

U.S. Department of the Interior
Bureau of Land Management
Colorado River Valley Field Office
2300 River Frontage Road
Silt, CO 81652

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-N040-2011-0021-EA

CASEFILE NUMBER: 0501964

PROJECT NAME: Grazing Permit Renewal on the Bowen Isolated Tract Allotment.

LOCATION: Bowen Isolated Tract (T4S R92W portions of sec. 1 & 2). Refer to attached allotment map.

APPLICANT: Grazing Permittee

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

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

Mandatory Terms and Conditions (Scheduled Grazing Use):

| Allotment Name & No. | Livestock No. & Kind | Period of use | Percent Public Land | AUMs |
|----------------------------|----------------------|---------------|---------------------|------|
| Bowen Isolated Tract 18004 | 200 Cattle | 6/16 – 9/30 | 5 | 35 |

Grazing Preference (AUMS):

| Allotment Name & No. | Active | Suspended | Total |
|----------------------------|--------|-----------|-------|
| Bowen Isolated Tract 18004 | 38 | 0 | 38 |

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

- Maintenance of range improvements is required and shall be in accordance with all approved cooperative agreements and range improvement permits. Maintenance shall be completed prior to turnout. Maintenance activities shall be restricted to the footprint (previously disturbed area) of the project as it existed when it was initially constructed. The Bureau of Land Management shall be given 48 hours advance notice of any maintenance work that will involve heavy equipment. Disturbed areas will be reseeded with a certified weed-free seed mixture of native species adapted to the site.

- The permittee and all persons associated with grazing operations must be informed that any person who injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law. If in connection with allotment operations under this authorization any of the above resources are encountered, the proponent shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM authorized officer of the findings. The discovery must be protected until further notified in writing to proceed by the authorized officer.

Additional Background Information:

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

ALTERNATIVES CONSIDERED BUT ELIMINATED:

The No Grazing alternative has been eliminated from further consideration. No unresolved conflicts involving alternative use of available resources have been identified. For this reason, discontinuance of grazing use (No Grazing) will not be considered or assessed.

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

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

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

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

Name of Plan: Glenwood Springs Resource Management Plan.

Date Approved: Jan. 1984, revised 1988, amended in November 1991 - Oil and Gas Leasing and Development - Final Supplemental Environmental Impact Statement; amended Nov. 1996 - Colorado Standards and Guidelines; amended in August 1997 - Castle Peak Travel Management Plan; amended in March 1999 - Oil and Gas Leasing & Development Final Supplemental Environmental Impact Statement; amended in November 1999 - Red Hill Plan Amendment; amended in September 2002 – Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance; amended in June 2007 – Record of Decision for the Approval of Portions of the Roan Plateau Resource Management Plan Amendment; and amended in March 2009 - Record of Decision for the Designation of Areas of Critical Environmental Concern for the Roan Plateau Resource Management Plan.

Decision Number/Page: The action is in conformance with Administrative Actions (pg. 5) and Livestock Grazing Management (pg. 20).

Decision Language: Administrative actions states, “Various types of actions will require special attention beyond the scope of this plan. Administrative actions are the day-to-day transactions required to serve the public and to provide optimal use of the resources. These actions are in conformance with the plan”. The livestock grazing management objective as amended states, “To provide 56,885 animal unit months of livestock forage commensurate with meeting public land health standards.”

STANDARDS FOR PUBLIC LAND HEALTH:

The Colorado Standards for Public Land Health consist of 5 standards: upland soils, riparian systems, plant and animal communities, special status species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands.

A Formal Land Health Assessment was conducted in the Rifle Creek Watershed in 2001 which included the Bowen Isolated Tract allotment. At the time of the assessment, the allotment was found to be meeting all the Land Health Standards.

The impact analysis must address whether the proposed action would result in impacts which would improve, maintain or deteriorate land health conditions for each of the parameters found in the Standards for Public Land Health.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section provides a description of the human and natural environmental resources that could be affected by the proposed action and no action alternative. In addition, the section presents comparative analyses of the direct and indirect consequences on the affected environment stemming from the implementation of the various actions.

A variety of laws, regulations, and policy directives mandate the evaluation of the effects of a proposed action and alternative(s) on certain critical environmental elements. Not all of the critical elements that require inclusion in this EA are present, or if they are present, may not be

affected by the proposed action and alternative (Table 1). Only those mandatory critical elements that are present and affected are described in the following narrative.

In addition to the mandatory critical elements, there are additional resources that would be impacted by the proposed action and alternative. These are presented under **Other Affected Resources**.

Critical Elements

| Table 1. Critical Elements of the Human Environment | | | | | | | | | |
|------------------------------------------------------------|----------------|----|-----------------|----|------------------------------------|----------------|----|-----------------|----|
| <i>Critical Element</i> | <i>Present</i> | | <i>Affected</i> | | <i>Critical Element</i> | <i>Present</i> | | <i>Affected</i> | |
| | Yes | No | Yes | No | | Yes | No | Yes | No |
| Air Quality | X | | | X | Prime or Unique Farmlands | | X | | X |
| ACECs | | X | | X | Special Status Species* | X | | X | |
| Cultural Resources | | X | | X | Wastes, Hazardous or Solid | | X | | X |
| Environmental Justice | X | | | X | Water Quality, Surface and Ground* | X | | X | |
| Floodplains | | X | | X | Wetlands and Riparian Zones* | X | | X | |
| Invasive, Non-native Species | | X | | X | Wild and Scenic Rivers | | X | | X |
| Migratory Birds | X | | X | | Wilderness/ WSAs | | X | | X |
| Native American Religious Concerns | | X | | X | | | | | |

* Public Land Health Standard

Air Quality

Affected Environment: The closest Class I Airshed is the Flat Tops Wilderness Area located approximately 13 air miles to the northeast. The primary sources of air pollutants in the region are fugitive dust from unpaved roads and seasonal wildfires, as well as emissions from motor vehicles and natural gas operations. Throughout the planning area, ambient pollutant levels are typically below measurable limits, except for high short-term increases in PM₁₀ levels (primarily wind-blown dust), ozone, carbon monoxide and occasional peak concentrations of CO and SO₂ in the immediate vicinity of combustion equipment. Representative monitoring of air quality in the general area indicates that the existing air quality is well within acceptable Clean Air Act standards.

Environmental Consequences/Mitigation: Re-issuance of the livestock grazing permit will have little to no impact on air quality. Livestock grazing during dry/drought conditions may result in a very minimal increase in dust which would be localized to the area being grazed and would last for a short duration. No additional mitigation is required to protect air quality.

Cultural Resources and Native American Religious Concerns

Affected Environment: Grazing permit renewals are undertakings under Section 106 of the National Historic Preservation Act. Additional range improvements (e.g., fences, spring improvements) are subject to compliance requirements under Section 106 and will undergo standard cultural resources inventory and evaluation procedures. During Section 106 review, a cultural resource assessment (CRVFO #1011-14) was completed for the Bowen Isolated Tract Allotment on March 9, 2011 following 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, CO-2001-026, and CO-2002-029. The results of the assessment are summarized in the table below. A copy of the cultural resource assessment is available at the CRVFO.

Table 2.

| Allotment Number | Acres Inventoried at a Class III level | Acres NOT Inventoried at a Class III Level | Percent (%) Allotment Inventory data 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) |
|-------------------------------|----------------------------------------|--------------------------------------------|------------------------------------------------------|-------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 18004 Bowen Isolated Tract | 62.5 | 872.5 | 6% | 0 | No | 25 additional acres need to be inventoried to meet a 10% sample. 42% of the allotment has 30%+ slopes. |

Two Class III cultural resource inventories (CRVFO #s 1102-1 and 15408-1) have been conducted within this allotment. No cultural resources or Historic properties were identified. Historic properties are cultural or Native American resources that are considered eligible or potentially eligible for listing on the National Register of Historic Places. Additionally, no areas of Native American concern were identified. Undiscovered historic era sites within this allotment could represent a time frame from the late 1800's through the 1960's; Native American sites could represent a time range from 200 to 10,000 years before present. Based on available data surrounding this allotment, there is a low potential for undiscovered historic properties within the allotment due primarily to steep slopes and the heavy oak brush community.

