



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



**ENVIRONMENTAL ASSESSMENT**

**NUMBER.** DOI-BLM-CO-040-2014-0007-EA

**CASEFILE NUMBER.** 0507515

**PROJECT NAME.** Renewal of a grazing permit for the following allotments; Sunnyside Individual (No. 08611), Deer Pen (No. 08616), Newcomer (No. 08617), River-Catamount (No. 08605) and West Castle (No. 08620).

**LOCATION.** Garfield County, North of Eagle, CO

**LEGAL DESCRIPTIONS.**

<b>Table 1. Legal Description for Allotments</b>	
Sunnyside Individual	T., 2 S., R., 85 W., all/part Sections 2, 3, 4, 5, 10 and 11.
Deer Pen	T., 2 S., R., 84 W., all/part Sections 19, 30, 31.
	T., 2 S., R., 85 W., all/part Sections 13, 22 - 29, 31 - 36.
	T., 3 S., R., 85 W., all/part Sections 2 and 3.
Newcomer	T., 2 S., R., 85 W., all/part Sections 23 - 26
River Catamount	T., 2 S., R., 84 W., all/part Sections 7, 8, 16 - 20.
	T., 2 S., R., 85 W., all/part Sections 12 and 13
West Castle	T., 3 S., R., 84 W., all/part Sections: 5 - 8, 16 - 21

**APPLICANT.** Susan Nottingham (grazing permittee)

**PURPOSE AND NEED FOR ACTION.**

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

The renewal of the grazing permit is needed for the following reasons: (1) to meet the livestock grazing management goal and objective of the Resource Management Plan, (2) to continue to allow livestock grazing on the specified allotment, (3) to meet the forage demands of local livestock operations, (4) to provide stability to these operations and help preserve their rural

agricultural lands for open space and wildlife habitat, and (5) to allow use of native rangeland resource for conversion into protein suitable for human consumption.

This action is needed to determine whether or not to reissue grazing permits on the following allotments and if so under what terms and conditions to ensure that Public Land Health Standards and objectives for resource management are or will continue to be achieved.

### **SCOPING AND PUBLIC INVOLVEMENT AND ISSUES.**

A notice of public scoping was posted on the Colorado BLM's Internet web page on March 06, 2013 regarding grazing permits and associated allotments scheduled for renewal in 2013-2014. A news release was posted on March 07, 2013. The public was provided an opportunity to offer any information or concerns, or to be considered as an interested public on a permit or allotment scheduled for renewal. The Colorado River Valley Field Office Internet NEPA Register also lists grazing NEPA documents that have been initiated. They are generally posted approximately one month prior to the estimated completion date. No public comments specific to this proposed action have been received.

This action was scoped internally with the NEPA Interdisciplinary Team (Dec 30, 2013). Issues raised during the internal scoping are itemized in table 3-1 and analyzed in Section 3 Affected Environment and Environmental Effects.

### **DESCRIPTION OF PROPOSED ACTION.**

The Proposed Action is to renew the term grazing permit for the applicant. The number of livestock, class of livestock, period of use and AUMs are the same as what was indicated on the previous permit for all allotments. This permit will be issued for a 10-year period, unless the base property is leased for less, but for purposes of this EA, we are assuming 10 years of grazing by this or another applicant (in case of transfer). The proposed action is in accordance with 43 CFR 4130.2. Table 2 below summarize the scheduled grazing use and grazing preference.

**Table 2. Mandatory Terms and Conditions/Scheduled Grazing Use**

Allotment Name and Number	Livestock Kind and number		Periods of Use	Percent Public Land	Total AUMs	
Sunnyside Individual No. 08611	136 Cattle		05/10 to 05/31	100	100	
Deer Pen No. 08616	449 Cattle		05/01 to 06/30	100	900	
Newcomer No. 08617	6 Cattle		05/15 to 06/14	60	4	
River-Catamount No. 08605	50 Cattle		05/01 to 06/15	100	75	
West Castle No. 08620	Lower pasture	200 Cattle	07/01 to 07/31	100	396	
	Upper pasture	200 Cattle	08/01 to 08/31	100		
<b>Grazing Preference AUMS:</b>						
Operator No.	Allotment Name & No.			Active	Suspended	Total
0507515	Sunnyside Individual No. 08611			100	0	100
	Deer Pen No. 08616			900	0	900
	Newcomer No. 08617			4	0	4
	River-Catamount No. 08605			75	0	75
	West Castle No. 08620			396	0	396

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

Pasture rotation on the West Castle Allotment will be flexible to allow the Upper Pasture to be grazed first. The period of use dates specified for each pasture may vary annually (+/- 10 days) depending on factors such as range readiness, forage conditions, utilization levels, drought conditions, etc.

Within the uplands, livestock utilization should not exceed an average utilization of 50% on key forage species. Within riparian areas, livestock grazing should leave an average minimum 4-inch stubble height of key herbaceous vegetation and should not exceed an average utilization of 40% of the current year's growth for browse species. If utilization is approaching allowable use levels, livestock will be moved to another portion of the allotment, moved to the next scheduled pasture or removed immediately from the allotment.

Adaptive management will be employed on Sunnyside Individual, Deer Pen, Newcomer, West Castle, and River Catamount allotments. The BLM will allow up to 14 days of flexibility in the start and end dates on this permit depending on range readiness. The range will be considered ready when there is a minimum of 4-inches of new growth on grasses. AUMs may not exceed Active Preference. Livestock use different than that shown above must be applied for and approved by the Authorized Officer in advance.

Travel restrictions within the Castle Peak Travel Management Area are applicable to the Deer Pen, West Castle and Newcomer allotments. In areas closed to motorized travel or during seasonal closures to maintain travel, normal grazing administration, facility maintenance, or facilities operation will be accessed by non-motorized methods only, unless authorized by an approved administrative access agreement. In areas closed to motorized travel or during seasonal closures to motorized travel, the permittee will be required to get pre-approval from a BLM authorizing officer for reconstruction of existing permitted facilities or other operation requiring motorized equipment. In cases of emergency, the permittee will be allowed access by motorized vehicle but must notify a BLM authorizing officer within 72-hours of the emergency. The permittee will not be allowed to use motorized equipment in an area closed to motorized travel other than those authorized by the BLM.

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.

Deer Pen Allotment (within the Area of Critical Environmental Concern): Project maintenance is required to conform to visual resource Class I objectives and "closed" off road vehicle designation. Management activities or any level of change to the characteristic landscape should be low and not attract attention.

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 a 48-hour advanced notice of any maintenance work that will involve heavy equipment. Disturbed areas will be reseeded with a certified weed-free seed mixture of native species adapted to the site.

#### **NO GRAZING ALTERNATIVE.**

Under this alternative the grazing permit described in the Proposed Action would not be reissued. As a result, no grazing would be authorized on the Sunnyside Individual, Deer Pen, Newcomer, River-Catamount and West Castle allotments. This alternative would initiate the process in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on these allotments and would amend the resource management plan.

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

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

#### **PLAN CONFORMANCE REVIEW.**

The proposed action is subject to the following plan(s):

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.

- 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):

## **RELATIONSHIP TO STATUTES, REGULATIONS, OTHER PLANS.**

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

## **STANDARDS FOR PUBLIC LAND HEALTH.**

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

The Deer Pen, Newcomer, River/Catamount, and W Castle Allotments are located within the Burns to State Bridge Land Health Assessment (2006). Sunnyside Individual Allotment is within the King Mountain Land Health Assessment (2011). A determination of findings from the assessments was completed on Dec 2007 (Burns to State Bridge) and Sept 2012 (King Mountain). The five allotments in this proposed action were considered to be meeting all of the standards at the time of the assessments.

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 relevant 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 effects on the affected environment stemming from the implementation of the various actions.

A variety of laws, regulations, and policy directives mandate the evaluation of the effects of a proposed action and alternative(s) on certain environmental elements. Not all programs, resources or uses are present in the area, or if they are present, may not be affected by the proposed action and alternatives (Table 3.). Only those elements that are present and potentially affected are described and brought forth for detailed analysis.

Table 3. 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 western portion of the Deer Pen Allotment falls within the Bull Gulch ACEC. The Bull Gulch ACEC was designated for its scenic values in the 1984 RMP and is being managed as a VRM Class I area and is closed to OHV use. Lands within the ACEC must be managed to preserve the existing characteristic landscape.

### ENVIRONMENTAL CONSEQUENCES.

**Proposed Action.** The ACEC portion of Deer Pen Allotment is steep and rugged and receives very little grazing use. The proposed action, with no changes in class of livestock, duration, or numbers, will not adversely impact the relevant and important scenic values found within the Bull Gulch ACEC.

**No Grazing Alternative.** Livestock rarely utilize the part of the Deer Pen Allotment that lies within the Bull Gulch ACEC; therefore, cancelling the grazing permit on this allotment is unlikely to create any noticeable impact, either adverse or beneficial, on the ACEC values.

## 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#1014-3) was completed for the West Castle, River Catamount, Sunnyside Ind., Deer Pen and Newcomer allotments on January 7, 2014 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 4 below is based on the allotment specific analysis for the five allotments in this EA. The table shows known cultural resources, the potential of Historic Properties, and Management recommendations.

Allotment Name and Number		Acres Inventoried at a Class III level	Acres NOT Inventoried at a Class III Level	Percent Allotment Inventoried at a Class III Level (%)	Number of Cultural Resources known in Allotment	High Potential of Historic Properties (yes/no)	Management Recommendations (Additional inventory required and historic properties to be visited)
Sunnyside Ind. #08611	BLM	250.4	1602.6	13.5%	25	Moderate	Inventory 8.3 new acres, monitor 2 sites (5EA.1754 and 5EA.1760)
Deer Pen #08616	BLM	2709	5253.7	34%	75	High	Inventory 86.4 new acres, monitor 2 sites (5EA.573 and 5EA.2794)
Newco mer #08617	BLM	27.2	63.2	60%	1	Low	Inventory 7 new acres, no sites to monitor.
	Private	1.4	414.5	0.3%			
River Catamount #08605	BLM	386.3	1008.7	27.6%	12	Moderate	No new inventory required, monitor 4 sites (5EA.1838, 5EA.1886, 5EA.164, 5EA.1884)
	Private	38	20.5	64.9%			
West Castle #08620	BLM	162	4363.1	3.5%	5	Moderate	Inventory 27 acres, monitor 1 site (5EA.482)

A total of four cultural resource inventories (CRVFO CRIR# 540, 1102-1, 1102-3, 15406-3) have been previously conducted within the Sunnyside Ind. Allotment #08611 resulting in the survey coverage of 250.4 acres at a Class III level. Twenty-five cultural resources have been documented with these inventories and include one eligible prehistoric site (5EA.1754), one needs data prehistoric site (5EA.1760), eight not eligible prehistoric sites (5EA.1761, 5EA.2437-5EA.2443, 5EA.2448), 13 not eligible prehistoric isolated finds (5EA.1773-5EA.1776, 5EA.2444-5EA.2447, 5EA.2450-5EA.2454), and one not eligible historic site (5EA.2455.1). Looking at the GLO records from 1918 there is potential for a historic ditch and road with various homesteads on private land in the surround area.

In the Deer Pen Allotment #08616, eighteen cultural resource inventories (CRVFO CRIR# 540, 591, 827, 894, 971, 994, 999, 1040, 14300-1, 1102-2, 1102-3, 14504-3, 16506-1, 16507-5, 15808-3, 17310-2, 15411-1, and 15412-1) have been conducted resulting in the survey coverage of 2,709 acres at a Class III level. Seventy-five cultural resources have been documented during these inventories; these sites include four eligible prehistoric sites (5EA.573, 5EA.1838, 5EA.2682, 5EA.2794), six needs data prehistoric sites (5EA.1837, 5EA.1841, 5EA.1842, 5EA.1850, 5EA.1851, 5EA.2472), eleven not eligible prehistoric sites (5EA.1839, 5EA.1840, 5EA.1843, 5EA.1845-5EA.1849, 5EA.2471, 5EA.2369, 5EA.2789), 45 not eligible prehistoric isolated finds (5EA.1852-5EA.1866, 5EA.2473-5EA.2478, 5EA.2480, 5EA.2482, 5EA.2632-5EA.2638, 5EA.2791-5EA.2793, 5EA.2795-5EA.2799, 5EA.2960, 5EA.2962-5EA.2965, 5EA.2967, 5EA.2968), one eligible historic site (5EA.214.1), six not eligible historic sites (5EA.1837.1, 5EA.1844, 5EA.2479, 5EA.2481, 5EA.2891.1, 5EA.2966), and two not eligible historic isolated finds (5EA.2790 & 5EA.2961). Looking at the GLO records from 1882 there is

potential for a historic homestead and the records from 1918 show there is an increase in historic activity to include roads, telephone lines, ditches, and bridges within or near the allotment.

