dominated forests. Species can include warbling vireos (*Vireo gilvus*), house wrens (*Troglodytes aedon*), red-naped sapsuckers *(Sphyrapicus nuchalis)*, northern flickers (*Colaptes auratus*), tree swallows (*Tachycineta bicolor*), western wood-pewees (*Contopus sordidulus*), violet-green swallows (*Tachycineta thalassina*), American robins, mountain bluebirds, yellow-rumped warblers (*Setophaga coronata*) and dark-eyed juncos (*Junco hyemalis*).

Douglas-fir Forest. Shrubs, forbs, and grasses are typically absent or sparse in stands of Douglas-fir. Birds forage on seed-bearing cones and insects. Older trees can provide nest cavities. Bird species are typically similar to those occupying adjacent woodlands, and none are restricted to Douglas-fir. Common species include Steller's jays (*Cyanocitta stelleri*), red-breasted nuthatches (*Sitta canadensis*), mountain chickadees (*Poecile gambeli*), hermit thrushes (*Catharus guttatus*), western tanagers (*Piranga ludoviciana*), pine siskins (*Spinus pinus*) and Townsend's solitaires.

Riparian Woodlands and Shrublands. Riparian woodlands consisting primarily of linear stands of cottonwoods along major streams and aspen, willows, and other tall shrubs along smaller streams provide cover, feeding, and nesting habitats for a much greater number of species and individuals than adjacent vegetation communities due to the vertical and horizontal diversity of the community, the proximity to water, and typically the proximity to other vegetation communities. Forbs and insects can be more abundant in moist areas. Bird species found in cottonwood forests in the CRVFO include three BCC species: the bald eagle (*Haliaeetus leucocephalus*), Lewis's woodpecker (*Melanerpes lewis*) and willow flycatcher (*Empidonax traillii*). Other migrants include the cordilleran flycatcher (*Empidonax occidentalis*), warbling vireo, house wren, Bullock's oriole (*Icterus bullockii*), yellow warbler (*Dendroica petechia*), and American goldfinch (*Carduelis tristis*) in cottonwood woodlands and the willow flycatcher (*Empidonax*

traillii), song sparrow (*Melospiza melodia*) and fox sparrow (*Passerella iliaca*) in willow shrublands. Raptors commonly associated with cottonwood woodlands include the red-tailed, Cooper's, and sharp-shinned hawks, the great horned owl (*Bubo virginiana*) and the long-eared owl (*Asio otus*). A large wading bird, the great blue heron (*Ardea herodias*), nests singly or colonially in mature cottonwoods and may travel several miles to hunt for fish in streams, ponds, and lake margins.

Raptors. Many raptors forage over wide areas, so even if they aren't known to nest in a specific area, they may still fly over searching for food. Raptors on the BCC list that occur in portions of the CRVO include the golden eagle *(Aquila chrysaetos)*, Bald Eagle *(Haliaeetus leucocephalus)*, Ferruginous Hawk *(Buteo regalis)*, prairie falcon *(Falco mexicanus)*, peregrine falcon *(F. peregrinus)* and flammulated owl *(Psiloscops flammeolus)*. Prairie falcons nest on rocky ledges and cliffs and hunt in grasslands and semi-desert shrublands. Peregine falcons nest on the Roan Cliffs and hunt along rivers and lakes, but can be found in nearly any open vegetation community during migration and winter. Flammulated owls typically nest in ponderosa pine and aspen forests, but have been found nesting in mixed forests, and reportedly use old-growth pinyon-juniper woodlands.

A variety of raptors not on the BCC list are known to occur in the CRVO including the American kestrel (*Falco sparverius*), northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), red-tailed hawk *(Buteo jamaicensis)*, long-eared owl (*Asio otus*), great horned owl *(Bubo virginianus)*, northern pygmy owl (*Glaucidium gnoma*) and northern saw-whet owl (*Aegolius acadius)*. The northern goshawk (*Accipiter gentilis*), a BLM sensitive species, is an occasional winter visitor to pinyon-juniper woodlands from its nesting habitat in montane and subalpine forests.

ENVIRONMENTAL CONSEQUENCES.

Livestock grazing can alter vegetation structure, composition, and function. Effects on migratory birds are dependent on the species of interest and may be adverse or beneficial depending on grazing timing, frequency, and intensity. Aerial, bark and canopy insectivores may be less influenced by grazing than species feeding on nectar, insects, or seeds in the understory or on the ground. Birds may be displaced as a result of grazing. Trampling of nests, eggs, or young could occur. Losses or decreases in vegetation from overgrazing can decrease rodent prey species and affect local populations of raptors. Areas lacking vegetative structure and complexity would be expected to be lacking bird species richness. This is especially important in riparian areas, which provide habitat for many species in the arid and semiarid west, including upland birds, waders, shorebirds, raptors, neotropical migrants and passerines. Migratory birds could be temporarily displaced from vehicular traffic or human presence during maintenance of infrastructure or tending to livestock.

The permit terms and conditions provide for a phased increase in AUMs over 3 years if utilization remains below allowable limits and if no other grazing issues arise. As long as acceptable utilization levels are maintained and land health standards are achieved, any negative

impacts to migratory birds from livestock grazing are expected to be minimal and isolated, and should not influence migratory bird populations on a landscape level.

Proposed Action. Cattle could be present in the allotment from May 15 to September 15, so the potential for impacts to migratory birds would occur over the entire grazing season. Cattle would likely avoid many of the steep slopes within the allotment, potentially concentrating on the more moderate slopes on the southern half of the allotment where water is more readily available. If cattle congregate along Paradise Creek, heavy utilization and trampling of riparian vegetation could occur, which could negatively impact migratory birds using this area.