Subsequent field visits, inventory, and periodic monitoring may have to be done to identify if 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.

At present, there are no known areas of Native American concern within this allotment. On November 15, 2010 the Colorado River Valley Field Office mailed an informational letter and an allotment map to the Ute Tribe (Northern Ute Tribe), Southern Ute Tribe, and the Ute Mountain Ute Tribe, identifying the proposed 2011 grazing permit renewals. No response has been received. If new data is disclosed, new terms and conditions may have to be added to the permit

to accommodate their concerns. The BLM will take no action that would adversely affect these areas or location without consultation with the appropriate Native American Tribes.

Environmental Consequences: The direct impacts that may occur where livestock concentrate include trampling, chiseling, and churning of site soils, cultural features, and cultural artifacts, artifact breakage, and impacts from standing, leaning, and rubbing against historic structures, above-ground cultural features, and rock art. Indirect impacts may include soil erosion, gulying, and increased potential for unlawful collection and vandalism, however the Discovery Stipulation and subsequent changes in grazing management should mitigate and minimize impacts. Continued grazing may cause substantial ground disturbance and may cause cumulative long term irreversible adverse effects to currently undiscovered historic properties. If historic properties are identified during field visits or inventories for this allotment, they will need to be assessed to determine if livestock are impacting these resources within the term of this permit. A **Conditional No Adverse Effect** has been made for this renewal, subject to cultural resource mitigation measures.

Mitigation: The cultural resource specialist should be involved in discussions for improvements, maintenance, supplemental feeding areas, etc to ensure that any undiscovered historic properties and areas of concern are avoided. Undiscovered historic properties and/or resources are 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. The BLM may 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.

Any person who, without a permit, injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law.

Invasive, Non-native Species

Affected Environment: The proposed action is to renew a term grazing permit on the Bowen Isolated allotment. A landscape wide noxious weed inventory has not been conducted on this allotment. Infestations of Houndstongue and Canada thistle are common around the area. No other noxious weeds are known to exist in the project area.

Environmental Consequences/Mitigation: Weeds generally germinate and become established in areas of surface disturbing activities. Livestock grazing can contribute to the establishment and expansion of noxious weeds through various mechanisms. Improperly managed grazing, (over-grazing), can cause a decline in desirable native plant species and ground cover which provides a niche for noxious weed invasion. In addition, noxious weed seed can be transported and introduced to new areas by fecal deposition or by seed that clings to the animal's coat. However, this affect is minimal as compared to other weed seed dispersal vectors such as vehicle routes and ground disturbing activities. Conversely, properly managed livestock grazing which does not create areas of bare ground and which maintains the vigor and health of native plant species, particularly herbaceous species, is not expected to cause a substantial increase in noxious weeds.

Since the proposed action was designed to sustain and/or improve land health, no significant impacts to non-native, invasive species are expected. Noxious and invasive plant species are not expected to radically increase as a result of the continuation of livestock grazing practices and most infestations will be isolated to watering facilities, salting areas, and other livestock high concentration locations.

Migratory Birds

Affected Environment: 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, oakbrush, aspen, pinyon-juniper woodlands, other types of coniferous forests and riparian and wetland areas support many bird species. Many species of raptors (red-tailed hawks, Cooper's hawks, kestrels and owls) not on the Fish & Wildlife Service's Birds of Conservation Concern list also could occur in the area. Raptor surveys have not been conducted in the area.

BLM Instruction Memorandum No. 2008-050 provides guidance toward meeting the Bureau of Land Management's (BLM) responsibilities under the Migratory Bird Treaty Act (MBTA) and the Executive Order (EO) 13186. The guidance directs Field Offices to promote the maintenance and improvement of habitat quantity and quality. To avoid, reduce or mitigate adverse impacts on the habitats of migratory bird species of conservation concern to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities.

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

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the U.S. Fish and Wildlife Service (USFWS) to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973." The "*BIRDS OF CONSERVATION CONCERN 2008*" (U.S. Fish and Wildlife Service 2009) is the most recent effort to carry out this mandate. The conservation concerns are the result of population declines - naturally or human-caused, small ranges or population sizes, threats to habitat, or other factors. Although there are general patterns that can be inferred, there is no single reason why any species was on the list. Habitat loss is believed to be the major reason for the declines of many species. When considering potential impacts to migratory birds the impact on habitat, including: 1) the degree of fragmentation/connectivity expected from the proposed project relative to before the proposed project; and 2) the fragmentation/connectivity within and between habitat types (e.g., within nesting habitat or between nesting and feeding habitats. Continued private land development, surface disturbing actions in key habitats (e.g. riparian areas) and the proliferation of roads, pipelines, powerlines and trails are local factors that reduce habitat quality and quantity for many species.

The Colorado River Valley Field Office (CRVFO) is within the Southern Rockies/Colorado Plateau Bird Conservation Region (BCR). The 2008 list of Birds of Conservation Concern are described in Table 3.

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

| Species | Habitat Description | Potential Occurrences in Project Area | Potentially Impacted |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------|
| Gunnison Sage-Grouse (<i>Centrocercus minimus</i>) | Sagebrush communities for hiding and thermal cover, food, and nesting; open areas with sagebrush stands for leks; sagebrush-grass-forb mix for nesting; wet meadows for rearing chicks. No found within the CRVFO. | Not Present | No |
| American Bittern (<i>Botaurus lentiginosus</i>) | Inhabits marshes and wetlands; ground nester. Summer resident in Colorado. | Not Present | No |
| Bald Eagle (<i>Haliaeetus leucocephalus</i>) | Bald eagles were removed from the federal threatened and endangered species list in 2007 but are still protected under the MBTA. Bald eagles occasionally summer in this region but usually winter (mid-Nov. to mid-April) along portions of the Colorado, Eagle and Roaring Fork Rivers and their major tributaries. Large mature cottonwood trees along the rivers and their major tributaries are used as roosting and perching sites, and these waterways provide the main food sources of fish and waterfowl. Upland habitats adjacent to these waterways are used as scavenging areas. | Occasional | No |
| Ferruginous Hawk (<i>Buteo regalis</i>) | Open, rolling and/or rugged terrain in grasslands and shrubsteppe communities; also grasslands and cultivated fields; nests on cliffs and rocky outcrops. Fall/ winter resident, non-breeding. | Not Present | No |
| Golden Eagle (<i>Aquila chrysaetos</i>) | Open country, grasslands, woodlands, and barren areas in hilly or mountainous terrain; nests on rocky outcrops or large trees. Year-round resident, breeding. | Occasional | No |
| Peregrine Falcon (<i>Falco peregrines</i>) | Open country near cliff habitat, often near water such as rivers, lakes, and marshes; nests on ledges or holes on cliff faces and crags. Spring/summer resident, breeding. | Not Present | No |
| Prairie Falcon (<i>Falco mexicanus</i>) | Open country in mountains, steppe, or prairie; winters in cultivated fields; nests in holes or on ledges on rocky cliffs or embankments . Spring/summer resident, breeding. | Not Present | No |
| Snowy Plover (<i>Charadrius alexandrinus nivosus/tenuirostris</i>) | Sparsely vegetated sand flats associated with pickleweed, greasewood, and saltgrass. Spring migrant, non-breeding. Spring migrant, non-breeding. | Not Present | No |
| Mountain Plover (<i>Charadrius montanus</i>) | High plain, cultivated fields, desert scrublands, and sagebrush habitats, often in association with heavy grazing, sometimes in association with prairie dog colonies ; short vegetation. | Not Present | No |
| Long-billed Curlew (<i>Numenius americanus</i>) | Lakes and wetlands and adjacent grassland and shrub communities. Spring/ fall migrant, non-breeding. | Not Present | No |