A total of three cultural resource inventories (CRVFO CRIR# 894, 1102-2, 15413-1) have been conducted in the Newcomer Allotment #08617 resulting in the survey coverage of 28.6 acres at a Class III level. One cultural resource has been documented within the allotment and is a not eligible prehistoric isolated find (5EA.2969). Looking at the GLO records from 1918 there is some potential for historic sites in the allotment due to the fact that the current private land was historically a plowed field and continues to be today.

In the River-Catamount Allotment #08605, eleven cultural resource inventories (CRVFO CRIR# 440, 540, 620, 728, 894, 921, 971, 1098-19, 14501-2, 1102-3, 15411-1) have been previously conducted resulting in the survey coverage of 424.3 acres at a Class III level. Twelve cultural resources have been documented with these inventories and include three eligible prehistoric sites (5EA.1838, 5EA.1886, 5EA.164), one prehistoric needs data site (5EA.1884), one not eligible prehistoric site (5EA.1887), two not eligible prehistoric isolated finds (5EA.1911, 5EA.1912), four not eligible historic sites (5EA.207, 5EA.1885, 5EA.1888, 5EA.1889.1) and one not eligible historic isolated find (5EA.1913). Looking at the GLO records from 1918 indicate that the Colorado River Road was the historic Burns to McCoy Road, there was a historic telephone line running through the area, a historic cabin, and a historic homestead. This indicated that there was a fair amount of activity in the area historically, representative of the multiple historic sites that have been documented within the allotment.

A total of ten cultural resource inventories (CRVFO CRIR# 258, 727, 999, 1102-1, 14504-3, 5412-6, and OAHP# EA.LM.NR145, EA.LM.NR143, EA.LM.NR142, and EA.LM.NR35) have been previously conducted within the West Castle Allotment #08620 resulting in the survey coverage of 162 acres at a Class III level. Five cultural resources (5EA.482, 5EA.483, 5EA.502, 5EA.2155, 5EA.2156) were documented during these inventories. Of the five sites, one is a prehistoric site that is needs data (5EA.482), one is a historic site that is not eligible (5EA.502), and three are prehistoric isolated finds (5EA.483, 5EA.2155, 5EA.2156) that are not eligible for the National Register of Historic Places (NRHP). Looking at the General Land Office (GLO) records from 1882 and 1922 show no historic development within the allotment.

## ENVIRONMENTAL CONSEQUENCES.

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

The use of adaptive management will have little change on cultural resource impacts. The use of this management technique might in fact be beneficial to lessen ground disturbance because it

requires four inches of new growth on grasses and therefore livestock will not be grazing when soils are more exposed or when the area is more susceptible to erosion.

A total of 8.3 new acres of inventory are recommended within the Sunnyside Ind. allotment and two sites (5EA.1754 and 5EA.1760) need to be monitored. In the Deer Pen allotment, a portion of 86.4 new acres of inventory are recommended within the allotment and at least two sites (5EA.573 & 5EA.2794) should be monitored. A total of 7 new acres is recommended to be inventoried within the Newcomer allotment but no sites need to be monitored. No further cultural resource inventory is recommended in the River-Catamount Allotment but four sites (5EA.1838, 5EA.1886, 5EA.164, 5EA.1884) need to be monitored. Within the West Castle allotment, additional cultural resource inventory is recommended totaling 27 acres around water sources or stock ponds and one site needs to be monitored (5EA.482).

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

***Mitigation.***

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

This allotment may contain undiscovered historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. If the BLM determines that grazing activities will adversely impact the properties, mitigation will be identified and implemented in consultation with the Colorado SHPO. The BLM may also require modification to development proposals to protect such properties, or disapprove any activity that is likely to result in damage to historic properties or areas of Native American concern.

## **NATIVE AMERICAN RELIGIOUS CONCERNS**

### **AFFECTED ENVIRONMENT.**

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

material remains may be involved. Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation.

The Ute have a generalized concept of spiritual significance that is not easily transferred to Euro-American models or definitions. The BLM recognizes that the Ute have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. The cultural resource evaluation of these allotments describing known cultural resources and their condition was sent to the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and the Uinta and Ouray Agency Ute Indian Tribe. The letter, sent on February 4, 2014, requested the tribes to identify issues and areas of concern within the allotments. No comments or concerns were received.

#### **ENVIRONMENTAL CONSEQUENCES.**

***Proposed Action.*** Two sites have been identified within these allotments as potentially significant to the Native American tribes. One site is in the Deer Pen allotment (5EA.2794) and one is in the River/Catamount allotment (5EA.1886). These sites may potentially be impacted by grazing activities such as trampling, concentrating, or leaning and therefore will be monitored at least once every 10 years when the permit is issued. If adverse impacts are occurring, the tribes will be notified and appropriate mitigation and stabilization will occur immediately.

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

#### ***Mitigation.***

Following the mitigation measures in the Cultural Resources section will help to ensure direct and indirect impacts are not occurring in areas where concern is unknown.

### **LIVESTOCK GRAZING MANAGEMENT**

#### **AFFECTED ENVIRONMENT.**

Grazing authorization number 0507515 allows grazing on five allotments at various times. Spring time grazing would be allowed on Deer Pen, River Catamount, Sunnyside Individual and Newcomer Allotments. Mid-summer grazing would be allowed on Sunnyside Individual, and mid to late summer grazing allowed on West Castle. The Newcomer allotment would be grazed mid-May to mid-June yearly.

***Sunnyside Individual 08611.*** There are approximately 1,848 acres of public land on the southwest slopes of King Mountain within the Sunnyside Individual Allotment. This allotment is located less than two miles northwest of Burns CO. The Sunnyside Allotment borders up to Sunnyside Individual on the west and to the east is West Sunnyside. Eagle County road 43 passes through this allotment and the areas to the north and to the southwest are privately held.

There are no private or state lands within this allotment. Within this allotment is the Hangman weather station.

*Deer Pen 08616.* There are around 7,962 acres of public land within the Deer Pen Allotment and is south of Burns CO. The Colorado River comprises the western, northwestern and northern parts of the allotment boundary. There are no internal pastures within this allotment. Considering the Newcomer and private lands in the middle of this allotment, there are two distinct use areas, one in the west and the other to the east. After turnout, cattle typically go to those areas which provide the amounts of forage and water they seek. Deer Pen is grazed for 60 days during May and June yearly. Early spring use focuses on the areas free of snow and with water. Then as the snowline retreats more of the forage within this allotment becomes available. Water developments, when used as a tool to move livestock around, provide opportunities for adaptive water management moving cattle within the allotment spreading out utilization. The new water pipeline in the central area of the allotment would be used to move livestock around in the grazing season. There are no private lands within this allotment.

*Newcomer 08617.* There are 127 acres of public land within the Newcomer Allotment; however the vast majority is private. This allotment is adjacent to the Colorado River road to the north and borders the Deer Pen Allotment on the west, south and portions of the eastern boundary.

*River-Catamount 08605.* There are 1,453 acres of public land within the River-Catamount Allotment which is sandwiched in between Deer Pen and Piskey allotments.

*West Castle 08620.* There are 4,524 acres of public land within the West Castle Allotment which is generally to the south of the other allotments and is mostly a wilderness study area. The livestock operation practiced upon this allotment is to use the lower pasture first followed by the upper pasture which reduces the period of use to one month in each pasture. All of the land within this allotment is Public lands.

#### **ENVIRONMENTAL CONSEQUENCES.**

***Proposed Action.*** Under the Proposed Action, livestock would be turned out onto Sunnyside Individual, Deer Pen, Newcomer and River Catamount beginning in early to mid-May with West Castle used in early to mid-summer. There is no late fall or winter grazing on any of these allotments. By allowing 14-days of flexibility regarding turnout, livestock would be allowed to graze when the forage resource has had time to acquire sufficient leaf area to begin replenishing root stored carbohydrates. Livestock would also be removed from Sunnyside Individual, Deer Pen, Newcomer and River Catamount allotments early enough during the growing season to allow for plant regrowth and seed set. West Castle would be used later in the grazing year which allows for early spring green up and root reserve replenishment before livestock use.

***No Grazing Alternative.*** Under this alternative this grazing permit would be cancelled. Cancelling grazing use on these allotments may result in economic harm to the permittee. This alternative would initiate the process in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on these allotments and devote the land to some other purpose and would result in amendments to the resource management plan.

## PLANTS: INVASIVE NON-NATIVE SPECIES (NOXIOUS WEEDS)

### AFFECTED ENVIRONMENT.

A landscape-wide weed inventory has not been completed on West Castle, River-Catamount, Sunnyside Ind, Deer Pen, and Newcomer allotments. Table 5 reflects infestations known to occur within areas of the proposed action. Given the widespread nature of noxious weed infestations throughout the area along travel routes, range improvements, wildlife and livestock movement between allotments it is assumed that these and other noxious weeds may be found in areas throughout the allotments.

**Table 5. Infestations Known to Occur within Area of Proposed Action.**

Common Name	Scientific Name	State Designation	Allotment (s)
Canada thistle	<i>Cirsium arvense</i>	B	West Castle, River-Catamount, Deer Pen, Sunnyside Ind
Houndstongue	<i>Cynoglossum officinale</i>	B	All
Musk thistle	<i>Carduus nutans</i>	B	West Castle, River-Catamount, Sunnyside Ind
Plumeless thistle	<i>Carduus acanthoides</i>	B	West Castle, River-Catamount
Diffuse knapweed	<i>Centaurea diffusa</i>	B	Deer Pen
Common Burdock	<i>Arctium minus</i>	C	All

### 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. However, this effect is minimal as compared to other weed seed dispersal vectors such as vehicle routes and ground disturbing activities. Conversely, properly managed livestock grazing which does not create areas of bare ground and maintains the vigor and health of native plant species, particularly herbaceous species, is not expected to cause a substantial increase in noxious weeds. Since the proposed action was designed to sustain and/or improve land health, no significant impacts to non-native, invasive species are expected. Noxious and invasive plant species are not expected to radically increase as a result of the continuation of livestock grazing practices and most infestations will be isolated to watering facilities, salting areas, or other areas where livestock concentrations are high.

**No Grazing Alternative.** Under this alternative, no livestock grazing would occur on the allotments 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. Wildlife and recreation would continue to be vectors for the transportation of noxious weeds.

## PLANTS: SENSITIVE, THREATENED, OR ENDANGERED

### AFFECTED ENVIRONMENT.

There are no known occurrences of any federally listed, proposed or candidate plant species within the five allotments in this proposed action. There is some potential habitat for *Spiranthes diluvialis* (Ute ladies'-tresses) along the Colorado River which borders the Deer Pen and River/Catamount Allotments. No potential habitat exists for any other listed plants in the proposed action area (USFWS 2013).

Known, occupied habitat for the BLM sensitive plant, *Penstemon harringtonii* (Harrington's penstemon) exists within the Deer Pen and Sunnyside Ind Allotments. Additional, uninventoried potential habitat exists within all five of these allotments (Deer Pen, Newcomer, River/Catamount, Sunnyside Ind, and West Castle). For the purposes of this analysis, all allotments with potential habitat will be presumed to be occupied.

### ENVIRONMENTAL CONSEQUENCES.

**Proposed Action.** Inventories for the threatened plant, Ute ladies'-tresses, have not yet been conducted along the Colorado River. However, the allotments which border the Colorado River are either fenced from the river or the slopes above the river are steep and rugged thereby preventing any grazing along the floodplain of the river. Consequently, the proposed grazing permit renewal would have "No Effect" on any ESA-listed plant species.

Harrington's penstemon is quite palatable to both livestock and wildlife and flowering stalks are often removed by grazing. Reductions in populations could result if excessive grazing removes a high percentage of the flower stalks annually thereby inhibiting seed dissemination and reproduction. The period of grazing use on the Deer Pen, Sunnyside Ind, Newcomer, and River/Catamount Allotments coincides with the period when Harrington's penstemon plants would be sending up flower stalks and flowering, thus the potential for adverse impacts during this time is greater. If flower stalks are removed by grazing, a new flower stalk will not develop that year regardless of the length of the recovery period. In addition, concentrated grazing at any time of year can result in trampling damage which can cause mortality to individual plants and reductions in long-term viability of populations.