No Action Alternative. Sheep could be present for a month in the spring and a month in the fall, so the potential for impacts to migratory birds would occur during a shorter time than under the Proposed Action. Sheep tend to use steeper slopes than cattle and will consume more woody vegetation during fall than cattle. Since much of the allotment is steep and covered in mesic mountain shrubs, it is well-adapted for use by sheep. Sheep would be less likely than cattle to congregate along Paradise Creek and would be expected to have minimal impacts to riparian vegetation. Thus potential negative impacts to migratory birds using this area would be less than under the Proposed Action.

No Grazing Alternative. No livestock grazing would occur, and there would be no direct or indirect impacts to migratory birds from livestock use. There would also be no disturbance to migratory birds from vehicular traffic or human presence during maintenance of infrastructure or tending to livestock.

ANALYSIS OF PUBLIC LAND HEALTH STANDARDS 3 AND 4 FOR MIGRATORY BIRDS.

The landscape evaluated for the Divide Creek Landscape Land Health Assessment (BLM 2010a) provides both foraging and nesting habitat for a variety of migratory birds that summer, winter, or migrate through the area. The allotment was meeting Standards 3 and 4 for terrestrial wildlife, including migratory birds. Implementation of any of the alternatives is not expected to impact the achievement of these standards.

TERRESTRIAL WILDLIFE: SENSITIVE, THREATENED AND ENDANGERED SPECIES

AFFECTED ENVIRONMENT.

Table 12 summarizes Federally listed, proposed and candidate terrestrial wildlife species potentially occurring in Garfield County (USFWS 2015) and species on the Colorado BLM State Director's Sensitive Species List (BLM 2009a) that may occur in the project area.

Table 12. Federally Listed, Proposed, or Candidate Terrestrial Wildlife Species.

Federally Listed, Proposed, or Candidate Terrestrial Wildlife Species		
Species and Status	**Habitat/Range Summaries**	**Occurrence/ Potentially Impacted**
Canada lynx (*Lynx Canadensis)* Threatened	Canada lynx occupy high-latitude or high-elevation coniferous forests characterized by cold, snowy winters and an adequate prey base. In the western US, lynx are associated with mesic forests of lodgepole pine, subalpine fir, Engelmann spruce, and quaking aspen in the upper montane and subalpine zones, generally between 8,000 and 12,000 feet in elevation. Although snowshoe hares (*Lepus americanus*) are the preferred prey, lynx also feed on mountain cottontails (*Sylvilagus nuttallii*), pine squirrels (*Tamiasciurus hudsonicus*), and blue grouse (*Dendragapus obscurus*). The Forest Service has mapped suitable denning, winter, and other habitat for lynx within the White River and Routt National Forests. The mapped suitable habitat comprises areas known as Lynx Analysis Units (LAUs) that are the approximate size of a female's home range. Several LAUs include small parcels of BLM lands. There are no LAUs or linkages in the project area.	Absent/No
Mexican spotted owl *(Strix occidentalis lucida)* Threatened	This owl nests, roosts, and hunts in mature coniferous forests in canyons and foothills. The key habitat components are old-growth forests with uneven-age stands, high canopy closure, high tree density, fallen logs and snags. The only extant populations in Colorado are in the Pikes Peak and Wet Mountain areas of south-central Colorado and the Mesa Verde area of southwestern Colorado.	Absent/No
Greater Sage-grouse (*Centrocercus urophasianus)* Candidate	Sage-grouse are found only in areas where sagebrush is abundant, providing both food and cover. Sage-grouse prefer relatively open sagebrush flats or rolling sagebrush hills. In winter, sagebrush accounts for 100% of the diet for these birds. It also provides important escape cover and protection from the elements. In late winter, males begin to concentrate on traditional strutting grounds or leks. Females arrive at the leks 1-2 weeks later. Leks can occur on a variety of land types or formations (windswept ridges, knolls, areas of flat sagebrush, flat bare openings in the sagebrush. Breeding occurs on the leks and in the adjacent sagebrush, typically from March through May. Females and their chicks remain largely dependent on forbs and insects for food well into early fall. Within the CRVFO, sage-grouse are present in the northeast part of the Field Office in the Northern Eagle/Southern Routt population. While small (<500 birds), this population probably has, or had, a relationship with the larger population in Moffat, Rio Blanco and western Routt counties, and probably with the Middle Park population to the east. There is no preliminary priority or preliminary general habitat mapped in the project area.	Absent/No
Yellow-billed cuckoo *(Coccyzus americanus)* Threatened	This secretive species occurs in mature riparian forests of cottonwoods and other large deciduous trees with a well-developed understory of tall riparian shrubs. Western cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods (*Populus fremontii*) and willows (*Salix* sp.). A few sightings of yellow-billed cuckoo have occurred in western Colorado along the Colorado River near Grand Junction. There is no proposed critical habitat in the Colorado River Valley Field Office.	Absent/No
Colorado BLM Sensitive Terrestrial Wildlife Species Present or Potentially Present in the Project Area		