| Species | Habitat Description | Potential Occurrences in Project Area | Potentially Impacted |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------|
| Yellow-billed Cuckoo (<i>Coccyzus americanus</i>) | Riparian, deciduous woodlands with dense undergrowth; nests in tall cottonwood ,mature willow riparian, moist thickets, orchards, abandoned pastures. Summer resident, breeding. | Not Present | No |
| Burrowing Owl (<i>Athene cunicularia</i>) | Open grasslands and low shrublands often in association with prairie dog colonies; nests in abandoned burrows created by mammals; short vegetation. | Not Present | No |
| Lewis's Woodpecker (<i>Melanerpes lewis</i>) | Open woodland, often logged or burned, including oak, coniferous forest (often ponderosa), riparian woodland, and orchards, less often in pinyon-juniper. | Not Present | No |
| Willow Flycatcher (<i>Empidonax traillii</i>) | Riparian and moist, shrubby areas; winters in shrubby openings with short vegetation. Summer resident, breeding. | Not Present | No |
| Gray Vireo (<i>Vireo vicinior</i>) | Uncommon summer resident (primarily Mesa County). In habitats open pinyon-juniper woodlands. | Not Present | No |
| Pinyon Jay (<i>Gymnorhinus cyanocephalus</i>) | Common to abundant resident of pinyon-juniper woodlands. Year-round resident that travels broadly in flocks. | Present | No |
| Juniper Titmouse (<i>Baeolophus ridgwayi</i>) | Pinyon-juniper woodlands, especially juniper; nests in tree cavities. Year-round resident, breeding. | Unlikely | No |
| Veery (<i>Catharus fuscescens</i>) | Dense riparian thickets and hillside brush near streams. Uncommon spring/fall migrant in Eastern Colorado. | Not Present | No |
| Bendire's Thrasher (<i>Toxostoma bendirei</i>) | Desert, especially areas of tall vegetation, cholla cactus, creosote bush and yucca, and in juniper woodland Possible summer resident. | Not Present | No |
| Grace's Warbler (<i>Dendroica graciae</i>) | Breeds in ponderosa pine forests. Uncommon summer resident in southwest Colorado. | Not Present | No |
| Grasshopper Sparrow (<i>Ammodramus savannarum</i>) | Open grasslands and cultivated fields. Spring migrant, non-breeding. | Not Present | No |
| Chestnut-collared Longspur (<i>Calcarius ornatus</i>) | Open grasslands and cultivated fields. Spring migrant, non-breeding. | Not Present | No |
| Black Rosy-Finch (<i>Leucosticte atrata</i>) | Open country including mountain meadows, high deserts, valleys, and plains; breeds/ nests in alpine areas near rock piles and cliffs. Winter resident, non-breeding. | Not Present | No |
| Brown-capped Rosy-Finch (<i>Leucosticte australis</i>) | Alpine meadows, cliffs, and talus and high-elevation parks and valleys. Summer resident, breeding. | Not Present | No |
| Cassin's Finch (<i>Carpodacus cassinii</i>). | Open montane coniferous forests; breeds/ nests in coniferous forests. Year-round resident, breeding. | Not Present | No |
| Brewer's Sparrow (<i>Spizella breweri</i>) | Summer resident that primarily breeds in sagebrush-grass stands and shrublands. Migrant at low elevations. | Addressed under Special Status Terrestrial Wildlife | |

Environmental Consequences/Mitigation: Livestock grazing can alter vegetation structure, composition, and function. Effects on migratory birds are dependent on the species of interest and may be adverse or beneficial depending on grazing timing, frequency, and intensity. If livestock remain in a pasture too long, long-term carrying capacity for both livestock and wildlife may be severely reduced. Aerial, bark and canopy insectivores may be less influenced

by grazing than species feeding on nectar, insects, or seeds in the understory or on the ground. Birds may be displaced as a result of fence and pond construction/maintenance and/or grazing. Trampling of nests, eggs, or young could occur.

Grazing (sheep or cattle) at up to 50% of current year's growth would be expected to maintain vertical and horizontal vegetative structure and complexity where it presently exists. Grazing livestock for short periods of time as proposed would allow for herbaceous and woody plant recovery and regrowth following defoliation. No current issues between migratory birds and grazing are known to occur on the allotment. It is unlikely that renewal of the term grazing permit, authorizing the same (1) number/kind of livestock, (2) period of use, (3) percent public land and (4) AUMS; would influence migratory bird populations locally or on a landscape level.

Special Status Plant Species (includes an analysis of Public Land Health Standard 4)

Affected Environment: Table 4 summarizes the latest species list (USFWS 2010) from the U. S. Fish and Wildlife Service for federally listed, proposed, or candidate plant species and the Colorado BLM State Director's Sensitive Species List (BLM 2009) for plant species that may occur within the CRVFO in Garfield County and be impacted by the proposed action.

| Table 4. Federally Listed, Proposed or Candidate Plant Species | | |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Species | Habitat/Range | Occupied/Potential Habitat Present /Absent |
| Colorado hookless cactus (<i>Sclerocactus glaucus</i>) | Listed as threatened. Typically found on rocky hills and alluvial benches in xeric fine-textured soils overlain with cobbles and pebbles. It grows in salt desert shrub and pinyon-juniper communities at elevations ranging from approximately 4,500 to 6,600 feet. | Absent: No rocky or salt desert shrub habitat present in the Bowen Isolated Tract allotment. |
| Ute ladies'-tresses (<i>Spiranthes diluvialis</i>) | Listed as threatened. Habitat for this threatened species is found below 6,500 feet along streams, lakes or in wetland areas with seasonally saturated or subirrigated soils. | Absent: The only stream in the allotment, Huffman Gulch, has an elevation of 7,600 feet which is well above the known range of Ute ladies'-tresses habitat. |
| Parachute penstemon (<i>Penstemon debilis</i>) | Proposed for listing. Endemic to steep, talus slopes on the southern escarpment of the Roan Plateau in Garfield County, Colorado. The plants are found only on the oil-shale rich Parachute Creek Member of the Green River Formation between 8,000 to 9,000 feet in elevation. | Absent: No talus slopes of the Green River Formation present within the allotment. |
| DeBeque phacelia (<i>Phacelia submutica</i>) | Proposed for listing. A rare annual plant restricted to expansive clay soils derived from the Atwell Gulch and Shire Members of the Wasatch Formation in Mesa and Garfield Counties, Colorado. The plant grows on sites that are nearly barren of vegetation below 6,500 feet. | Absent: No exposures of the Shire Member of the Wasatch formation present in the allotment. |
| Colorado BLM Sensitive Plant Species | | |
| Species | Habitat | Occupied/Potential Habitat Present/Absent |

| | | |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| DeBeque milkvetch (<i>Astragalus debequaeus</i>) | Found only on the Wasatch Formation in the vicinity of DeBeque and Rulison, Colorado. Plants are common on the Atwell Gulch Member of the Wasatch Formation but are rare elsewhere. Elevations of known populations are between 5,100 and 6,400 feet. | Absent: No exposures of the Wasatch Formation present on the Bowen Isolated Tract allotment. |
| Naturita milkvetch (<i>Astragalus naturitensis</i>) | Occurs on sandstone mesas, ledges, crevices, and slopes in pinyon-juniper woodlands at elevations from 5,000 to 7,000 feet. It grows in areas of shallow soils over exposed bedrock. Naturita milkvetch has been found in several locations on the western end of the CRVFO. | Absent: No sandstone rimrock or ledges known to occur in the allotment |
| Cathedral Bluffs meadowrue (<i>Thalictrum heliophilum</i>) | Known from 18 occurrences in Garfield, Mesa and Rio Blanco Counties. The meadowrue is a narrowly endemic plant found in dry, shale barren communities between 6,200 and 8,800 feet in elevation. | Absent: No dry, shale barren communities in the allotment. |
| Piceance bladderpod (<i>Lesquerella parviflora</i>) | A Colorado endemic known only in Garfield, Mesa, and Rio Blanco Counties. It occurs on shale outcrops of the Green River Formation, on ledges and slopes of canyons in open areas at elevations ranging from 6,200 to 8,600 feet. | Absent: No Green River shale outcrops occur within the allotment. |
| Roan Cliffs blazing star (<i>Mentzelia rhizomata</i>) | Found only on steep talus slopes of the Green River Formation in Garfield County. The species occurs on eroding oil shale at elevations from 5,800 to 9,000 feet. In the GSFO, the Roan Cliffs blazing star is known to occur on the cliffs of the Roan Plateau, along Parachute Creek drainage and in Main Elk Creek, near New Castle, Colorado. | Absent: No Green River shale exposures occur in the allotment. |
| Harrington's penstemon (<i>Penstemon harringtonii</i>) | Open sagebrush communities on rocky loam or rocky clay loam soils between the elevations of 6,200 to 10,000 feet. | Absent: No suitable habitat identified in the Bowen Isolated Tract allotment. |

Environmental Consequences/Mitigation:

No potential habitat for any special status plant species occurs within the Bowen Isolated Tract allotment and the proposed action would have “No Effect” on these species.