Utilization data for the five allotments in this permit renewal are fairly limited. Utilization records which do exist indicate slight to light grazing use except in the lower elevations of the Deer Pen Allotment. The level of observed grazing use on these allotments would not be expected to result in any appreciable grazing of Harrington's penstemon flowering stalks and reproduction should not be adversely affected. Proper livestock grazing in which the animals are well distributed and graze lightly on a variety of herbaceous vegetation tends to balance the competition between Harrington's penstemon and other herbaceous vegetation which compete with it for sunlight, water, and nutrients. Light grazing, therefore, can be beneficial to penstemon populations.

### ***Mitigation.***

To date, no adverse impacts to Harrington's penstemon specific to livestock grazing have been documented in these allotments. If future monitoring or assessments determine that livestock grazing in these allotments is having an adverse impact to this species (i.e. failure to achieve Standard 4), mitigation measures will be identified and added to the terms of the permits at that time.

***No Grazing Alternative.*** Under this alternative, no livestock grazing would occur on these allotments. Without livestock, fewer flowering stalks of Harrington's penstemon may be removed by grazing, and there may be a slight increase in population density due to more successful reproduction of penstemon plants. Conversely, without livestock grazing, there would be less removal of competing vegetation and penstemon populations may decrease due to competition with other plants. These impacts may ultimately balance out and the resulting change in Harrington's penstemon populations would be negligible or minor.

### **ANALYSIS OF PUBLIC LAND HEALTH STANDARD 4 FOR SPECIAL STATUS PLANT SPECIES.**

The proposed action is located within the Burns to State Bridge (2006) and King Mountain (2011) Land Health Assessments. A determination of findings from the assessments was completed in December 2007 (Burns to State Bridge) and October 2012 (King Mountain) and found that the five allotments in this proposed action were considered to be meeting Standard 4 for threatened, endangered, and other special status plants at the time of the assessments. No changes in grazing use have occurred since the previous assessments; therefore, continuation of grazing in the same manner and at the same level is not expected to result in a failure to achieve the standard.

## **PLANTS: VEGETATION**

### **AFFECTED ENVIRONMENT.**

Upland vegetation in the Newcomer and River/Catamount Allotments and the lower elevations of the Sunnyside Ind and Deer Pen Allotments, consists primarily of Wyoming big sagebrush and pinyon/juniper with an understory of perennial grasses and forbs. The upper elevations of Deer Pen and Sunnyside Ind support mesic mountain shrubs such as oakbrush, serviceberry, rabbitbrush, and mountain big sagebrush. The West Castle Allotment is generally higher in elevation and consists of sagebrush, aspen, conifer, mountain shrub, and a variety of grass and forb species.

Much of the Deer Pen Allotment and River/Catamount Allotments have undergone vegetation treatments over the past 10 years to a) reduce the cover of oakbrush, b) reduce P/J encroachment into sagebrush habitat, and c) improve the cover of grasses and forbs for wildlife habitat. Ocular assessments indicate that these vegetation treatments have reduced cover of sagebrush and oakbrush but substantially increased the cover of rabbitbrush and snowberry. Grass and forb cover has also increased; however, much of the increased cover consists of Kentucky bluegrass. A small-scale P/J handcutting project was conducted in the sagebrush parks of the Sunnyside Ind

Allotment. Isolated patches of cheatgrass appeared in the duff under the former canopy of the P/J trees. The cheatgrass infestation does not appear to have expanded since the treatment.

Significant Plant Communities. Within the Deer Pen Allotment boundary, there is one riparian plant community along the Colorado River (Silver buffaloberry-*Shepherdia argentea*) that is considered a “significant plant community” by BLM because of its relative rarity and good ecological condition.

#### **ENVIRONMENTAL CONSEQUENCES.**

**Proposed Action.** 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 seedheads thereby improving photosynthetic activity of live plant material. If the timing or intensity of grazing does not allow adequate recovery and regrowth periods between grazing events, grazing may: reduce plant vigor or cause plant mortality by depleting root reserves, change in 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.

With the exception of the Deer Pen Allotment, the period of grazing use on each of these allotments is less than two months. Deer Pen has a wide elevation range and thus livestock tend to move from the lower elevations to the higher elevations throughout the grazing period.

*Deer Pen Allotment.* The most recent utilization studies on the Deer Pen in 2008 ranged from light use on bottlebrush squirreltail, moderate-to-heavy use on western wheatgrass, to severe use on Kentucky bluegrass. Several compliance reports for this allotment mention problems with sagebrush (severely hedged, old age class, few young plants present) and attributed the cause to deer use. The proposed period of grazing use is two months in late spring-early summer. The allotment spans a considerable elevation range and livestock generally move from lower to higher elevations throughout the grazing season which should allow adequate grazing rest and recovery time for upland plant species to replenish root reserves, disseminate seed and establish seedlings to maintain individual plant health, and plant community composition and cover. In addition, the application of utilization limits on the grazing permit should help ensure maintenance of plant health.

*River/Catamount Allotment.* No livestock grazing use was noted in the River/Catamount Allotment in 2007 or 2011. No other data were available for the allotment in the past 10 years. The allotment is grazed for 6 weeks in late spring which should allow adequate grazing rest and recovery time for plant health.

*Newcomer Allotment.* No recent utilization data are available for Newcomer Allotment. The allotment contains only a small amount of public land and most of the forage production and livestock use probably occurs on the unfenced irrigated meadows on private land. The proposed period of grazing use is one month in late spring and should allow ample grazing rest and recovery time for upland plant species.

*Sunnyside Ind Allotment.* Utilization conducted on Sunnyside Ind in 2011 documented utilization ranging from slight to moderate. Sagebrush had a decadent appearance (severely hedged, portions of plants dead, few young plants present). This was attributed to winter deer use. Pinyon/juniper encroachment was also mentioned as a problem, which is likely the result of fire suppression. A good diversity and coverage of perennial grasses was noted. The proposed period of grazing use is only three weeks in the spring which should allow ample grazing rest and recovery time for upland plant species.

*West Castle Allotment.* West Castle utilization in 2010 fell within the slight to light range. The allotment is divided into two pastures and is used under a rotational grazing system. Each pasture receives approximately one month of grazing use. This coupled with the light utilization occurring on the allotment should allow ample grazing rest and recovery time for upland plant species.

Given the information above, no adverse impacts to vegetation are anticipated from the proposed action to renew the grazing permit for the Deer Pen, River/Catamount, Newcomer, Sunnyside Ind, and West Castle Allotments.

Significant Plant Communities. The silver buffaloberry significant riparian plant community is found along the south bank of the Colorado River. This small community is at the bottom of a steep, north-facing slope covered in Douglas-fir and is inaccessible to livestock. As a result, there would be no impacts to this plant community from the continuation of livestock grazing in the Deer Pen Allotment.

*No Grazing Alternative.* Under this alternative, no livestock grazing would occur on these allotments and there would be no direct or indirect impacts to vegetation from livestock use. There would be an increase in vegetative biomass 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 resulting in less 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. Wind, wildlife and vehicular traffic would continue to distribute weed seeds and contribute to weed expansion. Big game animals would continue to use the allotments, particularly in the winter, resulting in hedging and decadence of sagebrush.

### **ANALYSIS OF PUBLIC LAND HEALTH STANDARD 3 FOR HEALTHY PLANT AND ANIMAL COMMUNITIES.**

The proposed action is located within the Burns to State Bridge (2006) and King Mountain (2011) Land Health Assessments. A determination of findings from the assessments was completed in December 2007 (Burns to State Bridge) and October 2012 (King Mountain) and found that the five allotments in this proposed action were considered to be meeting Standard 3 for healthy plant communities at the time of the assessments. No changes in grazing use have occurred since the previous assessments; therefore, continuation of grazing in the same manner and at the same level is not anticipated to result in a decline in the condition of vegetative communities on these allotments.

## RECREATION

### AFFECTED ENVIRONMENT.

The northern portions of the Deer Pen and River/Catamount allotments are within the Upper Colorado River Special Recreation Management Area (SRMA). According to the Recreation Management Plan for the Upper Colorado River, 1982, the management objectives for the SRMA are to provide recreation activity opportunities for floatboating and related activities (i.e. fishing, camping) in roaded natural and rural settings as defined by the Recreation Opportunity Spectrum by providing access to high value activity opportunities for floatboating, camping, picnicking, and fishing; facility development and visitor management designed to protect resource values, provide for visitor safety, and reduce user conflicts; and to continue providing these recreation opportunities within a 2-3 hour drive of the Denver metropolitan area.

In addition, the River/Catamount allotment contains the Catamount Bridge Recreation Site, which is a developed facility with campsites, vault restrooms, and a boat ramp.

### ENVIRONMENTAL CONSEQUENCES.

**Proposed Action.** The proposed action would not change the number of livestock, class of livestock, period of use and AUMs as what was indicated on the previous permit for all allotments. No known issues have occurred between current recreational users and the current grazing operations. Cattle have not been observed within the Catamount Bridge Recreation Site as it is bounded by the Colorado River Road, the Colorado River, and steep cliffs. This proposed action will not change the recreation settings for which the SRMA is being managed is will not impact (beneficially or negatively) recreation in those areas.

**No Grazing Alternative.** The no grazing alternative will have no impact to recreation in those areas and will be the same impact as the proposed action.

## SOCIO-ECONOMICS

### AFFECTED ENVIRONMENT.

**Social Conditions.** Public 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 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 2014 is \$1.35 per AUM, the same level as it was in 2013 (BLM 2014a).

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 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 and Eagle counties by 1475 AUMs. 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 *Soil Survey of Aspen-Gypsum Area, Colorado, Parts of Eagle, Garfield and Pitkin Counties* indicate 42 soil map units occur within the proposed allotments (NRCS 1992). The NRCS soil map unit descriptions (NRCS 2014) are provided below for the dominant soil types only:

Ansel-Anvik association (9) – This soil map unit is found on fans, foot slopes, and mountainsides at elevations ranging from 7,500 to 9,500 feet and on slopes of 25 to 45 percent. Approximately 70 percent of this unit is Ansel soil and 20 percent Anvik soil with 10 percent consisting of other soil types. The Ansel soil is deep, well drained, and formed in alluvium derived from material of mixed mineralogy. Runoff for this soil is rapid and the water erosion hazard is moderate to severe. The Anvik soil is deep, well drained, and formed in alluvium and colluvium derived from material of mixed mineralogy. Runoff for this soil is rapid and the water erosion hazard is moderate to severe.

Cushool-Rentsac complex (25) – This soil map unit is found on mountains and mesa side slopes at elevations ranging from 6,200 to 7,600 feet and on slopes of 15 to 65 percent. Approximately 45 percent of this soil map unit is Cushool soil and 40 percent Rentsac soil. The Cushool soil is moderately deep, well drained, derived from sandstone and shale, and is found on slopes of 15 to 50 percent. Surface runoff for this soil is rapid and the erosion hazard is classified as severe. The Rentsac soil is shallow, well drained, derived from sandstone, and is found on slopes of 25 to 65 percent. Surface runoff for this soil is rapid and the erosion hazard is classified as severe.

Forelle-Brownsto complex (44) – This soil map unit is found on mountains and benches at elevations ranging from 6,500 to 7,500 feet and on slopes of 12 to 25 percent. Approximately 55 percent of this unit is Forelle soil, 30 percent Brownsto soil, and the other 15 percent a mixture of several soil types. The Forelle soil is deep, well drained and is derived from sedimentary rock alluvium. Surface runoff is rapid and the water erosion hazard is moderate to severe. The Brownsto soil is deep, well drained and is derived from calcareous sandstone and basalt alluvium. Surface runoff is rapid and the water erosion hazard is moderate.

Torriorthents-Camborthids-Rock outcrop complex (104 and 105) – This soil map unit occurs on south-facing mountainsides, hills, and ridges with slopes ranging from 6 to 95 percent.

Approximately 45 percent of this unit is Torriorthents, 20 percent Camborthids, and 15 percent Rock outcrop. The Torriorthents are shallow to moderately deep, well drained, and are derived from sedimentary rock. Surface runoff is rapid and the water erosion hazard is severe. The Camborthids are shallow to deep, well drained, and are derived from sandstone, shale, and basalt. Surface runoff is rapid and the water erosion hazard is severe. The Rock outcrop component of this unit consists of exposed sandstone, shale, and basalt. This soil map unit is used primarily for wildlife habitat.