Species	Habitat/Range Summaries	Occurrence/ Potentially Impacted
Townsend's big-eared bat (*Corynorhinus townsendii*) Fringed myotis (*Myotis thysanodes)*	Occurs as scattered populations at moderate elevations on the western slope of Colorado. Habitat associations are not well defined. Both bats will forage for aerial insects over pinyon-juniper, montane conifer and semi-desert shrubland communities. Roosts in caves, rock crevices, mines, buildings and tree cavities. Both species are widely distributed and usually occur in small groups. Townsend's big-eared bats are not abundant anywhere in its range due to patchy distribution and limited availability of suitable roosting. No roosts or hibernaculum are documented in the project area.	Possible/No
White-tailed prairie dog (*Cynomys leucurus*)	Occurs in western Colorado, typically in desert grasslands and shrub grasslands between 5,000-10,000 feet in elevation.	Absent/No
Northern goshawk (*Accipter gentilis)*	Montane and subalpine coniferous forests and aspen forests; may move to lower elevation pinyon-juniper woodlands in search of prey during winter. Preys on small-medium sized birds and mammals. Breeds in coniferous deciduous and mixed forests. Nests are typically located on a northerly aspect in a drainage or canyon and are 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.	Possible/No
Ferruginous hawk (*Buteo regalis*)	Open, rolling and/or rugged terrain in grasslands and shrubsteppe communities; also grasslands and cultivated fields; nests on cliffs and rocky outcrops. Fall or winter resident, non-breeding.	Possible/No
Bald eagle (*Haliaeetus leucocephalus*)	Nesting/Roosting: mature cottonwood forests along rivers. Foraging: fish and waterfowl along rivers and lakes; may feed on carrion, rabbits and other foods in winter.	Present/Yes
American Peregrine Falcon *(Falco peregrines anatum)*	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
Greater Sage-grouse (*Centrocercus urophasianus)*	See Federally Listed, Proposed or Candidate Terrestrial Wildlife Species portion of table.	Absent/No
Brewer's sparrow (*Spizella berweri*)	Summers in western Colorado mountain parks and is a spring/fall migrant at lower elevations. Sagebrush obligate with an apparently secure conservation status in Colorado. Primary habitat is mature big sagebrush 1.6-3 ft. tall with low to moderate canopy cover, and habitat patches ≥15 acres. Mesic sites, particularly riparian areas within sagebrush habitats, are also an important primary habitat component.	Possible/Yes
White-faced ibis (*Plegadis chihi)*	Primarily inhabits freshwater wetlands, especially cattail (*Typha* spp.) and bulrush (*Scirpus* spp.) marshes. Rare, non-breeding, summer migrant to western Colorado valleys and mountain lakes. Feeds in flooded hay meadows, agricultural fields, and estuarine wetlands. Breeds in isolated colonies in mainly shallow marshes with "islands" of emergent vegetation.	Absent/No

Midget faded rattlesnake *(Crotalus viridis concolor)*	Found in northwestern Colorado, including western Garfield County. Sagebrush communities with an abundance of south-facing rock outcroppings and exposed canyon walls. Rocky outcrops are essential for cover, variable thermal conditions and hibernation.	Absent/No
Utah milk snake *(Lampropeltis triangulum taylori)*	In Colorado, milk snakes occur in shortgrass prairie, sandhills, shrubby hillsides, canyons and open stands of ponderosa pine in the foothills, pinyon-juniper woodlands, and arid river valleys. *L. triangulum taylori* occurs in west-central Colorado below 6000'.	Possible/Yes

There is no critical habitat, occupied habitat, or known occurrences for any Federally listed, proposed or candidate terrestrial wildlife species in the project vicinity.

Special Status Raptors. Bald eagles were removed from the federal threatened and endangered species list in 2007, but are still protected under the MBTA and Bald and Golden Eagle Protection Act and are currently listed as a BLM sensitive species. Most of the allotment overlaps with mapped bald eagle winter range and winter foraging areas as mapped by Colorado Parks and Wildlife (CPW). Peregrine falcons have been documented nesting in the cliffs above the Roaring Fork River, and potential nesting habitat is mapped in Glenwood Canyon. Northern goshawks and ferruginous hawks could use parts of the project area, particularly during fall and winter.

Special Status Reptiles. Potential habitat could exist for the Utah milk snake *(Lampropeltis triangulum taylori)*. Few records exist for special status reptiles, and extensive surveys have not been conducted. The main threats to these snakes are development, outright killing, and illegal collection for the pet trade.

ENVIRONMENTAL CONSEQUENCES.

Livestock grazing can alter vegetation structure, composition, and function. The response of special status wildlife to livestock grazing varies by habitat, species, and grazing (e.g., numbers, timing, frequency, intensity). Direct impacts include the removal and/or trampling of vegetation that would otherwise be used for food and cover; trampling of nests, eggs, or young; and livestock-wildlife interactions that may result in wildlife displacement or disease transmission. Wildlife could be displaced by vehicular traffic or human presence during maintenance of infrastructure or tending to livestock. Indirect impacts result from changes in plant community composition, structure, and productivity which together largely determine the suitability of wildlife habitat and habitat for insect and rodent prey species. Conversely, 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. A management strategy that incorporates rest periods and movement of livestock through different pastures is generally more desirable for plant growth and protecting special status wildlife species habitat than season-long grazing. As long as acceptable utilization levels are maintained and land health standards are achieved, any negative impacts to special status species from livestock grazing are expected to be minimal and isolated, and should not influence special status species populations on a landscape level.

Proposed Action. Cattle could be present in the allotment from May 15 to September 15, so the potential for impacts to special status species would occur over the entire grazing season. If cattle congregate along Paradise Creek, heavy utilization and trampling of riparian vegetation could occur, which could negatively impact special status species using this area.

Special Status Bats. The greatest threats in order of priority to Townsend's big-eared bats, and likely fringed myotis, are the loss/modification/disturbance of roosting habitat resulting from uninformed closure of abandoned mines, recreation, and renewed mining at historical sites; loss/modification/disturbance of foraging habitat resulting from the elimination of forest canopy; elimination or alteration of wetland habitat; conversion of native shrub and grasslands to urban or agricultural uses; and exposure to environmental toxins (Gruver and Keinath 2006). Roosting habitat for bats in cliffs, rock crevices, and abandoned mines would not be affected by the proposed action. Insects are abundant and widespread across the landscape, so any impacts to insect populations would be difficult to measure and are not expected to have a measurable effect on bat use or populations.

Special Status Raptors. Special status raptors in the project area would be foraging over large expanses of upland vegetation. Any impacts to prey species are not expected to have a measurable effect on raptors.

Brewer's Sparrow. Alteration of vegetation in sagebrush habitats due to livestock grazing may affect Brewer's sparrow abundance. Grazing may occasionally affect Brewer's sparrow nests through trampling or disturbance (Vasquez 2005). Cattle would be present during the entire breeding season for this species (Kingery 1998).