Analysis on the Public Land Health Standard 4 for Special Status Plant Species:

A formal land health assessment was conducted on the watershed which includes the Bowen Isolated tract allotment in 2001. The assessment determined that no habitat exists for any special status plants in the allotment; therefore, Standard 4 for special status plant species is not applicable to this portion of the landscape.

Special Status Aquatic Wildlife Species (includes an analysis of Public Land Health Standard 4)

Affected Environment: Table 5 summarizes the latest: 1) species list (USFWS 2010) from the U. S. Fish and Wildlife Service for Federally listed, proposed, or candidate aquatic wildlife species

and 2) Colorado BLM State Director's Sensitive Species List for aquatic species; that may occur within the CRVFO and be impacted by the proposed action.

Table 5. Special Status Aquatic Wildlife Species.

| Federally Listed, Proposed or Candidate Aquatic Wildlife Species | | |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Species | Habitat/Range | Occurrence/ Potentially Impacted |
| Greenback cutthroat trout (<i>Oncorhynchus clarki stomias</i>) | Federally listed as threatened. The greenback is the subspecies of cutthroat trout native to the Platte River drainage on the Eastern Slope of Colorado, while the Colorado River cutthroat trout is the subspecies native to the Western Slope of Colorado. Historically found in cold, clear, gravely headwater streams and mountain lakes of the Arkansas and South Platte River systems in Colorado and part of Wyoming. The greenback cutthroat trout was not identified on the USFWS list for Garfield County; however, recent surveys have identified a population in Cache Creek. | Absent /No |
| Bonytail (<i>Gila elegans</i>) | Federally listed as endangered. This large chub is a member of the minnow family found in large, fast-flowing waterways of the Colorado River system. Their current distribution and habitat status are largely unknown due to its rapid decline prior to research into its natural history. The bonytail is extremely rare in Colorado and no self-sustaining population exists. Only one has been captured in the state since 1980. | Absent /No |
| Colorado pikeminnow (formerly Colorado squawfish) (<i>Ptychocheilus lucius</i>) | Federally listed as endangered. Primarily exists in the Green River below the confluence with the Yampa River, the lower Duchesne River in Utah, the Yampa River below Craig, Colo., the White River from Taylor Draw Dam near Rangely downstream to the confluence with the Green River, the Gunnison River in Colorado, and the Colorado River from Palisade, Colo., downstream to Lake Powell. Colorado pikeminnow populations in the upper Colorado River basin are now relatively stable or growing. Designated Critical Habitat includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle. | Absent /No |
| Humpback chub (<i>Gila cypha</i>) | Federally listed as endangered. Found in deep, clear to turbid waters of large rivers and reservoirs over mud, sand or gravel. The nearest known population of humpback chub is in the Colorado River at Black Rocks west of Grand Junction.. | Absent /No |
| Razorback sucker (<i>Xyrauchen texanus</i>) | Federally listed as endangered. The razorback sucker was once widespread throughout most of the Colorado River Basin from Wyoming to Mexico. In the upper Colorado River Basin, they are now found only in the upper Green River in Utah, the lower Yampa River in Colorado and occasionally in the Colorado River near Grand Junction. Because so few of these fish remain in the wild, biologists have been actively raising them in hatcheries in Utah and Colorado and stocking them in the Colorado River. Designated Critical Habitat for the razorback sucker includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle. | Absent /No |
| Colorado BLM Sensitive Aquatic Species | | |
| Species | Habitat/Range | Occurrence / Potentially Impacted |

| Federally Listed, Proposed or Candidate Aquatic Wildlife Species | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Northern leopard frog (<i>Rana pipiens</i>) | Generally found between 3,500 to 11,000 feet, in wet meadows and in shallow lentic habitats. They require year-round water sources, deep enough to provide ice free refugia in the winter. Within the CRVFO, this species has been documented in locales where quality riparian vegetation exists in conjunction with perennial water sources. Larger populations of this species have been documented northwest of King Mountain within the small drainage that feeds King Mountain (Ligon) Reservoir, June Creek and East Divide Creek south of Silt, Colorado, and in portions of the Rifle Creek watershed north of Rifle, Colorado. | Absent /No |
| Great Basin spadefoot toad (<i>Spea intermontana</i>). | This toad is known to occupy a wide variety of habitat including lowlands, foothills, and shortgrass plain. This species generally inhabits and breeds in seasonal pools and ponds in pinyon-juniper woodland, sagebrush, and semi-desert shrubland habitats, mostly below 6,000 feet in elevation. | Absent /No |
| Boreal Toad (<i>Bufo boreas boreas</i>) | The distribution of the boreal toad is restricted to areas with suitable breeding habitat in spruce-fir forests and alpine meadows generally between 7,500 and 12,000 feet elevation. Breeding habitat includes lakes, marshes, ponds, and bogs with sunny exposures and quiet shallow water. The CRVFO has potential habitat but no known populations. | Absent /No |
| Bluehead sucker (<i>Catostomus discobolus</i>), Flannelmouth sucker (<i>Catostomus latipinnis</i>), and Roundtail chub (<i>Gila robusta</i>) | Primarily found in larger rivers but may also be found in smaller tributaries with good connectivity to larger river systems. These fish are endemic to the Colorado River basin and reside within the mainstem Colorado River and its major tributary streams. Given their biology, feeding habits, habitat needs, and niche in the ecosystem, these species can persist in the face of actions that increase sediments to streams and rivers containing these species. | Absent /No |
| Mountain sucker (<i>Catostomus platyrhynchus</i>) | The mountain sucker is found primarily in small, low- mid elevation streams in northwestern Colorado with gravel, sand or mud bottoms. They inhabit undercut banks, eddies, small pools, and areas of moderate current. Young fish prefer backwaters and eddies. A population of mature adults is found in Steamboat Lake. Within the CRVFO, only known occurrence is in Piceance Creek. | Absent /No |
| Colorado River cutthroat trout (CRCT) (<i>Oncorhynchus clarkii pleuriticus</i>) | CRCT are one of three subspecies of native trout found in Colorado. CRCT prefer clear, cool headwaters streams with coarse substrates, well-distributed pools, stable streambanks, and abundant stream cover. CRCT have been documented as occurring in Parachute Creek, Abrams Creek, Battlement Creek, Mitchell Creek, North Thompson Creek and Red Dirt Creek. It is likely that all of the perennial waters capable of harboring fish historically contained this native trout species. CRCT have hybridized with non-native salmonids in many areas, reducing the genetic integrity of this subspecies. Rainbow trout hybridize with cutthroat trout. Brook and brown trout tend to replace them in streams and rivers. | Absent /No |

Environmental Consequences/Mitigation: No special status aquatic wildlife species are known or documented to occur on BLM lands within this small allotment. There would be no direct or indirect effect on any Federally listed terrestrial wildlife species and no impacts to BLM sensitive aquatic wildlife species due to renewal of the term grazing permit, authorizing the same: (1) number/kind of livestock, (2) period of use, (3) percent public land and (4) AUMS.

Analysis on the Public Land Health Standard 4 for Special Status Aquatic Wildlife Species: (partial, see also Special Status Plants and Terrestrial Wildlife): There is little if any aquatic habitat for any special status aquatic wildlife species on BLM lands within the allotment; therefore, standard 4 for special status aquatic wildlife is not applicable to this portion of the landscape.

Special Status Terrestrial Wildlife Species (includes an analysis of Public Land Health Standard 4)

Affected Environment: Table 6 summarizes the latest: 1) species list (USFWS 2010) from the U.S. Fish and Wildlife Service for Federally listed, proposed, or candidate terrestrial wildlife species and 2) Colorado BLM State Director's Sensitive Species List for terrestrial species; that may occur within the CRVFO and be impacted by the proposed action.