Woodhall gravelly loam (112) – The Woodhall component makes up 80 percent of the map unit. Slopes are 6 to 50 percent, extremely stony. This component is on ridges, mountains. The parent material consists of alluvium derived from sandstone and/or residuum weathered from sandstone and/or alluvium derived from basalt and/or residuum weathered from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well-drained. Water movement in the most restrictive layer is moderately high.

#### **ENVIRONMENTAL CONSEQUENCES.**

***Proposed Action.*** Grazing activities could result in direct soil compaction and displacement that increase the likelihood of erosional processes, especially on steep slopes and areas devoid of vegetation. Soil detachment and sediment transport are likely to occur during runoff events associated with spring snowmelt and short-duration high intensity thunderstorms. Indirect impacts include soil erosion and gulying. Based on existing soil conditions and generally good vegetative cover; the likelihood of livestock grazing contributing to excessive soil degradation and transport to nearby drainages is not expected. Grazing activities on the proposed allotments would not likely create long term affects that would compromise soil stability on a large scale. Small-scale and localized disturbances would likely be limited to trailing and watering areas. In addition, allowing for adaptive management may provide better protection of soils and upland vegetation conditions.

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

#### **ANALYSIS OF PUBLIC LAND HEALTH STANDARD 1 FOR SOILS.**

The proposed action is located within the Burns to State Bridge and King Mountain Land Health Assessments. A determination of findings from the assessments was completed in December 2007 (Burns to State Bridge) and October 2012 (King Mountain) and found that the five allotments in this proposed action were considered to be meeting Standard 1 for upland soils, with only slight to moderate departures from expected conditions (BLM 2007, 2012). No changes in grazing use have occurred since the previous assessments; therefore, continuation of grazing in the same manner is not anticipated to result in a decline in the long-term soil conditions of these allotments.

## WATER QUALITY

### AFFECTED ENVIRONMENT.

Assessment of water quality impacts and Clean Water Act compliance for these grazing permit renewals included a review of the State of Colorado's *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 2011). Streams within the proposed allotments are located within the Upper Colorado River Basin, Segment 7a, which is classified for Aquatic Life Cold 1, Recreation 2, Water supply and Agriculture. A comprehensive list of physical, biological, inorganic and metals standards have been developed to protect those uses. In addition, the State of Colorado has developed a *303(d) List of Water Quality Limited Segments Requiring TMDLS and Monitoring and Evaluation List* (CDPHE 2010) that identifies stream segments that are not currently meeting water quality standards with technology based controls alone. No streams in the proposed allotments are on this list suggesting water quality standards are currently being met.

The Sunnyside Individual allotment (#08611) lies within the Cabin Creek watershed. The western border of the allotment is formed in part by Cedar Creek, the center portion of the allotment is drained by Pump Gulch, and the eastern allotment border is formed by Sunnyside Creek. Both Sunnyside and Cedar Creeks have perennial flow, while flow in Pump Gulch is limited to snowmelt periods and runoff generated by convective summer storms. The perennial streams have seasonal variation of flow, with highest flow occurring in the spring from snowmelt. Pump Gulch may experience flood flows from either snowmelt or convective storms. Water quality data were collected on both Cedar and Sunnyside Creeks in the mid 1970s. The data indicates very good water quality with low total dissolved solids, slightly alkaline pH, and low suspended sediment levels. Stream chemistry is generally of a calcium bicarbonate type. Grazing would occur for three weeks in May, generally during the runoff period. Consequently there would be good water available which would facilitate good livestock distribution. With the livestock removed from June first through the balance of the growing season, good vegetative recovery would occur providing for good watershed protection. Additionally the riparian vegetation along the streams would trap sediment that might be produced from areas that the livestock congregate. No water quality impairments of standards or beneficial uses established for these streams within or downstream of the allotment is anticipated with grazing this allotment.

The Deer Pen allotment (#08616) is drained by a series of unnamed ephemeral and intermittent tributaries to the Colorado River for all but the extreme southeastern portion of the allotment. That area is within the Castle Creek watershed. Many of the unnamed tributaries are northwest trending and only carry runoff during snowmelt periods and during or shortly following convective storms. No water quality is available for those drainages because they are generally dry. It is predicted to be similar to Castle Creek however. Castle Creek is a perennial stream with less than a quarter mile flowing within the allotment. The highest flows generally occur from spring snowmelt. Three samples were collected on Castle Creek in the early 1980s. Those data were collected during the low flow period and indicate good quality waters with specific conductance averaging approximately 650 microsiemens per centimeter (uS/cm), pH 9.1,

dissolved oxygen 9.3 milligrams per liter (mg/l), and alkalinity 221 mg/l. Several miles of the Colorado River forms the northwest border of the allotment. However the steepness of slope, railroad tracks and riparian vegetation along the river limits grazing in that area.

The Newcomer allotment (#08617) lies just south of the Colorado River near Burns, Colorado. Most of the allotment is private with two small parcels of public land on the south end. No perennial water flows within the allotment; however there is an irrigation ditch that carries water from Castle Creek to the private land. With the watershed being ephemeral, sediment that could be produced by livestock use would likely not be transported to perennial waters or the Colorado River.

The West Castle allotment (#08620) lies within the Big Alkali Creek watershed. Primary tributaries within the allotment are Castle, Norman, and Catamount Creeks. Big Alkali Creek is a perennial stream that was gaged by USGS for five years (station #09060950- Big Alkali Creek below Castle Cr near Burns CO). Data collected at this station indicated season variation of flow, with April, May, and June producing the greatest volume of flow, while base flow conditions occurred during the winter months. Occasional flood flows resulted from thunderstorm runoff. Average flow was 10.1 cubic feet per second (cfs), with highest flow of record occurring May 24, 1984 at 168 cfs, and minimum daily occurring October 2, 1981 at 0.31 cfs. USGS and BLM have collected some water quality samples in Big Alkali Creek. Those data indicate the influence of the Mancos shale geology especially in the lower basin. Specific conductance ranged from approximately 500 uS/cm during snowmelt periods to up over 1200 uS/cm during baseflow conditions. Measurements of pH indicated slightly alkaline water with a mean value of 8.4. While no suspended sediment data were collected, two turbidity samples were collected. Those data indicate moderately turbid waters. Castle Creek water quality was previously described. Three samples were collected on Catamount Creek in the early 1980s, all during the low flow period. Those data indicate good water quality with specific conductance averaging 618 uS/cm, pH 8.6, alkalinity of 150 mg/l, dissolved oxygen 7.8, and turbidity ranging from extremely low to a moderate 62 NTUs. While no water quality data have been collected on Norman Creek, it is projected to be similar to that of Castle and Catamount Creeks. Both Catamount and Castle Creeks have a perennial flow pattern similar to Big Alkali Creek. Norman Creek has intermittent or seasonal flow, with spring snowmelt offering most of the annual flow.

#### **ENVIRONMENTAL CONSEQUENCES.**

**Proposed Action.** Direct impacts to water quality from livestock grazing could be elevated turbidity and fecal coliform, if cattle begin to congregate near water sources for extended periods of time. Hoof action can cause surface compaction, stream bank shearing, elevated erosion rates and subsequent deterioration of water quality. Indirect impacts may result from excessive utilization in upland watershed areas reducing effective vegetative cover, elevating erosion potential and increasing sediment delivery to streams, which could negatively impact water quality. The proposed stocking rates and duration are not expected to have a negative effect on water quality. Grazing would occur using a pasture rotation system. Spring/summer growth would occur prior to grazing and the areas rested allowing for vegetative recovery prior to the vegetation going dormant in fall/winter. There may be some localized areas of impact where livestock congregate or water. In those areas, vegetative cover could be reduced and soil

protection compromised. These sites could then serve as sediment sources. Sediment that is produced is not projected to move long distances within the stream systems. The overall good vegetative cover in the allotments and riparian vegetation along the perennial streams would likely trap much of that soil before it reached live water. This, coupled with the long transport distance, suggests the likelihood of measurable sediment and salinity loading to the Colorado River in very low. Finally, allowing for adaptive management may provide for better protection of upland and riparian vegetation and subsequently maintain water quality conditions.

**No Grazing Alternative.** Under this alternative, no livestock grazing would occur on these allotments and there would be no direct or indirect impacts to riparian vegetation from livestock. Trampling or removal of riparian vegetation may still occur from wildlife grazing. In addition, riparian functionality may be affected by existing roads and trails that exist throughout the allotment, which can be sources of sedimentation to riparian areas.

**ANALYSIS OF PUBLIC LAND HEALTH STANDARD 5 FOR WATER QUALITY.**

The proposed action is located within the Burns to State Bridge and King Mountain Land Health Assessments. A determination of findings from the assessments was completed in December 2007 (Burns to State Bridge) and October 2012 (King Mountain) and found that the five allotments in this proposed action were considered to be meeting Standard 5 for water quality at the time of the assessments (BLM 2007, 2012). No changes in grazing use have occurred since the previous assessments; therefore, continuation of grazing in the same manner is not anticipated to degrade water quality from current conditions across these allotments.

**WETLANDS AND RIPARIAN ZONES**

**AFFECTED ENVIRONMENT.**

Table 6 lists known riparian areas and their Proper Functioning Condition (PFC) assessment within each allotment:

**Table 6. Riparian Areas and their Proper Functioning Condition.**

Allotment	Year Assessed	Riparian Area Name	Miles <sub>1</sub>	Condition Rating
Sunnyside Individual	1995	Cedar Creek	0.87	PFC
	2011			
	1993	Sunnyside Creek	0.9	
	2011			
Deer Pen	1995, 2004 & 06	Colorado River	1.78	FAR downward PFC
	1997	Castle Creek (Lower)	0.2	
	2006			
Newcomer	n/a			
River-Catamount	1995, 2003 & 06	Colorado River	3.7	PFC
West Castle	1993	Castle Creek	2.7	FAR downward
	2006			FAR upward
	2006	Catamount Creek	1.2	PFC
	1994, 2006	Norman Creek	0.4	
	2006	Schlegel Lake Pond	2.4 ac	

Notes: 1. Distances shown in miles are those within the allotment. Lentic sites are measured in acres not miles.

## **ENVIRONMENTAL CONSEQUENCES.**

**Proposed Action.** The proposed action would allow grazing of livestock during spring and summer seasons yearly. There would be no fall or winter grazing. The direct impacts of livestock grazing on riparian vegetation include trampling of wet soil leading to soil compaction, soil erosion, plant defoliation, stream bank alteration and excessive forage utilization.

The spring time is when livestock tend to disperse farther and wider in search of the more succulent forage found throughout the uplands preferring firmer ground over most wet soils found in riparian bottoms. Livestock movements throughout the uplands are supported by water developments found in the uplands. Often not considered is that cattle prefer the warm microclimates found in the uplands over the colder bottoms associated with riparian bottom areas in the spring. The cool spring time temperatures also discourage livestock from loitering in riparian areas. Moreover, when these factors all combine, livestock tend to avoid riparian areas in the spring. However, impacts can occur if livestock are not sufficiently supplied with water in the uplands or are not managed properly.

As the warmer days of summer approach, livestock preference for upland forage wanes in favor of more palatable and succulent forage from riparian areas. The cooler temperatures and shade also draw in livestock when foraging behavior is replaced by loafing and ruminating. If left unmanaged, issues can arise if cattle tend to linger. Issues with summer grazing on West Castle are mitigated by the alternating rotation practiced yearly in which one of the two pastures would be used first and the second pasture last.

There are no riparian areas known in the Newcomer allotment.

Livestock grazing as described in the proposed action has been how these allotments were grazed over the last ten years. The PFC ratings on lower Castle Creek in Deer Pen has improved from a Functioning at Risk (trending downward) to Properly Functioning Condition in 2006, and the PFC rating on Castle Creek in the West Castle Allotment has improved from Functioning at Risk (trending downward) to an upward trend, see table 6. Both riparian areas showed improvement in PFC condition from the last assessment while being grazed under the proposed action. Livestock grazing as described allow for the attainment of Standard 2 for wetland and riparian zones as demonstrated by the PFC data.

**No Grazing Alternative.** Without the presence of livestock grazing on these allotments, over time it is anticipated that the riparian plant communities would reach late seral status. However, there is potential that some of the impacts associated with livestock grazing would be replaced by grazing/browsing of wild ungulates that may impact riparian areas.

## **ANALYSIS OF PUBLIC LAND HEALTH STANDARD 2 FOR RIPARIAN SYSTEMS.**

The proposed action would likely maintain or improve Colorado Public Land Health Standard 2 (riparian systems) within these five allotments. It is anticipated that land health conditions for these riparian systems would be maintained, if not improved, in the case for the West Castle Allotment because of range improvements and better livestock management.