Special Status Reptiles. Little is known of the presence or use of this allotment by special status reptiles. Because cattle could be present for a longer period of time than under the No Action Alternative and because cattle would likely congregate on the more moderate slopes on the southern half of the allotment closer to water, there could be greater impacts to hiding cover and prey abundance in these areas under the Proposed Action. However, because cattle would be expected to avoid many of the steep slopes on the allotment, there would be no impacts to special status reptiles if they occur in these areas.

No Action Alternative. Sheep would only be present for a month in the spring and a month in the fall, so the potential for impacts to special status species would occur during a shorter time than under the Proposed Action. Because sheep would be less likely than cattle to congregate along Paradise Creek and would be expected to have minimal impacts to riparian vegetation, potential negative impacts to migratory birds using this area would be less than under the Proposed Action.

Special Status Bats. Impacts would be similar to those described under the Proposed Action. Reduced grazing along Paradise Creek could lead to slightly increased insect populations, but there would not be a measurable difference between the Proposed Action and No Action alternatives.

Special Status Raptors. Special status raptors in the project area would be foraging over large expanses of upland vegetation. Any impacts to prey species are not expected to have a measurable effect on raptors.

Brewer's Sparrow. Alteration of vegetation in sagebrush habitats due to livestock grazing may affect Brewer's sparrow abundance. Grazing may occasionally affect Brewer's sparrow nests through trampling or disturbance (Vasquez 2005). Because grazing would end on June 15, if a nest had been disturbed by sheep grazing, there could still be time for birds to nest again (Kingery 1998).

Special Status Reptiles. Sheep would be present for a shorter period of time, would be more likely to access steeper slopes, would be less likely to congregate on the more moderate slopes in the southern half of the allotment, and would be less likely to impact riparian vegetation along Paradise Creek than cattle. Potential impacts to hiding cover and prey abundance would be expected to be spread over a greater area, but would not be concentrated on the more moderate slopes in the southern half of the allotment under this alternative.

No Grazing Alternative. No livestock grazing would occur, and there would be no direct or indirect impacts to special status wildlife from livestock use. There would also be no disturbance to special status wildlife from vehicular traffic or human presence during maintenance of infrastructure or tending to livestock.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 4 FOR THREATENED, ENDANGERED, AND OTHER SPECIAL STATUS TERRESTRIAL WILDLIFE SPECIES.

There is no critical habitat, occupied habitat, or known occurrences for any Federally listed, proposed or candidate terrestrial wildlife species in the project vicinity. Based on the Divide Creek Landscape Land Health Assessment (BLM 2010a), suitable habitat was available for BLM sensitive terrestrial wildlife species, and Standard 4 was being met within the watershed for these species. All alternatives would contribute to the maintenance of meeting Standard 3 for terrestrial wildlife and therefore Standard 4 for special status terrestrial wildlife.

TERRESTRIAL WILDLIFE

AFFECTED ENVIRONMENT.

Diverse plant communities across the CRVFO support a variety of terrestrial wildlife that summer, winter, or migrate through the area. Wildlife need to move across the landscape for food, cover and in response to seasonal conditions. Human development and activities have fragmented habitat, and in some cases, created barriers to wildlife movement. Factors contributing to wildlife disturbance or degradation and fragmentation of habitat include power lines, pipelines, fences, public recreation use, residential and commercial development,

vegetation treatments, livestock and wild ungulate grazing, oil and gas development, fire suppression, roads and trails.

Big Game. Mule deer *(Odocoileus hemionus)* and Rocky Mountain elk *(Cervus elaphus nelsonii)* are recreationally important species that occur in the project area. BLM managed lands provide a large portion of the undeveloped habitat for big game in Colorado. CPW maintains maps of habitat for big game and other wildlife species. Mule deer and elk typically occupy higher elevation, forested areas during summer and migrate to lower elevation sagebrush-dominated ridges and south-facing slopes during winter. The allotment overlaps entirely with mapped mule deer and elk overall range, partially with mule deer and elk summer and winter range, and partially with elk severe winter range. Winter range is often considered the most limiting habitat type for mule deer and elk, so effective management of these areas is particularly important to the health of mule deer and elk populations.

Moose (*Alces alces*) rarely compete with livestock or other big game for forage as they forage primarily on willows (CDOW 2008). Moose tend to be found along riparian areas and in timbered areas, though they will cross semi-desert shrublands at times. Part of the allotment is mapped as moose overall range.

Other Mammals. Numerous small mammals could reside within the planning area, including mice (*Peromyscus* spp.), woodrats (*Neotoma* spp.), ground squirrels *(Spermophilus* spp.*)*, chipmunks (*Neotamias* spp.), rabbits *(Sylvilagus* spp.), skunks *(Mephitis mephitis)*, raccoons *(Procyon lotor)* and porcupines (*Erethizon dorsatum*). Many of these mammals are prey for raptors and larger carnivores.

Larger carnivores expected to occur include bobcats (*Lynx rufus*) and coyotes (*Canis latrans*). CPW has mapped the entire project area as mountain lion (*Felis concolor*) and black bear (*Ursus americanus*) habitat. Mountain lions are most likely to be in the vicinity when mule deer are present. Black bears concentrate in the area during fall when acorns are available, and the allotment is mapped as a black bear fall concentration area. The southeastern potion of the allotment is mapped as a black bear-human conflict area.

Bats documented in Northwest Colorado that could occur in the CRVFO that are not on the BLM special status species list include pallid bats (*Antrozous pallidus*), big brown bats (*Eptesicus fuscus*), spotted bats (*Euderma maculatum*), silver-haired bats (*Lasionycteris noctivagans*), hoary bats (*Lasiurus cinereus*), California myotis (*Myotis californicus*), Western small-footed myotis (*M. ciliolabrum*), long-eared myotis (*M. evotis*), little brown myotis (*M. lucifugus*), long-legged myotis (*Myotis volans*), Yuma myotis (*M. yumanensis*), big free-tailed bats (*Nyctinomops macrotis*), canyon bats (*Parastrellus hesperus*), and Brazilian free-tailed bats (*Tadarida brasiliensis*).