Table 6. Special Status Terrestrial Wildlife Species

| Federally Listed, Proposed or Candidate Terrestrial Wildlife Species | | |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Species | Habitat/Range | Occurrence/ Potentially Impacted |
| Black-footed Ferret (<i>Mustela nigripes</i>) | Federally listed as endangered. Black-footed ferrets have ranged statewide but never have been abundant in Colorado. Their habitat included the eastern plains, the mountain parks and the western valleys – grasslands or shrub lands that supported some species of prairie dog, the ferret’s primary prey. State and federal biologists have established two major black-footed ferret colonies: one at Coyote Basin (Colorado-Utah border west of Rangely) and another at the BLM's Wolf Creek Management Area southeast of Dinosaur National Monument . | Absent /No |
| Canada lynx (<i>Lynx Canadensis</i>) | Federally listed as threatened. Canada lynx occupy high-latitude or high-elevation coniferous forests characterized by cold, snowy winters and an adequate prey base. In the western US, lynx are associated with mesic forests of lodgepole pine, subalpine fir, Engelmann spruce, and quaking aspen in the upper montane and subalpine zones, generally between 8,000 and 12,000 feet in elevation. Although snowshoe hares (<i>Lepus americanus</i>) are the preferred prey, lynx in also feed on mountain cottontails (<i>Sylvilagus nuttallii</i>), pine squirrels (<i>Tamiasciurus hudsonicus</i>), and blue grouse (<i>Dendragapus obscurus</i>). The Forest Service has mapped suitable denning, winter, and other habitat for lynx within the White River and Routt National Forests. The mapped suitable habitat comprises areas known as Lynx Analysis Units (LAUs) that are the approximate the size of a female’s home range. Several LAUs include small parcels of BLM lands. | Absent /No |
| Mexican spotted owl (<i>Strix occidentalis lucida</i>) | Federally listed as endangered. This owl nests, roosts, and hunts in mature coniferous forests in canyons and foothills. The key habitat components are old-growth forests with uneven-age stands, high canopy closure, high tree density, fallen logs and snags. The only extant populations in Colorado are in the Pikes Peak and Wet Mountain areas of south-central Colorado and the Mesa Verde area of southwestern Colorado. | Absent /No |

| Federally Listed, Proposed or Candidate Terrestrial Wildlife Species | | |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Greater Sage-grouse (<i>Centrocercus urophasianus</i>) | Candidate for Federal listing. Sage-grouse, as the name implies, are found only in areas where sagebrush is abundant, providing both food and cover. Sage-grouse prefer relatively open sagebrush flats or rolling sagebrush hills. In winter, sagebrush accounts for 100% of the diet for these birds. In addition, it provides important escape cover and protection from the elements. In late winter, males begin to concentrate on traditional strutting grounds or leks. Females arrive at the leks 1-2 weeks later. Leks can occur on a variety of land types or formations (windswept ridges, knolls, areas of flat sagebrush, flat bare openings in the sagebrush. Breeding occurs on the leks and in the adjacent sagebrush, typically from March through May. Females and their chicks remain largely dependent on forbs and insects for food well into early fall. Within the CRVFO sage-grouse are still present in the northeast part of the Field Office in the Northern Eagle/Southern Routt population, while small (<500 birds), probably has, or had, a relationship with the larger population in Moffat, Rio Blanco and western Routt counties, and probably with the Middle Park population to the east. (additional information provided below). | Absent /No |
| Yellow-billed cuckoo (<i>Coccyzus americanus</i>) | Candidate for Federal listing. This secretive species occurs in mature riparian forests of cottonwoods and other large deciduous trees with a well-developed understory of tall riparian shrubs. Western cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods (<i>Populus fremontii</i>) and willows (<i>Salix</i> sp.). A few sightings of yellow-billed cuckoo have occurred in western Colorado along the Colorado River near Grand Junction. | Absent /No |
| Uncompahgre fritillary butterfly (<i>Boloria acrocnema</i>) | Federally listed as endangered. The butterfly has been verified at only two areas in the San Juan Mountains in Colorado. There is anecdotal evidence of other colonies in the San Juans and southern Sawatch ranges in Colorado. The butterfly exists above treeline on north and east facing slopes in patches of its larval host plant, snow willow. The greatest threat is butterfly collecting. Climatological patterns, disease, parasitism, predation, and trampling of larvae by humans and livestock pose additional threats. | Absent /No |
| Colorado BLM Sensitive Terrestrial Wildlife Species | | |
| Species | Habitat/Range | Occurrence/ Potentially Impacted |
| Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) and Fringed myotis (<i>Myotis thysanodes</i>) | Occur as scattered populations at moderate elevations on the western slope of Colorado. Habitat associations are not well defined. Both bats will forage over water and along the edge of vegetation for aerial insects. commonly roost in caves, rock crevices, mines, or buildings, but also may roost in tree cavities. Both species are widely distributed and usually occur in small groups. Townsend's big-eared bat is not very abundant anywhere in its range. This is attributed to patchy distribution and limited availability of suitable roosting habitat (Gruver, J.C. and D.A. Keinath 2006). | Irregularly Present /No |
| Midget faded rattlesnake (<i>Crotalus viridis concolor</i>) | A small, pale-colored subspecies of the common and widespread western rattlesnake. The midget faded rattlesnake is endemic to northwestern Colorado, including western Garfield County. Habitats include sandy and rocky areas in pinyon-juniper and semi-desert shrub. | Absent /No |

| Federally Listed, Proposed or Candidate Terrestrial Wildlife Species | | |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Northern goshawk (<i>Accipiter gentilis</i>) | An uncommon resident in mountains. Occasional migrant that may winter at lower elevations. Predominantly uses mature stands of aspen, and ponderosa/lodgepole pines. Goshawks prey on small-medium sized birds and mammals. It breeds in coniferous deciduous and mixed forests. The nest is typically located on a northerly aspect in a drainage or canyon and is often near a stream. Nest areas contain one or more stands of large, old trees with a dense canopy cover. A goshawk pair occupies its nest area from March until late September. The nest area is the center of all movements and behaviors associated with breeding from courtship through fledging. | Absent /No |
| Goldeneye, Barrow's (<i>Bucephala islandica</i>) | This bird is an uncommon winter resident and spring/fall migrant. A few may breed in the northern mountains such as the Flat Tops Wilderness Area. Goldeneye's prefer alkaline-freshwater lakes in parkland areas and to a lesser extent subalpine/alpine lakes/beaver ponds for breeding. | Absent /No |
| Brewer's sparrow (<i>Spizella berweri</i>) | Neotropical migrant that summers in western Colorado mountain parks and spring/fall migrant at lower elevations. A sagebrush shrubland obligate with an apparently secure conservation status in Colorado. | Possibly Present /Yes |
| American Peregrine Falcon (<i>Falco peregrines anatum</i>) | Rare spring and fall migrant in western valleys. Peregrine falcons inhabit open spaces associated with high cliffs and bluffs overlooking rivers. The falcon nests on high cliffs and forages over nearby woodlands. | Absent /No |
| Ibis, white-faced (<i>Plegadis chihi</i>) | The species inhabits primarily freshwater wetlands, especially cattail (<i>Typha</i> spp.) and bulrush (<i>Scirpus</i> spp.) marshes. This bird is a very rare, non-breeding, summer migrant to western Colorado valleys and mountain lakes. This species feeds in flooded hay meadows, agricultural fields, and estuarine wetlands. This species breeds in isolated colonies in mainly shallow marshes with "islands" of emergent vegetation. This species is more commonly found on the eastern slope of Colorado (e.g. San Luis valley). | Absent /No |

Environmental Consequences/Mitigation: Generally livestock grazing can alter vegetation structure, composition, and function. Effects on terrestrial wildlife are dependent on the species of interest and may be adverse or beneficial depending on AUMs permitted, grazing timing, frequency, and intensity.

Fringed Myotis and Townsend's Big-eared Bats. Healthy functioning riparian ecosystems and uplands provide habitat for a diverse and abundant plant community and in turn insect populations that attract numerous foraging bat species. Properly managed livestock grazing (i.e. meeting land health standards) is generally compatible with bat species. The development and maintenance of water sources for livestock may unintentionally provide beneficial effects to foraging bat species. As long as acceptable utilization levels are maintained and land health standards are achieved there would be no direct or indirect effects of grazing on bat species that forage over these areas.