*Sunnyside Individual Allotment.* Cedar Creek. This perennial steep A-channel creek is the western allotment boundary of this allotment. A Proper Functioning Condition (PFC) assessment was done in 1995 and in 2011, and this reach was found to be at PFC both times. There are at least two diversions of water from Cedar Creek. No issues with livestock grazing were raised during either assessment. Vegetation within this riparian area is very diverse with mature cottonwoods and a good understory despite the diversions of water for irrigation.

Sunnyside Creek. This perennial low grade B-channel creek is the eastern boundary of the allotment and is a source of water for irrigation in the area. A Proper Functioning Condition (PFC) assessment was done in 1995 and again in 2011. This creek has at least one water diversion. The ID team thought that low water flows in October were a result of the diversion upstream. Water backflows from irrigated areas were thought to be in balance with the system. Livestock usage in 2011 was reported as “minimal”.

*River-Catamount Allotment.* Colorado River was rated as being at PFC however the ID Team noted that the railroad and Colorado River Road were both encroaching upon the river limiting its functional floodplain. No mentions of impacts associated with livestock were noted during this assessment.

*Deer Pen Allotment.* The Colorado River comprises the west northwestern boundary of the allotment with a small (0.2 mile) segment of Castle Creek located along the east side. The Colorado River was rated at PFC with no issues raised regarding livestock grazing. The small section of Castle Creek was rated FAR with a downward trend in 1997 and PFC in 2006. This creek section is dominated by a dense stand of willows which are over 10 feet in height and becoming decadent. This was not the result of livestock grazing and more likely the result of old age.

*Newcomer Allotment.* There are no known riparian areas within the Newcomer Allotment; consequently there would be no impacts from the proposed action.

*West Castle Allotment.* This allotment contains riparian areas along Castle, Catamount and Norman Creeks in addition to lentic systems around several ponds and lakes (Schlegel Lake and Castle Creek Ponds). PFC assessments were conducted in 1993 and 1994 for Castle and Norman Creeks; however, Catamount Creek and the lentic systems were not assessed until 2006. Castle Creek was rated functioning at risk with a downward in 1993. Abandoned beavers dams that had washed out and livestock bank trampling were noted as causal factors resulting in the at risk rating. Salting locations near the creek were also noted. In 2006, Castle Creek was rated as functioning at risk with an upward trend. The banks were beginning to revegetate and become stabilized. Only the lower part of this reach was found to be at risk with the upper portions of the reaches at PFC. Fish were found in this creek. Both Catamount and Norman Creeks were rated at PFC based upon the 2006 assessment.

## WILD AND SCENIC RIVERS

### AFFECTED ENVIRONMENT.

The northern portions of the Deer Pen and River/Catamount allotments are within the Colorado River – State Bridge to Dotsero (Segment 6), which is eligible for inclusion in the National Wild and Scenic River System (NWSRS). Segment 6 has a preliminary classification of Recreational because of a road and railroad. It has the Outstandingly Remarkable Values (ORV's) of Scenic, Recreational (Floatboating, Scenic Driving), Geological, Wildlife, Historic, and Botanical. The BLM will manage this segment to protect its preliminary classification and ORV's.

### ENVIRONMENTAL CONSEQUENCES.

**Proposed Action.** The proposed action would not impact the ORV's as most of those values are either not affected by cattle use or are found outside of the allotments in other areas of the river segment. There is a silver buffaloberry community under the botanical ORV that is within the Deer Pen allotment, but it's at the bottom of a steep slope adjacent to the river that's covered in Doug-fir that livestock do not access. Cattle use also would not change the preliminary classification.

**No Grazing Alternative.** The no grazing alternative would have the same impact as the proposed action, which is no impact.

## WILDERNESS/WSAS/WILDERNESS CHARACTERISTICS

### AFFECTED ENVIRONMENT.

The Deer Pen allotment is partially within the Bull Gulch Wilderness Study Area (WSA). The West Castle allotment is mostly within the Castle Peak Wilderness Study Area. Both WSA's are managed as to not impair their suitability for preservation as wilderness, as mandated by Congress. In addition, the eastern portion of the River/Catamount allotment is within a small portion of the Pisgah Mountain unit that has been found to contain wilderness characteristics of sufficient size, naturalness, and outstanding opportunities for primitive, unconfined recreation and/or outstanding opportunities for solitude.

### ENVIRONMENTAL CONSEQUENCES.

**Proposed Action.** The proposed action would not impact the WSA's or Pisgah Mountain unit because of the travel restrictions design criteria that minimizes, or in most cases, eliminates any motorized use within these areas. In addition, any action that would improve a grazing related development would need additional analysis under a separate NEPA review.

**No Grazing Alternative.** The no grazing alternative would have the same impact as the proposed action, which means that no impact would occur.

## AQUATIC WILDLIFE & SPECIAL STATUS AQUATIC WILDLIFE

### AFFECTED ENVIRONMENT.

The Sunnyside Independent allotment contains a portion of Sunnyside Creek that runs along the eastern portion of the allotment and contains brook trout. The Deer Pen Allotment contains a small portion of Castle Creek which contains a small non conservation population of cutthroat trout, and the Colorado River which contains brown trout, rainbow trout, longnose sucker, white sucker, speckled dace, sculpin, and mountain whitefish. The river also contains small populations of two BLM sensitive species, bluehead sucker, and flannelmouth sucker. The Newcomer Allotment contains no perennial water and is primarily irrigated pasture. The Colorado River is located approximately 0.25 miles north of the allotment boundary and contains the same fish species assemblage noted for the Deer Pen Allotment. The River-Catamount Allotment includes portions of the Colorado River and Big Alkali Creek. Big Alkali Creek contains limited numbers of rainbow and brown trout near the confluence with the Colorado River as well as speckled dace. The Colorado River contains the same fish species assemblage noted for the Deer Pen Allotment. The West Castle Allotment contains portions of Castle Creek, Norman Creek, and Catamount Creek. Castle Creek contains a small non conservation population of cutthroat trout. Norman Creek contains brook trout. Catamount Creek is believed to currently be fishless as recent sampling has resulted in the collection of no fish. The stream may have historically contained cutthroat trout. All perennial streams on these allotments contain aquatic insects including mayflies, stoneflies, and caddisflies among others.

### ENVIRONMENTAL CONSEQUENCES.

**Proposed Action.** The proposed action calls for the grazing of cattle in early summer on the Sunnyside Individual, Deer Pen, Newcomer, and River-Catamount allotments, and in mid to late summer in two separate pastures on the West Castle Allotment as noted below.

Allotment Name and Number	Livestock Kind and number		Periods of Use	Percent Public Land
Sunnyside Individual No. 08611	136 Cattle		05/10 to 05/31	100
Deer Pen No. 08616	449 Cattle		05/01 to 06/30	100
Newcomer No. 08617	6 Cattle		05/15 to 06/14	60
River-Catamount No. 08605	50 Cattle		05/01 to 06/15	100
West Castle No. 08620	Lower pasture	200 Cattle	07/01 to 07/31	100
	Upper pasture	200 Cattle	08/01 to 08/31	100

Given the elevations of these allotments, the proposed grazing schedules provide some growing season rest and plant recovery periods. This should help to maintain upland vegetation condition and maintain good vegetative ground cover which should reduce the likelihood of bare ground and increased erosion potential and associated sedimentation and turbidity impacts on fish and aquatic insects. Livestock concentration along identified streams could impact fish and aquatic insects by reducing streamside vegetation/cover, bank alterations, soil compaction, and increased sedimentation and turbidity. However, riparian habitat is largely in good condition within these allotments suggesting that these impacts are limited and site specific. Spring spawning fish such

as cutthroat trout and rainbow trout could be slightly impacted by spring grazing as livestock concentrating in streams or the Colorado River could incidentally trample redds (eggs in the gravel). This impact would be site specific and limited in scope.

Several other actions are occurring within the watershed where these allotments reside including additional livestock grazing, recreation, and water diversions and irrigation, among others. Continued livestock grazing as proposed would have limited cumulative effects to aquatic species and their habitats as sufficient growing season rest and recovery time is afforded which would reduce identified potential impacts.

**No Grazing Alternative.** Under the No Grazing Alternative, livestock grazing would cease on the subject allotments. This would result in no negative impacts to aquatic species or their habitats. To the contrary, site specific areas affected by impacts identified in the proposed action would improve over time. This alternative would result in slightly reduced cumulative/watershed level effects to aquatic species and their habitats as compared to the proposed action.

#### **ANALYSIS OF PUBLIC LAND HEALTH STANDARD 3 FOR AQUATIC WILDLIFE AND FISHERIES AND PUBLIC LAND HEALTH STANDARD 4 FOR SPECIAL STATUS AQUATIC SPECIES.**

**Proposed Action.** The identified grazing allotments are located within the Burns to State Bridge (2006) and King Mountain (2011) Land Health Assessment watersheds. A determination of findings from the assessments was completed in December 2007 (Burns to State Bridge) and October 2012 (King Mountain) and found that the five allotments in this proposed action were considered to be meeting Standards 3 and 4 for all aquatic species and their habitats at the time of the assessments. Additionally, riparian areas with properly functioning condition (PFC) assessments associated with identified aquatic habitats showed good or improving conditions from 1993-2011. Since aquatic populations are closely tied to the overall health of their environment, it is likely that the proposed action would continue to support healthy aquatic wildlife. Additionally, the aquatic species found within the proposed action area are widespread across the landscape and are resilient at the population level to potential impacts associated with proposed grazing levels.

**No Grazing Alternative.** The absence of livestock grazing would help to ensure the continued meeting of LH Standards 3 and 4 across these allotments. Aquatic wildlife would benefit from this alternative as they would not be exposed to potential effects identified and discussed above in the proposed action.

## **MIGRATORY BIRDS**

### **AFFECTED ENVIRONMENT.**

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the U.S. Fish and Wildlife Service (USFWS) to “identify species, subspecies, and populations of all migratory

nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973.” *Birds of Conservation Concern 2008* (<http://www.fws.gov/migratorybirds/reports/BCC2008/BCC2008m.pdf>) is the most recent effort to carry out this mandate. The conservation concerns may be the result of population declines, naturally or human-caused small ranges or population sizes, threats to habitat, or other factors. The primary statutory authority for *Birds of Conservation Concern 2008* (BCC 2008) is the Fish and Wildlife Conservation Act of 1980 (FWCA), as amended. Although there are general patterns that can be inferred, there is no single reason why any species was is on the list. The Glenwood Springs Field Office is within the Southern Rockies/Colorado Plateau Bird Conservation Region (BCR). The 2008 list include the following birds: Gunnison Sage Grouse, American Bittern, Bald Eagle, Ferruginous Hawk, Golden Eagle, Peregrine Falcon, Prairie Falcon, Snowy Plover, Mountain Plover, Long-billed Curlew, Yellow-billed Cuckoo, Burrowing Owl, Lewis's Woodpecker, Willow Flycatcher, Gray Vireo, Pinyon Jay, Juniper Titmouse, Veery, Bendire's Thrasher, Grace's Warbler, Brewer's Sparrow, Grasshopper Sparrow, Chestnut-collared Longspur, Black Rosy-Finch, Brown-capped Rosy-Finch, and Cassin's Finch.

Habitat loss due to alteration or destruction continues to be the major reason for the declines of many species (<http://www.fws.gov/migratorybirds/reports/BCC2008/BCC2008m.pdf>). When considering potential impacts to migratory birds the impact on habitat, including: 1) the degree of fragmentation/connectivity expected from the proposed project relative to before the proposed project; and 2) the fragmentation/connectivity within and between habitat types (e.g., within nesting habitat or between nesting and feeding habitats. Continued private land development, surface disturbing actions in key habitats (e.g. riparian areas) and the proliferation of roads, pipelines, powerlines and trails are local factors that reduce habitat quality and quantity.

The CRVFO planning area provides both foraging and nesting habitat for a variety of migratory birds that summer, winter, or migrate through the area. The habitat diversity provided by the broad expanses of sagebrush, mixed mountain shrub, aspen, pinyon-juniper woodlands, other types of coniferous forests, and riparian and wetland areas support many bird species. The pinyon jay is characteristically found in pinyon/juniper woodlands and the Brewer's sparrow (*Spizella breweri*) is found within sagebrush habitats. Other Birds of Conservation Concern may also occur locally. Many species of raptors (red-tailed hawks, golden eagles, northern goshawks, Cooper's hawks, kestrels and owls) not on the Fish & Wildlife Service's Birds of Conservation Concern list also could occur in the area.