Gallinaceous Birds. Game birds commonly found in the project area include dusky grouse (*Dendragapus obscurus*), ring-necked pheasant (*Phasianus colchicus*) and wild turkey (*Meleagris gallopavo*). The dense cover, tall height and abundant acorns and berries of mesic oak-serviceberry stands provide cover, forage and nesting habitat for the wild turkey. Most of the

allotment is mapped as turkey overall range, and a small portion in the southwestern corner is mapped as a turkey roost site.

Waterfowl. Rivers, streams, reservoirs, ponds and associated riparian vegetation are used by a wide variety of waterfowl and shorebirds. Common species include great blue herons, Canada geese (*Branta canadensis*), mallards (*Anas platyrhynchos*), northern pintails (*A. acuta*), gadwalls (*A. strepera*) and American wigeon (*A. americana*).

Reptiles. Reptile species most likely to occur in the project area include sagebrush lizards (*Sceloporus graciosus*), prairie and plateau lizards *(S. undulatus)*, tree lizards *(Urosaurus ornatus)*, gopher snakes or bullsnakes (*Pituophis catenifer*), and western terrestrial garter snakes (*Thamnophis elegans*). Gopher snakes can be found throughout Colorado in most plant communities, including riparian areas, semidesert and mountain shrublands, pinyon-juniper woodlands, and ponderosa pine and other montane woodlands. Western terrestrial garter snakes occur throughout most of western Colorado, usually below 11,000 feet. Smooth green snakes (*Opheodrys vernalis*) can be present in riparian areas, but in western Colorado, may also be common in mountain shrublands far from water (Hammerson 1999).

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Cattle could be on the allotment from May 15 to September 15 and would likely concentrate in the southern half of the allotment where slopes are more moderate and water is more readily available. This could result in cattle concentrating in these areas as well as along Paradise Creek. AUMs would be increase annually over 3 years if utilization remains below allowable limits and no other grazing issues arise. Impacts to riparian vegetation and the more moderate slopes in the southern half of the allotment could be greater under the Proposed Action than under the No Action Alternative. However, cattle would be less likely than sheep to use portions of mapped mule deer and elk winter range in the northern part of the allotment.

Domestic livestock can compete with wild ungulates for herbaceous forage, although moderate levels of grazing can also help promote shrub growth by limiting grasses. Conversely, livestock grazing can have a beneficial effect on forage quality by removing the rough or dried seedheads and stems, while leaving or promoting the more palatable leaves for deer or elk to graze later in the season. Potential impacts to prey species are not expected to have a measureable effect on small mammal populations or predators. Potential impacts to bats and reptiles would be similar to those described for special status bats and reptiles in the Terrestrial Wildlife: Sensitive, Threatened, and Endangered Species section. Waterfowl habitat in the allotment is minimal, so impacts are not anticipated. Measureable impacts to gallinaceous birds are not anticipated. Terrestrial wildlife could be temporarily displaced from vehicular traffic or human presence during maintenance of infrastructure or tending to livestock. As long as acceptable utilization levels are maintained and land health standards are achieved, particularly on winter range, any negative impacts to big game and other terrestrial wildlife from livestock grazing are expected to be minimal and isolated, and should not influence populations on a landscape level.

No Action Alternative. Sheep could be present for a month in the spring and a month in the fall, so there would be a shorter period of time during which livestock could potentially impact terrestrial wildlife. Sheep would be less likely than cattle to impact riparian vegetation along Paradise Creek, would likely use steeper slopes than cattle, would be less likely to congregate on more moderate slopes in the southern half of the allotment, and would likely consume more woody vegetation than cattle during fall. Sheep would be more likely than cattle to forage in mapped mule deer and elk winter range.

General grazing impacts would be similar to those described for the Proposed Action. As long as acceptable utilization levels are maintained and land health standards are achieved, particularly on winter range, any negative impacts to big game and other terrestrial wildlife from livestock grazing are expected to be minimal and isolated, and should not influence populations on a landscape level.

No Grazing Alternative. Removing livestock would benefit all terrestrial wildlife by eliminating all direct and indirect competition with livestock for forage, cover, and space. There would be no disturbance to wildlife from vehicular traffic or human presence during maintenance of infrastructure or tending to livestock. The diversity and density of terrestrial animal species would be in balance with other land uses and habitat/landscape potential.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 3 FOR TERRESTRIAL WILDLIFE

Based on the Divide Creek Landscape Land Health Assessment (BLM 2010a), most sites evaluated in the watershed provided healthy and productive habitat for a diversity of terrestrial wildlife species. Aggregating the individual site level data to the landscape scale, the watershed assessment area appeared to be meeting the needs of terrestrial wildlife. Overall, ecological processes were functioning within a normal range of variability. Habitat conditions were generally good and meeting Standard 3 for terrestrial wildlife. All alternatives would contribute to the maintenance of meeting Standard 3 for terrestrial wildlife.

CUMULATIVE EFFECTS.

Soil and Water. Based on very limited land management activities occurring across the allotment, it is assumed that cumulative effects to soil and water are minor and unmeasurable if proper best management practices are implemented.

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, housing, road maintenance, oil and gas development) occur within 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.

TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONTACTED.

1. Consultation was conducted in 2007 with the three Ute tribes; the Ute Indian Tribe – Uintah and Ouray Reservation, the Southern Ute Tribe, and the Ute Mountain Ute tribe.
2. Grazing permittees

LIST OF PREPARERS.

Members of the CRVFO Interdisciplinary Team who participated in the impact analysis of the Proposed Action and alternatives, development of appropriate mitigation measures, and preparation of this EA are listed in Table 13, along with their areas of responsibility.