Brewer's Sparrow. Impacts can be direct and short-term, such as nest disturbance or selective removal of understory cover; or indirect and long-term, where structural or floristic shifts in the plant community that make nesting conditions ultimately unfavorable (CDOW 2011). The level of livestock grazing can also affect habitat use (Holmes and Johnson 2005) with over-grazing reducing the amount of vegetation and lowering the amount of insect prey and cover. The limited available data suggest that habitat conditions in the sagebrush portions of the allotment are generally good. It is anticipated that maintaining the current grazing schedule with the low

numbers of AUMs will (1) not cause locally significant disturbances to nesting birds and (2) maintain critical habitat needs for Brewer’s sparrows on BLM lands.

In conclusion there would be no direct or indirect effect on any Federally listed terrestrial wildlife species and no impacts to BLM sensitive terrestrial wildlife species due to renewal of the term grazing permit, authorizing the same: (1) number/kind of livestock, (2) period of use, (3) percent public land and (4) AUMS.

Analysis on the Public Land Health Standard 4 for Special Status Terrestrial Wildlife Species: (partial, see also Special Status Plants and Aquatic Wildlife): The proposed action should sustain healthy plant and animal communities which in turn ensures that suitable habitat is available for recovery of special status species thus achieving land health standard 4.

Water Quality, Surface & Ground (includes an analysis of Public Land Health Standard 5)

Affected Environment: The Bowen allotment is contained within the East Rifle Creek 6th level watershed. The western tract of the allotment is drained by Huffman Gulch (intermittent) and other unnamed intermittent and ephemeral drainages. A 2001 assessment of Huffman Gulch indicated a confined channel with good vegetative cover, seasonally variable flow (0.18cfs), and overall good water quality (BLM 2002). The eastern tract of BLM land is drained by Sawmill Gulch (intermittent) and other unnamed intermittent and ephemeral drainages, though no water quality or flow data is available for these streams. All drainages in the allotment are tributary to East Rifle Creek, then Rifle Creek and eventually the Colorado River. Overland flow within the allotment is derived from both snowmelt and thunderstorm activity.

The State of Colorado has developed *Stream Classifications and Water Quality Standards* (CDPHE 2011a, Water Quality Control Commission, Regulation No. 37) that identify beneficial uses of water and numeric standards used to determine allowable concentrations of water quality parameters. The drainages throughout the Bowen allotment are tributaries to the Lower Colorado River Basin (Region 11, segment 9a) and have water use classifications described below:

| Stream Segment Description | Classifications |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 9a. Middle Rifle Creek, including all tributaries and wetlands, from its source to the confluence with West Rifle Creek. East Rifle Creek, including all tributaries and wetlands, from the source to the boundary of the White River National Forest. | Aquatic Life Cold 1 Recreation E Agriculture |

The State of Colorado has also developed a *303 (d) List of Impaired Waters and Monitoring and Evaluation List* (CDPHE 2011b, Water Quality Control Commission, Regulation No. 93) that identifies stream segments that are not currently meeting water quality standards with technology based controls alone.

| WBID | Segment Description | Portion | Colorado's Monitoring & Evaluation Parameter(s) | Clean Water Act Section 303(d) Impairment | 303(d) Priority |
|----------|----------------------------------------------------------------------------------------------------------------|---------|-------------------------------------------------|-------------------------------------------|-----------------|
| COLCLC10 | East Rifle Creek, West Rifle Creek and Rifle Creek, including tributaries from Rifle Gap to the Colorado River | all | <i>E. coli</i> | Se | L |

Huffman Gulch and Sawmill Gulch are considered part of the Lower Colorado River stream segment (COLCLC10), thus listed as impaired due to Selenium (CDPHE 2011b). Huffman Gulch and Sawmill Gulch are also listed on the Monitoring and Evaluation list for suspected *E. coli* exceedance (CDPHE 2011b). These water quality impairments were given a low priority by the state to develop a Total Maximum Daily Load (TMDL), a value of the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards. Selenium is mobilized in the ecosystem primarily by irrigation and naturally by rainfall and snowmelt, in selenium rich soils, such as Mancos Shale. Consequently, the proposed action has little to no effect on selenium transport to the Colorado River.

No springs, seeps, or water wells are known to exist throughout the BLM portion of the Bowen allotment. Hence, groundwater quality is not suspected to be affected by the proposed action.

Environmental Consequences/Mitigation: Direct impacts to water quality resulting from grazing could be elevated nutrient levels (i.e. fecal coliform) if cattle begin to congregate near water sources for extended periods of time. Hoof action can cause surface compaction, stream bank shearing, elevated erosion rates and subsequent deterioration of water quality. Indirect impacts may result from excessive utilization in upland watershed areas reducing effective vegetative cover, elevating erosion potential and increasing sediment delivery to area streams which could negatively impact water quality. The proposed stocking rate and short-duration are not expected to have a negative effect on water quality. Any sediment that is produced in areas where livestock may congregate would likely be captured by the existing vegetative ground cover. No irrigation or stock ponds are proposed in which selenium could be mobilized into nearby waterways; as such grazing would have little impact on selenium transport.

Analysis on the Public Land Health Standard 5 for Water Quality: During the Land Health Assessment in 2002, BLM staff determined that site specific conditions did not appear to be negatively impacting water quality. However, Huffman Gulch and Sawmill Gulch are listed on the State's 303(d) list of impaired water quality for selenium contribution to the Colorado River, and therefore are not meeting Land Health Standard 5.

Wetlands and Riparian Zones (includes an analysis on Public Land Health Standard 2)

Affected Environment: The Bowen Isolated Tract Allotment contains a riparian area along a 0.3 mile segment of Huffman Gulch. A 2001 Proper Functioning Condition (PFC) assessment for this riparian area rated it as proper functioning condition. No issue/concerns were raised with livestock grazing. No other recent monitoring, inventory/assessment, or field observations have been conducted other than the assessment mentioned above.

Environmental Consequences/Mitigation: The duration and period of grazing use would be 3.5 months throughout most of the growing season. This may cause adverse impacts to riparian areas since very little time remains for grazing rest and recovery for riparian plant species. These impacts include reduction in plant vigor, decline in riparian species composition/production, and increased potential for weed invasion. However, based on the 2001 PFC assessment, grazing use has not resulted in these impacts along Huffman Gulch. Most of the allotment and grazing use occurs on private land and probably offsets adverse impacts to the riparian area on public land. In consideration of the analysis above and the conditions of riparian areas described in the Affected Environment, renewal of the grazing permit is not expected to cause adverse impacts to riparian areas. The condition of the riparian area would be maintained.

Analysis on the Public Land Health Standard for Riparian Systems: The proposed action would maintain land health conditions for riparian systems.

Other Affected Resources

In addition to the critical elements, the resources presented in Table 7 were considered for impact analysis relative to the proposed action and no action alternative. Resources that would be affected by the proposed action and no action alternative are discussed below.

| Table 7. Other Resources Considered in the Analysis. | | | |
|-------------------------------------------------------------|--------------------------|---------------------------------|-----------------------------|
| <i>Resource</i> | <i>NA or Not Present</i> | <i>Present and Not Affected</i> | <i>Present and Affected</i> |
| Access and Transportation | | X | |
| Cadastral Survey | | X | |
| Fire/Fuels Management | | X | |
| Forest Management | | X | |
| Geology and Minerals | X | | |
| Law Enforcement | | X | |
| Paleontology | X | | |
| Noise | X | | |
| Range Management | | | X |
| Realty Authorizations | | X | |
| Recreation | | X | |
| Socio-Economics | | X | |
| Soils* | | | X |
| Vegetation* | | | X |
| Visual Resources | | X | |
| Wildlife, Aquatic* | | | X |
| Wildlife, Terrestrial* | | | X |

*Public Land Health Standard

Range Management

Affected Environment: The Bowen Isolated Tract allotment is located north of Silt, Colorado. The allotment is 198 acres of public land and 737 acres of private land consisting of mixed sagebrush/mountain shrub lands, oakbrush, and some aspen and Douglas fir patches.