#### **ENVIRONMENTAL CONSEQUENCES.**

**Proposed Action.** Limited bird count or species data exists for the area; however the greater concern is the continued fragmentation of habitat and losses of large blocks of contiguous habitat required by many bird species. No intentional take of native bird species is anticipated under the proposed action. Grazing by cattle could result in the accidental destruction of ground nests through trampling. This impact is expected to be minimal and isolated and would not influence populations of migratory birds on a landscape level. Given current overall existing habitat condition, livestock grazing, as proposed, will not negatively affect the degree of fragmentation/connectivity expected relative to the existing condition of the allotment and the fragmentation/connectivity within and between habitat types (e.g., within nesting habitat or

between nesting and feeding habitats) would also likely not change. Overall it is unlikely that, livestock grazing in both numbers and duration, as proposed would not reduce the extent or quality of habitat available for migratory bird breeding functions.

**No Grazing Alternative.** Under this alternative, no livestock grazing would occur on these allotments and there would be no direct or indirect impacts to migratory birds from livestock use. This alternative would leave more residual plant growth and would benefit all migratory bird species with a possible exception of the Brewer's sparrow that may benefit from maintained grass and shrub heights and densities. A no grazing alternative would leave residual growth and the year's vegetative growth that would support habitat cover and nesting material necessary for breeding behavior.

## **SENSITIVE, THREATENED, AND ENDANGERED WILDLIFE**

### **AFFECTED ENVIRONMENT.**

Bald Eagle (*Haliaeetus leucocephalus*). On June 28, 2007 the Department of Interior took the Bald Eagle off the Endangered Species List. The Bald Eagle remains on the BLM Sensitive list and reserves protections under the Bald and Golden Eagle Protection of 1940 for "take" of eagles. Winter habitat associated with some of these permit renewals represents foraging grounds for prey and carrion prior and during breeding and nesting time frames from mid-January through mid-February. River/Catamount allotment has 297 acres of winter habitat and Deer Pen has 478 acres of winter habitat. Bald Eagles are commonly seen along the Upper Colorado River year round.

Canada Lynx (*Lynx canadensis*). The entire West Castle allotment is within the Castle Peak landscape linkage area. Deer pen has 6,338 acres (80% of total BLM owned allotment) within the same linkage. A "linkage area" is defined as habitat that provides landscape connectivity between blocks of habitat that provide movement opportunity for lynx. These areas are to be managed as broad areas of habitat where both lynx and associated prey species can find food, shelter and security. (LCAS Revised definition, Oct. 2001). The Glenwood Springs Field Office completed informal programmatic consultation on the Grazing Program and determined that continued Livestock Grazing "May Affect, but is Not Likely to Adversely Affect", Canada Lynx during the latest permit renewal for these allotments. The U.S. Fish and Wildlife Service concurred with this determination via a Biological Opinion dated December 4, 2003.

Greater Sage-grouse (*Centrocercus urophasianus*). The greater sage-grouse, a species restricted to sagebrush rangelands in western North America, is declining across much of its range (CGSGCP 2008). In 2010, the U.S. Fish and Wildlife Service (USFWS) added the greater sage-grouse to the Endangered Species Act "Candidate" list. The reason for the listing is tied to reduced habitat quality and quantity throughout its range. This local sage-grouse population in the area of the proposed grazing permits is small (<500 birds) and represents the very southeastern range of the bird's habitat, which leaves it vulnerable to extirpation.

The North Eagle/South Routt Greater Sage-grouse Working Group developed a specific conservation plan that has identified issues contributing to this population's general decline including: powerlines/utilities, habitat change (pinon-juniper woodland encroachment), disease, pesticides, land use changes and residential development, reservoir development and other water related issues, recreation, predation, grazing (both wild and domestic), and hunting (NESRGSGWG 2004). Over 2,000 acres of vegetation treatments have been conducted by BLM since the development of the North Eagle/ South Routt conservation plan, primarily in the Deer Pen allotment to improve habitat conditions for sage grouse.

Colorado Parks and Wildlife developed a GIS dataset for the Greater Sage-grouse identifying Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH) within Colorado. This data is a combination of mapped grouse occupied range, production areas, and modeled habitat (summer, winter, and breeding). PPH is defined as areas of high probability of use (summer or winter, or breeding models) within a 4 mile buffer around leks that have been active within the last 10 years. Isolated areas with low activity were designated as general habitat. PGH is defined as Greater sage-grouse Occupied Range outside of PPH. The BLM is signatory to the use of these maps when analyzing for sage grouse. The table below reflects these habitats within the permits proposed for renewal.

**Table 8. Preliminary Priority Habitat and Preliminary General Habitat**

Allotment	PPH acres/%	PGH acres
Deer Pen	4,200 (53%)	629
New Comer	90 (100%)	0
River/Catamount	460 (33%)	453
Sunny Side Ind.	338 (18%)	490
W. Castle	244 (5%)	606
<b>TOTALS</b>	<b>5,332</b>	<b>2,179</b>

There are two active leks in proximity to these grazing operations and monitored annually and appear to be stable in recent years. Two additional leks have become inactive within the last decade between the Rodeo Grounds and Boore Flats areas. Leks represent the focal point of the bird's lifecycle and most other stages occur within a four mile radius of leks (CGRSCP 2008). The proposed allotments exhibit an abundant potential for nesting, brood rearing, and wintering habitats.

**ENVIRONMENTAL CONSEQUENCES.**

**Proposed Action.** Bald Eagle (*Haliaeetus leucocephalus*). Current land health suggests that these allotments have sufficient vegetation structure and components necessary to support upland prey species and big game for Bald Eagle winter foraging opportunity. Impacts from the proposed action are not expected to impact Bald Eagles.

Canada Lynx (*Lynx canadensis*). Since there are no changes planned in the proposed action from the previous determination and recent land health determinations show achieving standards for threatened and endangered species under current management, there is no reason

to believe that the proposed action would adversely impact lynx. Under the proposed action it is expected that adequate residual vegetation would remain to support movement, prey forage opportunity, and security for lynx.

Land Health completed in December of 2007 determined that this allotment is meeting Standard 4 with regard to lynx. Vegetation was in good condition, and utilization was slight, particularly within the more forested habitats. Linkage habitat looked good with lots of dense dead and down material, numerous snags, and structural diversity.

Greater Sage-grouse ( *Centrocercus urophasianus* ). The BLM is signatory to the Colorado Greater Sage-Grouse Conservation Plan of 2008 (CGSGCP). Agency policy and procedures are also guided by the 2012 Instruction memorandum 2012-043 that incorporates interim conservation strategies for proposed activities that could affect Greater sage-grouse and their habitat until a long term strategy is developed.

Cattle grazing can reduce vegetation heights and covers needed to support sage grouse lifecycles. Although not documented, it is likely that nesting could take place on these permits. Livestock grazing could cause trampling of nests and reduce recruitment of this population; particularly in the allotments which initiate grazing in early May-June which coincides with nesting and early brood rearing time frames.

Chick survival has been identified as a population “sink”, where chicks are not surviving past the brood rearing period of the spring through summer (CGSGCP 2008). Causes for low chick recruitment can indirectly be attributed to overgrazing that would cause less residual herbaceous heights necessary for sage grouse survival such as concealment from predation. Low herbaceous heights may also cause avoidance behavior or brood abandonment near mesic areas that hold critical forb and insect production needed for brood development. Mesic areas are often grazed heavily and receive proportionately high soil compaction that impacts vegetation’s ability to grow. Adequate cover and forb production in these areas is essential as these riparian areas represent feeding grounds for developing broods.

Grass height and cover affect sage grouse nest site selection and success (Wakkinen 1990, Gregg 1991, Gregg et al. 1994, DeLong et al. 1995, Sveum et al. 1998 [CGSGCP 2008] ). Nesting selection is not uniform across the range and is documented that 80% of females will select nest sites within 4 miles of a lek site (Peterson 1980, Haulslitner 2003A. D. Apa, CPW, unpublished data, K. Giesen, retired CPW, unpublished data [CGSGCP 2008]). This represents PPH from the above table for a total of 5,332 acres that could potentially be directly impacted by trampling or indirectly by grazing as hatching typically starts around mid-May and continues through July.

As explained in the above livestock grazing management section, direct impacts should generally be avoided by grazing cattle outside of potential nesting habitat during nesting periods in Deer Pen. Sunnyside Individual and River Catamount have 18% and 33% PPH respectively and although difficult to quantify the effects in relation to populations, it is unlikely trampling impacts on nests would lead to a trend toward listing the Greater sage-grouse. Similarly, Newcomer allotment is of such a small size and number of AUM’s that nest trampling impacts are expected to be minimal. For habitat functionality, upland utilization limits and riparian

stubble heights (50% utilization of upland herbaceous vegetation and 4" stubble height for riparian) described in the permit terms and conditions should be adequate to conserve sage-grouse and meet their vegetative habitat needs within these allotments.

Although shrub densities and cover (primarily sagebrush) are also detrimental to the survival of grouse; it is not expected to be impacted by proposed grazing operations due to previous land health analysis (2007 and 2012) and current range conditions. Shrub densities have been recorded as adequate to high in density and meeting Land Health Standard 4 for T&E species.

**No Grazing Alternative.** Lynx and sage grouse would likely benefit from this alternative as lack of livestock grazing would allow for greater vegetation heights and densities. This scenario would increase prey species density potential and create more structural obscenity needed for lynx movement.

#### **ANALYSIS OF PUBLIC LAND HEALTH STANDARD 4 FOR SPECIAL STATUS TERRESTRIAL WILDLIFE.**

The proposed action is located within the Burns to State Bridge (2006) and King Mountain (2011) Land Health Assessments. A determination of findings from the assessments was completed in December 2007 (Burns to State Bridge) and October 2012 (King Mountain) and found that the five allotments in this proposed action were considered to be meeting Standard 4 for Threatened and Endangered wildlife species at the time of the assessments. Given the Land Health Assessment results and the application of the permit terms and conditions for these allotments it is unlikely that the proposed action would have negative effects to T&E species.

#### **TERRESTRIAL WILDLIFE**

##### **AFFECTED ENVIRONMENT.**

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

**Passerine Birds.** Passerine (perching) birds commonly found in the assessment area include: the American robin (*Turdus migratorius*), western scrub-jay (*Aphelocoma californica*), black-capped chickadee and mountain chickadee (*Poecile atricapilla* and *Poecile gambeli*), cedar waxwing (*Bombycilla cedrorum*), crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), sparrow spp., hummingbirds (*Selasphorus platycercus* and *Archilochus alexandri*), and black billed magpie (*Pica pica*).

Gallinaceous Birds. Gallinaceous (game birds) found in the area include: ring-necked pheasant (*Phasianus colchicus*), dusky grouse (*Dendragapus obscurus*), and wild turkey (*Meleagris gallopavo*).

Waterfowl. The Colorado River, numerous creeks, reservoirs, ponds, and associated riparian vegetation provide habitat for a wide variety of waterfowl and shorebirds. Common species include great blue heron (*Ardea Herodias*), Canada goose (*Branta Canadensis*), mallard (*Anas platyrhynchos*), green-winged teal (*Anas carolinensis*), common merganser (*Mergus merganser*), northern pintail (*Anas acuta*).

Birds of Prey. Birds of prey (eagles, falcons, hawks, and owls) may migrate, nest, or be year-round residents in the area. Common raptor species in the area include the: northern harrier (*Circus cyaneus*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), northern goshawk (*Accipiter gentilis*), red-tailed hawk (*Buteo jamaicensis*), Swainson's hawk (*Buteo swainsoni*), rough-legged hawk (*Buteo lagopus*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), flammulated owl (*Otus flammeolus*), western screech-owl (*Otus kennicottii*), great horned owl (*Bubo virginianus*), northern pygmy-owl, long-eared owl (*Asio otus*), boreal owl (*Aegolius funereus*), northern saw-whet owl (*Aegolius acadicus*).

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

Big Game. Big game occurring in the assessment area includes bighorn sheep, mule deer, moose, Rocky Mountain elk, pronghorn, and mountain lion. Mule deer and elk usually occupy higher elevations, forested habitat, during the summer and then migrate to sagebrush-dominant ridges and south-facing slopes at lower elevation in the winter. BLM lands provide a good portion of the undeveloped habitat available to big game. CPW classifies and maps big game habitats in Colorado. The ranges for big game generally overlap in the assessment area.