Table 13. BLM Interdisciplinary Team Authors and Reviewers.

Name	Title	Areas of Participation
Kristy Wallner	Rangeland Management Specialist	NEPA lead; Range; Invasive, Non-native species (Noxious weeds)
Pauline Adams	Hydrologist	Soil, Water, Air, Geology
Kimberly Leitzinger	Outdoor Recreation Planner	Recreation, Wilderness, Wild and Scenic Rivers
Carla DeYoung	Ecologist	Areas of Critical Environmental Concern; Special Status Plants, Vegetation; Wetlands & Riparian Zones
Hilary Boyd	Wildlife Biologist	Aquatic Wildlife including T/E/S, Migratory Birds and Terrestrial Wildlife including T/E/S
Erin Leifeld	Archaeologist	Cultural Resources and Native American Religious Concerns
Brian Hopkins	Planning and Environmental Coordinator	NEPA Consistency

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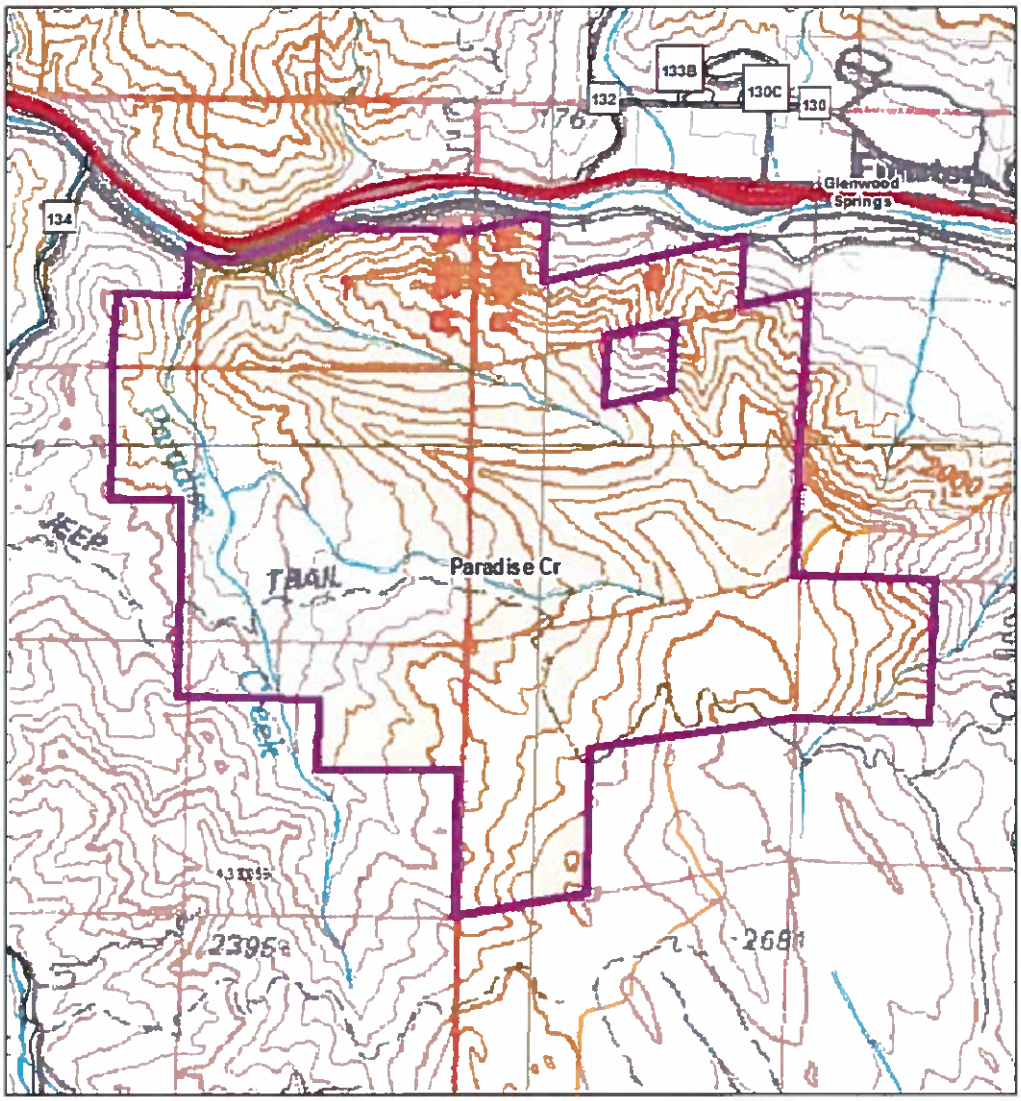
Appendix A

Paradise Creek Allotment



Legend

- Interstate
- County Road
- Grazing Allotment
- Bureau of Land Management
- Private

0 0.25 0.5 1 Miles

N

1:33,059

DOI-BLM-CO-N040-2015-0041-EA
T6S R89W Sec. 6,7,17,18
T6S R90W Sec. 1,2,11,12,13
Storm King & Glenwood Springs Quad
Garfield and Eagle Counties, Colorado
Colorado River Valley Field Office
Bureau of Land Management

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This project was developed through digital means and may be updated without notice.

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

FINDING OF NO SIGNIFICANT IMPACT

DOI-BLM-N040-2015-0041-EA

I have reviewed the direct, indirect and cumulative effects of the proposed action documented in the EA referenced above. The effects of the proposed action are disclosed in the Alternatives and Environmental Effects 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):

(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 issuing this modified livestock grazing permit are identified and discussed in the Affected Environment and Environmental Consequences sections 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 action 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.*

The northern and eastern portions of the Paradise Creek Allotment fall within the boundaries of the Glenwood Springs Debris Flow Hazard Zone Area of Critical Environmental Concern (ACEC). The ACEC was designated in the 1984/1988 Glenwood Springs RMP (BLM 1988) to recognize the potential threat to human life and property from the steep slopes, sparse vegetative cover, and unstable geologic conditions which make the area prone to mass wasting processes.