Environmental Consequences/Mitigation: The proposed permit renewal would have no negative impacts to range management. A Lynx assessment from 2001 reported heavy use in Huffman Gulch (western parcel) although it was unclear whether the use was on private or BLM. Monitoring data from 2005 shows light use on the eastern BLM parcel.

Soils (includes an analysis of Public Land Health Standard 1)

Affected Environment: A review of the soil survey by the NRCS for the *Rifle Area, Colorado, Parts of Garfield and Mesa Counties* indicate five affected soil units on BLM lands throughout the Bowen allotment (NRCS 1985). Approximately 31% of the allotment is classified as Farlow-Rock outcrop association. This soil map unit is found on mountainsides at elevations ranging from 8,000 to 10,500 feet and on steep slopes. Approximately 65 percent of the unit is Farlow soil and 25 percent Rock outcrop, the remainder of the map unit consists of Dateman soils (NRCS 2011). The Farlow soil is deep, well drained and has rapid surface runoff with moderate erosion hazard; the Rock outcrop portion of this unit is limestone (NRCS 2011). Approximately 27% of the allotment is characterized by Lamphier loam. This deep, well drained soil is found on fans and mountainsides at elevations ranging from 7,500 to 10,000 feet and on slopes of 15 to 50 percent (NRCS 2011). This soil is derived from sandstone and shale, and has slow surface runoff and slight erosion hazard (NRCS 2011). Approximately 24% of the allotment is Dateman gravelly loam. This moderately deep, well drained soil is found on mountainsides at elevations ranging from 7,000 to 9,500 feet and on slopes of 30 to 50 percent (NRCS 2011). This soil is derived primarily from sandstone and limestone rocks, with a medium surface runoff and moderate erosion hazard (NRCS 2011). Approximately 10% of the allotment is characterized as Cushman-Lazear stony loam, found on mountainsides and mesa breaks on slopes of 15 to 65 percent (NRCS 2011). The Cushman soil is moderately deep, well drained and has medium surface runoff with severe erosion hazard. The Lazear soil is shallow, well drained and has moderately rapid surface runoff with severe erosion hazard (NRCS 2011). Lastly, 9% of the allotment is Northwater loam, found on 15 to 65 percent slopes. The parent material consists of residuum weathered from sedimentary rock and the natural drainage class is well drained (NRCS 2011).

Environmental Consequences: Grazing activities could result in 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.

The western BLM parcel has limited monitoring data. However, given the steep topography, it is assumed that grazing is likely to occur along Huffman Gulch and the adjacent upland terraces. Concentrated cattle use on these erosive soil types has the potential to create areas of compacted bare ground where livestock congregate and trail.

Mitigation: Photo-monitoring points should be established along Huffman Gulch and adjacent terraces to determine if soils are meeting land health standards. A utilization study should also be implemented in this western BLM parcel. If standards are not being met, the terms and conditions of the permit should be adjusted to conform to the Guidelines for Livestock Grazing Management.

Analysis on the Public Land Health Standard 1 for Upland Soils: Soil and site stability indicators evaluated during the land health assessment received departure from expected ratings of ‘none to slight’ (BLM 2001). Therefore, BLM staff concluded that Standard 1 for Upland Soils was being achieved (BLM 2002). It should be noted that the land health assessment did not collect data from the western BLM parcel. A lynx habitat assessment conducted later in 2001 raised concerns with heavy grazing use on the upland terraces adjacent to Huffman Gulch. Additional monitoring should be conducted to determine if standards are being met currently.

Vegetation (includes an analysis of Public Land Health Standard 3)

Affected Environment:

The Bowen Isolated Tract allotment encompasses two parcels of public land totaling 198 acres and 737 acres of private land adjacent to the White River National Forest north of Silt, Colorado. The public land includes a 0.3 mile reach of Huffman Gulch, an intermittent stream, and two steep ridges. Vegetation on the allotment consists of oakbrush/mixed mountain shrubs with patches of aspen and Douglas-fir on the slopes adjacent to Huffman Gulch.

Environmental Consequences:

Livestock grazing results in the direct removal of vegetation, both green shoots from the current year and old, dried growth from the previous year. During the summer months, cattle tend to prefer grasses, but may also utilize riparian shrubs, particularly later in the season. Improper livestock grazing may reduce total vegetative cover, change species composition in favor of shrubs and less palatable grasses and forbs, and may contribute to the establishment of noxious weeds and other invasive plants. Grazing management that allows for adequate rest prior to grazing or recovery time following grazing so that plants can replenish root reserves, disseminate seed and establish seedlings maintains individual plant health and plant community composition and vegetative cover. Grazing that does not exceed roughly 40-50% of the current year’s growth and does not repeatedly defoliate the same plants or species will generally maintain plant health.

Very little utilization or trend monitoring data is available with which to analyze the impact of livestock grazing on this allotment. An allotment visit in 2001 to the western parcel reported heavy grazing use along Huffman Gulch but the observer was uncertain whether the heavy use was occurring on public or private land. Houndstongue and Canada thistle were common in the area. An allotment visit to the eastern parcel in 2005 reported light use in the uplands.

Given the steep slopes that comprise most of the allotment, the bulk of the grazing use is likely to occur in the riparian area along Huffman Gulch or on the adjacent upland terraces. The existing and proposed grazing schedule is for 200 cattle from 6/16 to 9/30. This grazing schedule encompasses most of the grazing season and may not provide adequate rest from grazing during critical growth periods or adequate recovery and regrowth time to maintain vegetative health. Actual use records showed that only 52 cattle were grazed in 2001. If the allotment were stocked at full allowable numbers that would exacerbate the grazing impacts.

Mitigation:

Monitoring should be established along Huffman Gulch to determine if the riparian area and adjacent uplands are meeting the standards. If standards are not being met, the terms and

conditions of the permit should be adjusted to conform to the Guidelines for Livestock Grazing Management.

Analysis on the Public Land Health Standard for Plant and Animal Communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): A formal land health assessment was conducted in the Rifle Creek Landscape, which included the Bowen Isolated Tract allotment, in 2001. The allotment was determined to be meeting all the Standards at the time of the assessment. A lynx habitat assessment conducted later in 2001 raised concerns with heavy grazing use on the upland terraces adjacent to Huffman Gulch although it was unclear whether the use was occurring on public or private lands. Additional monitoring should be conducted adjacent to Huffman Gulch to determine if standards are being met.

Wildlife, Aquatic (includes an analysis of Public Land Health Standard 3):

Affected Environment: No aquatic wildlife species are known or documented to occur on BLM lands within this allotment.

Environmental Consequences/Mitigation: There would be no impacts to aquatic wildlife species.

Analysis on the Public Land Health Standard 3 for Aquatic Animal Communities (partial, see also Vegetation and Wildlife, Terrestrial): There is little if any aquatic habitat for aquatic wildlife species on BLM lands within the allotment; therefore, standard 3 for aquatic wildlife is not applicable to this portion of the landscape.

Wildlife, Terrestrial (includes an analysis of Public Land Health Standard 3)

Affected Environment: The CRVFO supports a wide variety of terrestrial wildlife species that summer, winter, or migrate through BLM lands. The habitat diversity provided by the broad expanses of sagebrush, mixed mountain shrub, aspen, pinyon-juniper woodlands, other types of coniferous forests and riparian/wetland areas support many species. The current condition of wildlife habitats varies across the landscape. Some habitat is altered by power lines, pipelines, fences, public recreation use, residential and commercial development, vegetative treatments, livestock and wild ungulate grazing, oil and gas development, and roads/trails. These factors have contributed to some degradation/fragmentation of habitat as well as causing disturbance to some species.

Reptiles. Reptile species most likely to occur include the western fence lizard (*Sceloporus undulatus*) and gopher snake (bullsnake) (*Pituophis catenifer*) in xeric shrublands or grassy clearings and the western terrestrial garter snake (*Thamnophis elegans*) along creeks. 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 (*Ophedryx vernalis*).

Birds. Passerine (perching) birds commonly found in the area include the: American robin (*Turdus migratorius*), pinyon jay (*Gymnorhinus cyanocephalus*) western scrub-jay (*Aphelocoma*

californica), and black-billed magpie (*Pica pica*). Two gallinaceous species, the wild turkey (*Meleagris gallopavo*) and the dusky grouse (*Dendragapus obscurus*), are found here.