Game Management Units (GMU) 26 and 35 are included in the allotment areas. The population of big game is managed within GMUs to have an objective of healthy herd number of animals and manage those numbers by providing public hunting opportunities. Mule deer and elk are the primary game species within these units that require extensive management efforts. Mule deer are at herd objective for both 26 and 35. Elk are meeting objectives as well in 35, however are exceeding population objectives for GMU 26. The objective range is 32,000 to 39,000 and includes multiple GMU's including the greater Flat Top region. The 2012 herd estimate for GMU 26 was 42,890; alternatively, this population surplus is reflected in the 2012 King Mountain land health standards that describe hedging and overutilization of browse vegetation on big game winter ranges by wildlife use.

## **ENVIRONMENTAL CONSEQUENCES.**

**Proposed Action.** Grazing directly poses a trampling hazard for some smaller reptile/amphibious species as well as ground nesting birds. Indirectly, grazing has the potential to reduce both residual and current year's herbaceous growth that benefits terrestrial wildlife for both food and cover needs. The proposed permits terms and conditions show an acceptable number and overall distribution of cattle over time. Additionally the terms and conditions of the permit should leave an adequate amount of each growing season's herbaceous growth to provide food and cover needs for existing wildlife species. Grazing impacts to terrestrial species should be minimal under the proposed action.

**No Grazing Alternative.** This alternative would benefit most terrestrial species of wildlife in the form of food and cover. Lack of trampling and soil compaction involved with no grazing would also indirectly benefit all terrestrial wildlife species within these allotments. However, lack of grazing may negatively impact some ground nesting birds and other species such as raptors that benefit from edge habitats. In addition, lack of livestock grazing may further inflate unsustainable levels of elk that are already above herd objectives in GMU 26.

## **ANALYSIS OF PUBLIC LAND HEALTH STANDARD 3 FOR TERRESTRIAL WILDLIFE.**

The proposed action is located within the Burns to State Bridge (2007) and King Mountain (2012) Land Health Assessments. A determination of findings from the assessments found that the five allotments in this proposed action were considered to be meeting Standard 3 for plant and animal species at the time of the assessments. Based on LHA findings and no proposed changes from the previously issued permit, the proposed action would be expected to continue to meet Standard 3 for wildlife populations.

## **CUMULATIVE EFFECTS.**

*Soil and Water.* Cumulative impacts to soil and water resources can occur from existing roads , trails, and range improvements throughout the allotment. Roads and trails can contribute to increased surface runoff and accelerated erosion, especially where proper drainage is lacking. However, based on the limited land management that has occurred across the proposed allotments, it is expected that cumulative effects to soil and water are minor and unmeasureable.

## **TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED.**

The following Tribes individuals, organizations and agencies were consulted:

- Southern Ute Tribe,
- Ute Tribe of the Uinta and Ouray Bands,
- Ute Mountain Ute Tribe, and
- Susan Nottingham (grazing permittee)

## **LIST OF PREPARERS.**

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

<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Everett Bartz	Rangeland Management Specialist	NEPA lead, Range, Riparian
Carla DeYoung	Ecologist	Areas of Critical Environmental Concern, T/E/S Plants, Vegetation, Land Health Standards
Pauline Adams	Hydrologist	Soil, Water, Air Quality
Kimberly Miller	Outdoor Recreation Planner	Recreation, Wild and Scenic Rivers, Wilderness
Darren Long	Wildlife Biologist	T/E/S Terrestrial and Aquatic species/ Migratory birds/ Terrestrial and Aquatic wildlife.
Kristy Wallner	Rangeland Management Specialist	Invasive, Non-Native species (Noxious weeds)
Erin Liefeld	Archaeologist	Cultural Resources and Native American Religious Concerns

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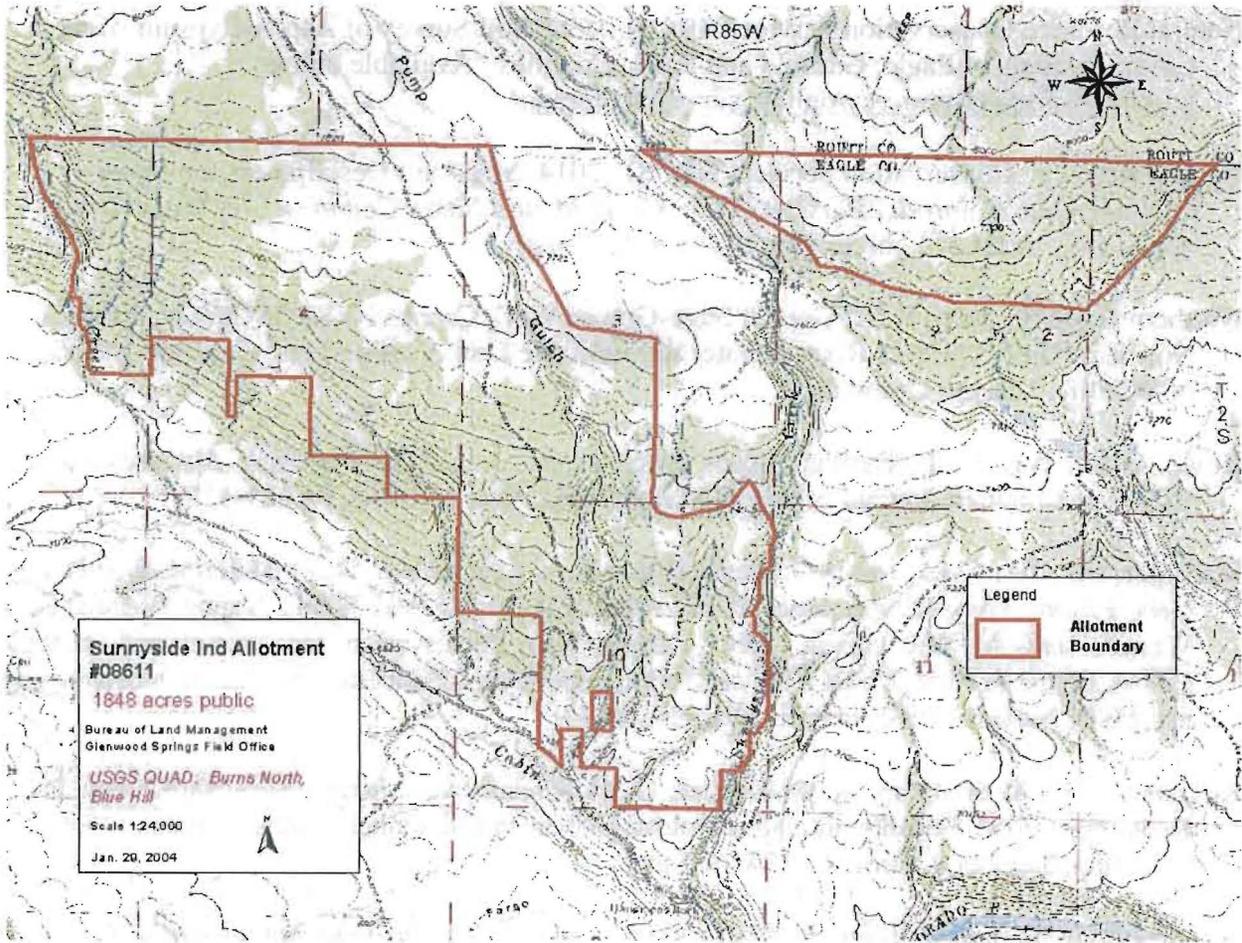
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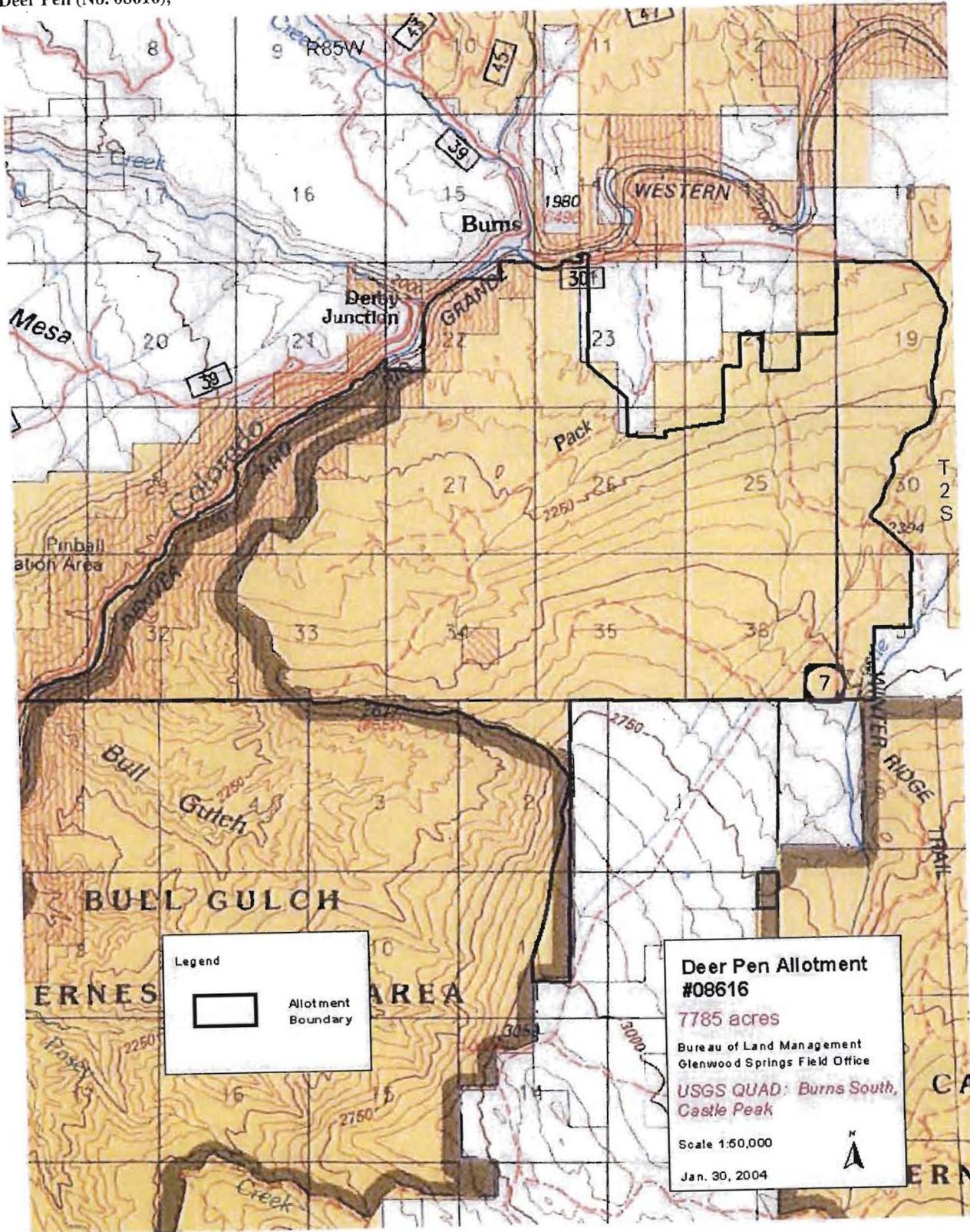
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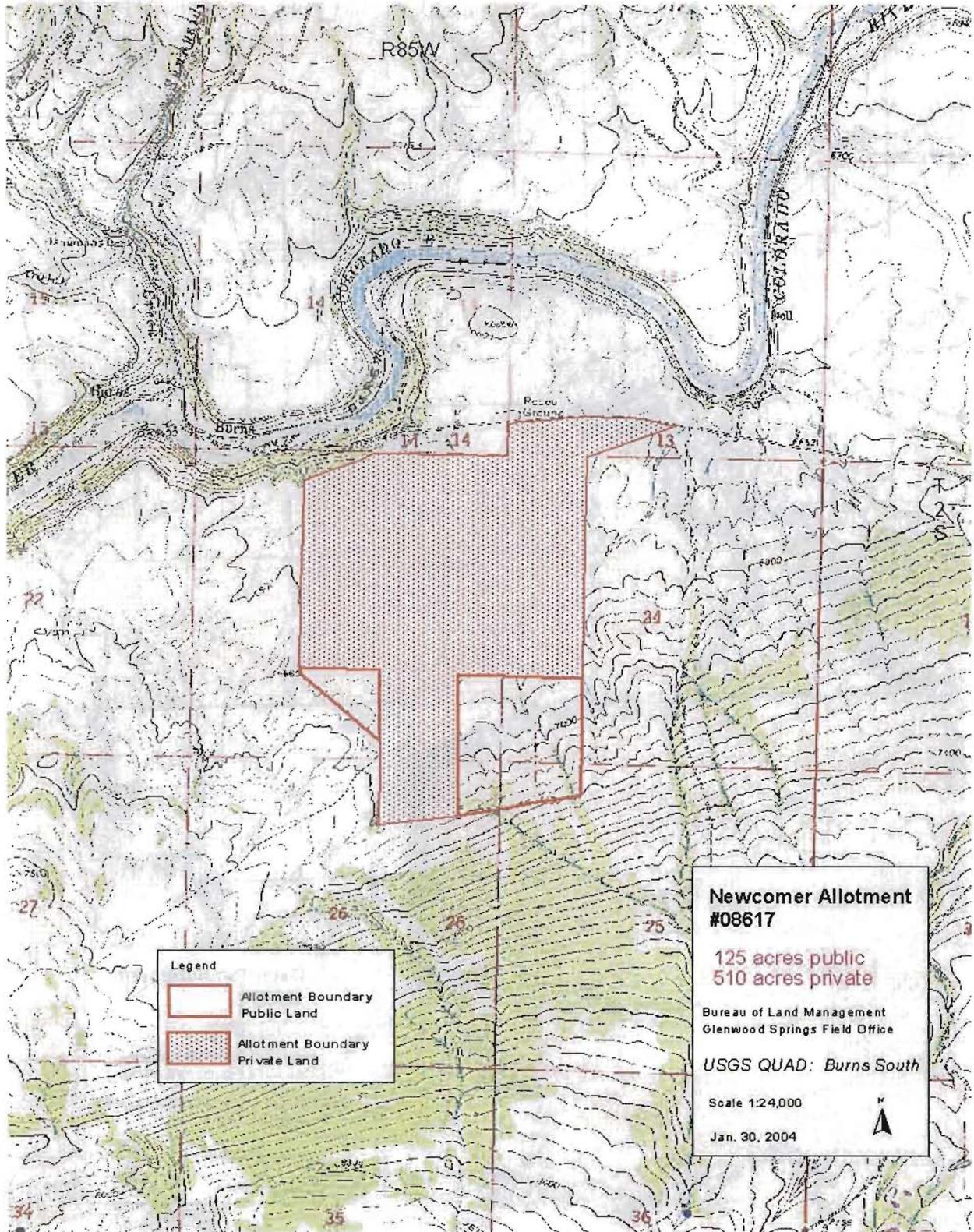
# Appendix A. Allotment Maps.