ACEC values should be maintained and the Proposed Action should cause a negligible increase in the potential for a debris flow within the ACEC.

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 Paradise Creek 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 these allotments.

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

The Proposed Action is not related to any other actions with individually insignificant but cumulatively significant impacts.

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.

Of the three cultural resources identified within the Paradise Creek Allotment, all three have been determined eligible or potentially eligible for the National Register of Historic Places. There is moderate potential for additional cultural resources to be documented within the allotment, specifically in areas with known historic activities or areas near water or other resources. Subsequent site field visits, inventory, and periodic monitoring may have to be

done to identify if other historic properties are present as well as determine if there are impacts to these properties within the term of the permit and as funds are made available. If the BLM determines that grazing activities adversely impact the properties, mitigation will be identified and implemented in consultation with the Colorado SHPO. The EA discloses the adverse impacts that could occur to cultural resources from livestock grazing.

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.*

Properly managed livestock grazing (i.e. meeting land health standards) is generally compatible with all terrestrial wildlife species. The development and maintenance of water sources for livestock may unintentionally provide beneficial effects to foraging bat and bird species. As long as acceptable utilization levels are maintained and land health standards are achieved there would be no anticipated direct or indirect impact of grazing on special status bat or bird species.

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 law or requirements imposed for the protection of the environment.

DETERMINATION.

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.

B R Hopkins

Brian Hopkins
Acting Associate Field Manager
Colorado River Valley Field Office

4-13-15

Date

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Colorado River Valley Field Office
2300 River Frontage Road
Silt, CO 81652

IN REPLY REFER TO:
ON 0505433 (CON040)

CERTIFIED MAIL 70132630000027327458
RETURN RECEIPT REQUESTED

Farris, Zane
c/o Zane Farris
1877 County Road 137
Glenwood Springs, CO 81601

NOTICE OF PROPOSED DECISION

Dear Mr. Farris:

Introduction & Background.

On February 9, 2015 you applied to renew your grazing permit on the Paradise Creek Allotment. The review and NEPA compliance has been completed as documented in the Environmental Assessment (EA) No. DOI-BLM-CO-NO40-2015-0041. A copy of the EA is enclosed. Renewal of the permit has also been reviewed for compliance with 43 Code of Federal Regulations (CFR) 4110.1(b)(1) which requires a satisfactory record of performance prior to renewal.

Finding Of No Significant Impact (FONSI).

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

Rationale: The analysis of the action with mitigation measures did not identify any impacts that would be significant in nature either in context or intensity. The grazing authorization allows for adequate plant growth recovery and promotes healthy rangelands as it relates to rangeland standards. In addition, there is nothing to indicate the action is highly controversial or that it is related to other actions with individually insignificant but cumulatively significant actions.

Proposed Decision.

As a result of this process, it is my proposed decision to renew grazing permit #0505433 for a period of 3 years (May 1, 2015 – February 28, 2018). My proposed decision results in the following authorized use and terms and conditions:

Table 1. Proposed Grazing Schedule.

Operator No.	Allotment Name & Number	Livestock Number & Kind	Period of Use	% AUMs on BLM	AUMs
0505433	Paradise Creek #08212	50 Cattle	5/15 – 9/15	50	102

Table 2. Proposed Permitted Use (AUMS).

Operator No.	Allotment Name & Number	Active	Suspended	Total
0505433	Paradise Creek #08212	102	98	200

Terms and Conditions. The following terms and conditions will be included on the renewed permit:

1. Initial grazing use will be authorized as described below:
   Year 1: 25 Cattle 5/15 to 9/15 (if use levels at key areas are maintained below 50%,then)
   Year 2: 35 Cattle 5/15 to 9/15 (if use levels at key areas are maintained below 50%,then)
   Year 3: 50 Cattle 5/15 to 9/15 (if use levels at key areas are maintained below 50%, then the permit will be fully authorized for the remaining term of the permit.)

2. 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.

3. 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. All stock ponds that are constructed or maintained in Mancos Shale or similar selenium bearing

geology shall be lined to prevent leaching of selenium.

4. Average utilization levels by livestock should not exceed 50% by weight on key grass species, and 40% of the key browse species current year's growth. Grazing in riparian areas should leave an average minimum 4-inch stubble height of herbaceous vegetation. If utilization is approaching allowable use levels, livestock should be moved to another portion of the allotment, or removed from the allotment entirely for the remainder of the growing season. Application of this term may be flexible to recognize livestock management that includes sufficient opportunity for regrowth, spring growth prior to grazing, or growing season deferment.

5. Adaptive management will be employed on this allotment. 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.

Rationale for the Proposed Decision.

Renewal of the grazing lease is in conformance with the Glenwood Springs Resource Management Plan (RMP), approved January. 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 October 2012 – Record of Decision for Solar Energy Development in Six Southwestern States.

The proposed action is in conformance with Administrative Actions (pg. 5) and Livestock Grazing Management (pg. 20) of the Glenwood Springs RMP. 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."

An interdisciplinary team prepared an EA (No. DOI-BLM-CO-N040-2015-0041) for the proposed permit renewal. My proposed decision is based on the findings of the analyses contained in the EA. The analysis of the proposed action indicated that the current conditions and land health standards in the Paradise Creek Allotment are expected to be maintained or improved. The grazing use proposed allows for adequate plant growth recovery and promotes healthy rangelands as it relates to rangeland standards.

Other terms and conditions have been included to mitigate potential impacts from grazing use and to authorize flexibility in the permits.

Authority.