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

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

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

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

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

Grazing (sheep or cattle) at up to 50% of current year's growth would be expected to maintain vertical and horizontal vegetative structure and complexity where it presently exists. The season long period of use (6/16 – 9/30) is somewhat offset by the low percent of public land and the low number of AUMs. If livestock are monitored and moved throughout the allotment appropriately, the proposed action would still allow for herbaceous and woody plant recovery and regrowth following defoliation.

No current issues between terrestrial wildlife and grazing are known. It is unlikely that renewal of the term grazing permit, authorizing the same: (1) number/kind of livestock, (2) period of use, (3) percent public land and (4) AUMS would influence or negatively impact terrestrial wildlife populations locally or on a landscape level.

Analysis on the Public Land Health Standard for Terrestrial Animal Communities (partial, see also Vegetation and Wildlife, Aquatic): The proposed action should sustain healthy terrestrial wildlife populations at viable population levels commensurate with the species and habitat's potential thus achieving land health standard 3 for terrestrial wildlife.

SUMMARY OF MITIGATION

Cultural. The cultural resource specialist should be involved in discussions for improvements, maintenance, supplemental feeding areas, etc to ensure that any undiscovered historic properties and areas of concern are avoided.

Soils and Vegetation. Monitoring should be established along Huffman Gulch to determine if the riparian area and adjacent uplands are meeting the standards. If standards are not being met, the terms and conditions of the permit should be adjusted to conform to the Guidelines for Livestock Grazing Management.

SUMMARY OF CUMULATIVE IMPACTS

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

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

PERSONS AND AGENCIES CONSULTED:

A notice of public scoping was posted on the Colorado BLM’s Internet web page on June 1, 2010 regarding grazing permits and associated allotments scheduled for renewal in 2011. The public was provided an opportunity to offer any information or concerns, or to be considered as an interested public on a permit or allotment scheduled for renewal. There have been no responses received specific to the permit renewal or allotment addressed in this NEPA document. The Colorado River Valley Field Office Internet NEPA Register also lists grazing permit renewal NEPA documents that have been initiated. They are generally posted approximately one month prior to the estimated completion date.

The following individuals, groups, organizations and/or local governments were also consulted: Grazing permittee associated with the permit renewal

INTERDISCIPLINARY REVIEW:

| <i>Name</i> | <i>Title</i> | <i>Responsibility</i> |
|-----------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Isaac Pittman | Rangeland Management Specialist | NEPA Lead, Range Management |
| Mike Kinser | Rangeland Management Specialist | Wetlands & Riparian Zones |
| Pauline Adams | Hydrologist | Air Quality, Water Quality, Soils |
| Carla DeYoung | Ecologist | ACEC, Vegetation, T/E/S Plants, Land Health Stds |
| Greg Wolfgang | Outdoor Recreation Planner | VRM, Recreation, Travel Management |
| Kimberly Miller | Outdoor Recreation Planner | WSR, Wilderness, Recreation |
| John Brogan | Archaeologist | Cultural Resources and Native American Concerns |
| Brian Hopkins | Wildlife Biologist | Migratory Birds, Terrestrial Wildlife and T/E/S Terrestrial Wildlife, Aquatic Wildlife and T/E/S Aquatic Wildlife |
| Monte Senior | Rangeland Management Specialist | Invasive, Non-native Species |

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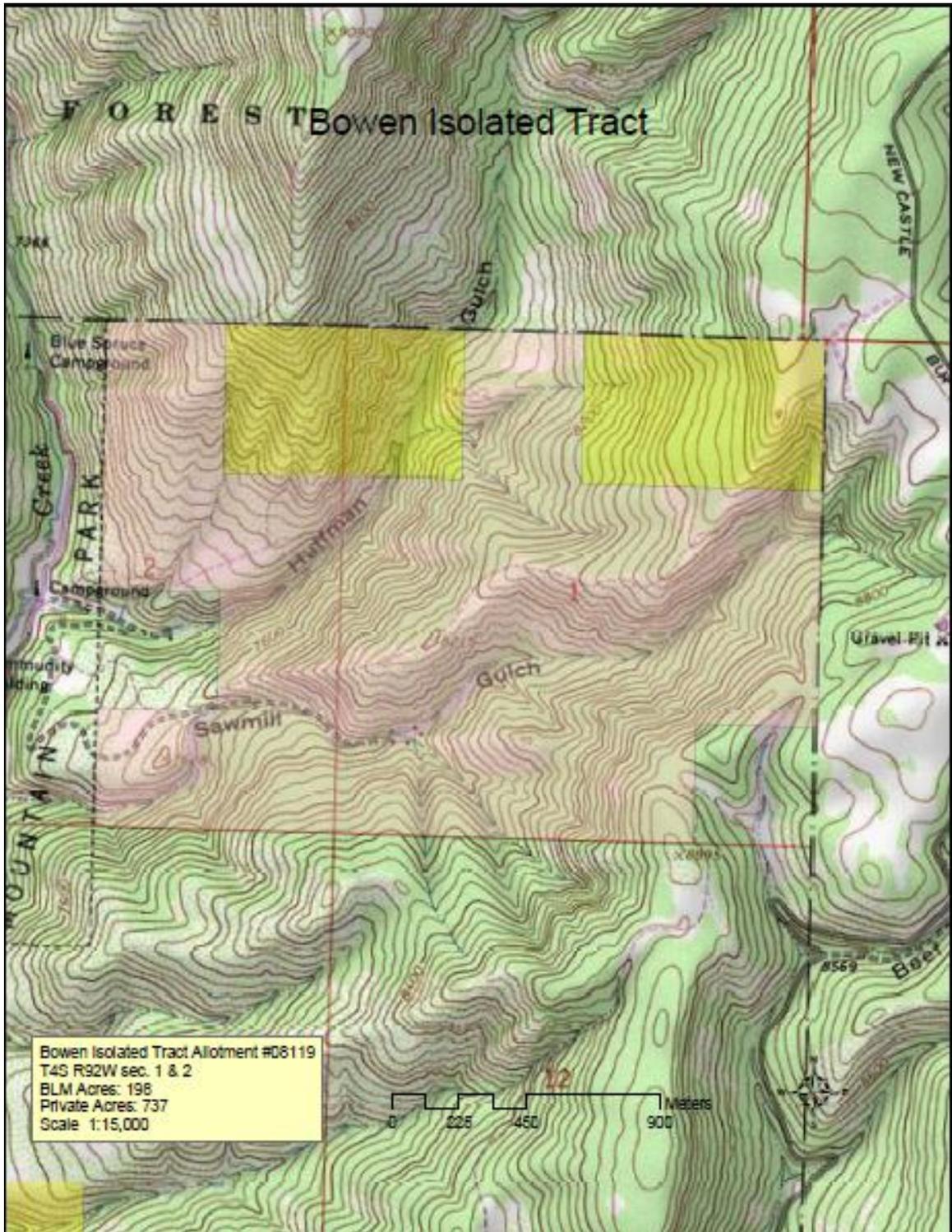
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APPENDICES: None

ATTACHMENTS: Allotment Map

PREPARER: Isaac Pittman

DATE: 3/25/2011



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 Bowen Isolated Tract Allotment

DOI-BLM-N040-2011-0021-EA

Finding of No Significant Impact

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

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

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

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

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

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

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

The proposed activities will not significantly affect public health or safety. The purpose of the proposed action is to allow for multiple uses while maintaining or improving resource conditions to meet standards for rangeland health in the allotment. Similar actions have not significantly affected public health or safety.

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

No unique characteristics occur in the allotment.

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

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

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

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

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

This EA is specific to the Bowen Isolated Tract allotment. It is not expected to set precedent for future actions with significant effects or represent a decision in principle about a future management consideration in or outside of this allotment.

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

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

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

No historic properties have been identified within this allotment. The EA discloses the adverse impacts that could occur to unknown cultural resources from livestock grazing. A Conditional No Adverse Effect determination has been made for historic properties that may occur in the allotment.

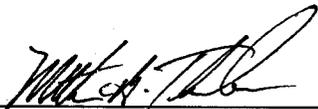
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

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

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

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

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



Authorized Officer
Colorado River Valley Field Office

3-28-11

Date