Sunnyside Ind.,

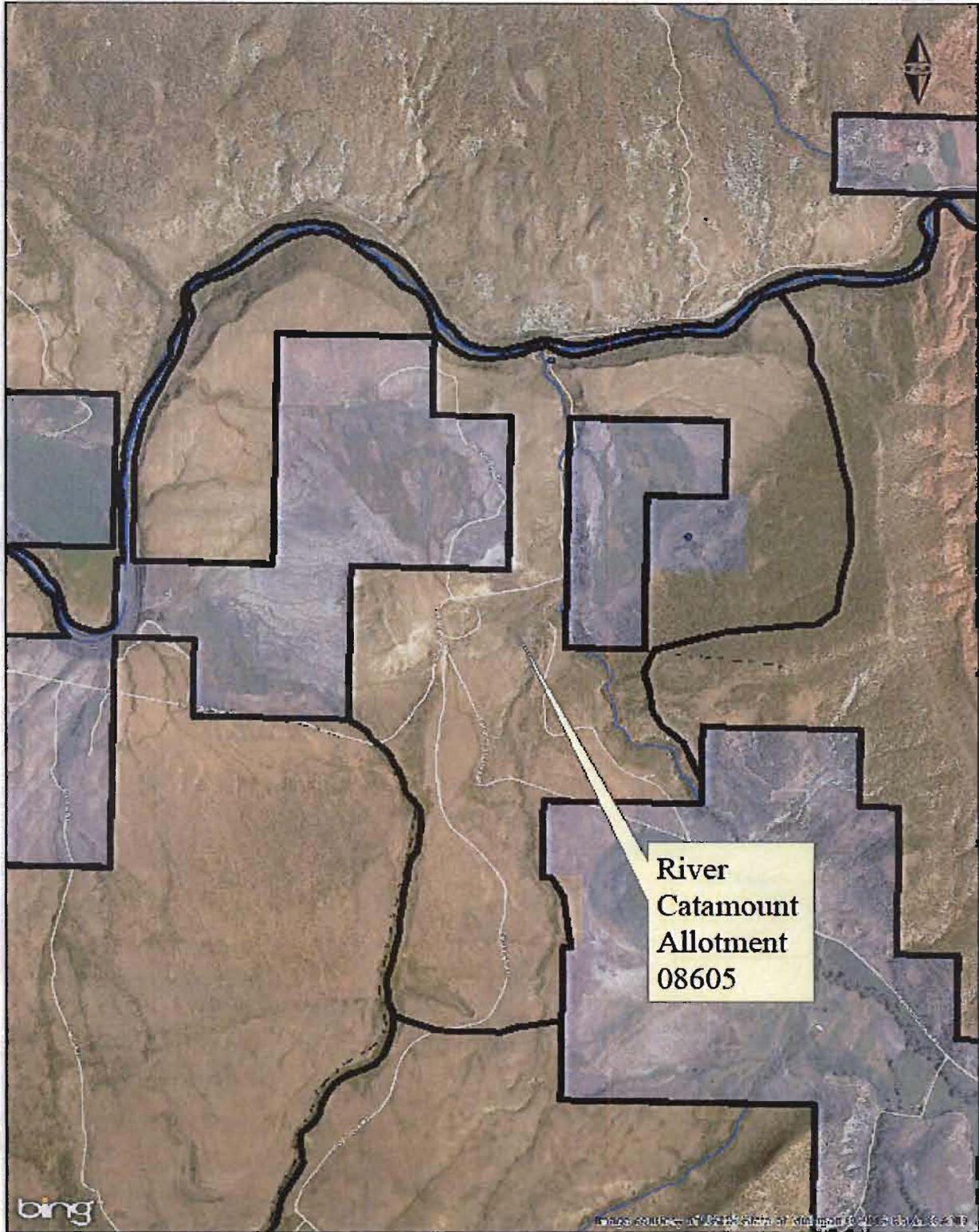


Deer Pen (No. 08616),

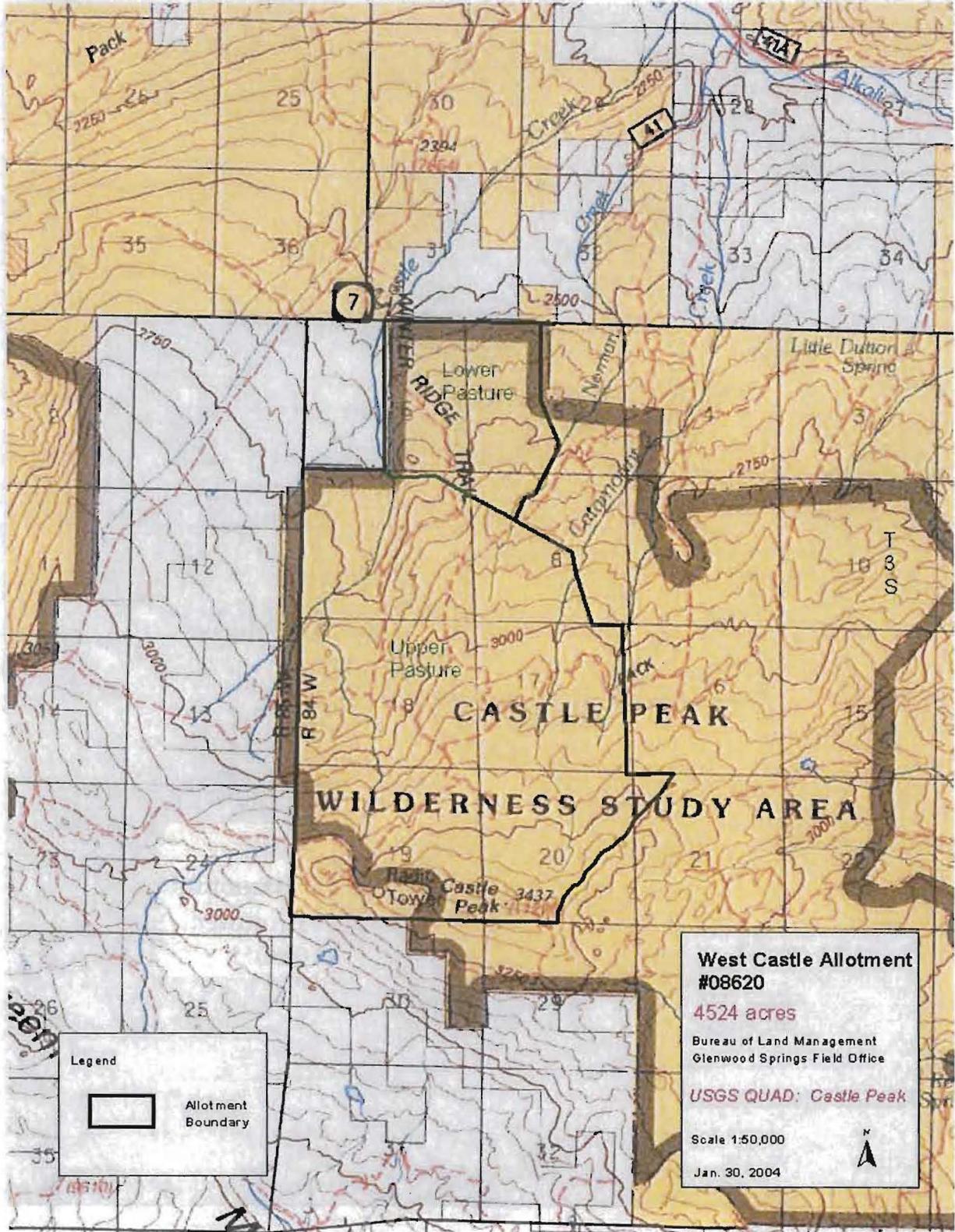




River-Catamount (No. 08605)



West Castle (No. 08620) allotments.



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

## FINDING OF NO SIGNIFICANT IMPACT

Grazing Permit Renewal on the Sunnyside Individual, Deer Pen,  
Newcomer, River-Catamount and West Castle Allotments

### DOI-BLM-N040-2014-0007-EA

#### **Finding of No Significant Impact**

I have reviewed the direct, indirect and cumulative effects of the actions documented in the EA for grazing permit issuance on Sunnyside Individual (No. 08611), Deer Pen (No. 08616), Newcomer (No. 08617), River-Catamount (No. 08605) and West Castle (No. 08620) allotments. The effects of the actions are disclosed in the Affected Environment and Environmental Effects section 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 action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short and long-term effects are relevant (40 CFR 1508.27):

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

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

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

Impacts associated with this livestock grazing permit issuance are identified and discussed in the Affected Environment and Environmental Effects section of the EA. The Proposed Action described in the EA would not have significant beneficial or adverse impacts on the resources identified and described in the EA.

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

The Proposed Action will not significantly affect public health or safety. The purpose of the 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.*

Portions of the Bull Gulch ACEC are found within the Deer Pen Allotment. Portions of the Castle Peak WSA are found within West Castle. The proposed action would not significantly affect the WSA or ACEC values.

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

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

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

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

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

This EA is specific to Sunnyside Individual, Deer Pen, Newcomer, River-Catamount and West Castle allotments. It is not expected to set precedent for future actions with significant effects or represent a decision in principle about a future management consideration in or outside of these allotments.

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

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

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

Of the 118 cultural resources identified within the five allotments, 17 have been determined eligible or potentially eligible for the National Register of Historic Places. There is potential for additional cultural resources to be documented within the five allotments, 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.

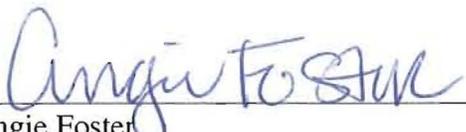
*9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

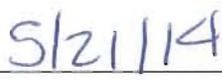
No Threatened or Endangered species or their habitat exist on this allotment.

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

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

Based upon the review of the test for significance and the environmental analyses conducted, I have determined that the Proposed Action 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.

  
\_\_\_\_\_  
Angie Foster  
Acting Authorized Officer  
Colorado River Valley Field Office

  
\_\_\_\_\_  
Date