43 CFR 4100.0-8 states: "The authorized officer shall manage livestock grazing on public lands under the principle of multiple use and sustained yield, and in accordance with applicable land use plans. Land use plans shall establish allowable resource uses (either singly or in combination), related levels of production or use to be maintained, areas of use, and resource condition goals and objectives to be obtained. The plans also set forth program constraints and general management practices needed to achieve management objectives. Livestock grazing activities and management actions approved by the authorized officer shall be in conformance with the land use plan as defined at 43 CFR 1601.0- 5(b)."

43 CFR 4110.2-2(a) states: "Permitted use is granted to holders of grazing preference and shall be specified in all grazing permits or leases. Permitted use shall encompass all authorized use including livestock use, any suspended use, and conservation use, except for permits and leases for designated ephemeral rangelands where livestock use is authorized based upon forage availability, or designated annual rangelands. Permitted livestock use shall be based upon the amount of forage available for livestock grazing as established in the land use plan, activity plan or decision of the authorized officer under § 4110.3-3, except, in the case of designated ephemeral or annual rangelands, a land use plan or activity plan may alternatively prescribe vegetation standards to be met in the use of such rangelands."

43 CFR 4130.2(a) states: "Grazing permits or leases authorize use on the public lands and other BLM-administered lands that are designated in land use plans as available for livestock grazing. Permits and leases will specify the grazing preference, including active and suspended use. These grazing permits and leases will also specify terms and conditions pursuant to §§4130.3, 4130.3-1, and 4130.3-2."

43 CFR 4130.2(d) states: "The term of the grazing permits or leases authorizing livestock on the public lands and other lands under the administration of the Bureau of Land Management shall be 10 years unless -- (1) The land is being considered for disposal; (2) The land will be devoted to a public purpose which precludes grazing prior to the end of 10 years; (3) The term of the base property lease is less than 10 years, in which case the term of the Federal permit or lease shall coincide with the term of the base property lease; or (4) the authorized officer determines that a permit or lease for less than 10 years is the best interest of sound land management."

43 CFR 4130.3 states: "Livestock grazing permits and leases shall contain terms and conditions determined by the authorized officer to be appropriate to achieve the management and resource condition objectives for the public lands and other lands administered by the Bureau of Land Management, and to ensure conformance with the provisions of subpart 4180 of this part."

43 CFR 4130.3-1(a) states: "The authorized officer shall specify the kind and number of livestock, the period(s) of use, the allotment(s) to be used, and the amount of use, in animal unit months, for every grazing permit or lease. The authorized livestock grazing use shall not exceed the livestock carrying capacity of the allotment."

43 CFR 4130.3-2 states: "The authorized officer may specify in grazing permits or leases other terms and conditions which will assist in achieving management objectives, provide for proper range management or assist in the orderly administration of the public rangelands."

43 CFR 4160.1(a) states: "Proposed decisions shall be served on any affected applicant, permittee or lessee and any agent and lien holder of record, who is affected by the proposed actions, terms or conditions, or modifications relating to applications, permits and agreements (including range improvement permits) or leases, by certified mail or personal delivery. Copies of the proposed decisions shall also be sent to the interested public".

Protest and/or Appeal.

Any applicant, permittee, lessee or other interested publics may protest a proposed decision under Sec. 43 CFR 4160.1 and 4160.2, in person or in writing to Monte Senor, Acting Supervisory Natural Resources Specialist, Bureau of Land Management, 2300 River Frontage Road, Silt, Colorado 81652 within 15 days after receipt of such decision. The protest, if filed, should clearly and concisely state the reason(s) as to why the proposed decision is in error.

In accordance with 43 CFR 4160.3 (a), in the absence of a protest, the proposed decision will become the final decision of the authorized officer without further notice unless otherwise provided in the proposed decision.

In accordance with 43 CFR 4160.3 (b) upon a timely filing of a protest, after a review of protests received and other information pertinent to the case, the authorized officer shall issue a final decision.

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final decision may file an appeal in accordance with 43 CFR 4.470 and 43 CFR 4160.3 and 4160 .4. The appeal must be filed within 30 days following receipt of the final decision, or within 30 days after the date the proposed decision becomes final. The appeal may be accompanied by a petition for a stay of the decision in accordance with 43 CFR 4.471 and 4.479, pending final determination on appeal. The appeal and petition for a stay must be filed in the office of the

authorized officer, as noted above. The person/party must also serve a copy of the appeal on any person named [43 CFR 4.421(h)] in the decision and the Office of the Solicitor, United States Department of Interior, 755 Parfet Street, Suite 151, Lakewood, Colorado 80215. The BLM does not accept appeals by facsimile or email.

The appeal shall state the reasons, clearly and concisely, why the appellant thinks the final decision is in error and otherwise complies with the provisions of 43 CFR 4.470.

Should you wish to file a petition for a stay, see 43 CFR 4.471 (a) and (b). In accordance with 43 CFR 4.471(c), a petition for a stay must show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied.
(2) The likelihood of the appellant's success on the merits.
(3) The likelihood of immediate and irreparable harm if the stay is not granted, and
(4) Whether the public interest favors granting the stay.

As noted above, the petition for stay must be filed in the office of the authorized officer and serviced in accordance with 43 CFR 4.473. Any person named in the decision from which an appeal is taken (other than the appellant) who wishes to file a response to the petition for a stay may file with the Hearings division a motion to intervene in the appeal, together with the response, within 10 days after receiving the petition. Within 15 days after filing the motion to intervene and response, the person must serve copies on the appellant, the office of the Solicitor and any other person named in the decision (43 CFR 4.472(b)).

Please take a moment to review your enclosed grazing permit. **If you do not have any concerns with the leases as offered, please sign, date, and return both copies to our office.** If you have any questions, contact Kristy Wallner of my range staff at (970) 876-9023.

Sincerely,

B R Hopkins 4-13-15

Brian Hopkins, Date
Acting Associate Field Manager

Enclosure(s):
Environmental Assessment (No. DOI-BLM-CO-040-2015-0041)
BLM Form 4130-2a (Grazing permit)