

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-N040-2011-0066-EA

CASEFILE NUMBER: 0504246

PROJECT NAME: Grazing Permit Transfer on the Clough-Alber Allotment.

LOCATION: Roan Plateau (T5S R94W & T5S R95W several sections). Refer to attached allotment map.

APPLICANT: Grazing Permittee

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Proposed Action:

Transfer Grazing Preference: The Proposed Action is to transfer grazing preference from an existing permittee to a new permittee. The new permittee has offered new base property that is located in Emery County, Utah. The transfer action is categorically excluded in the National Environmental Policy Act (NEPA) and no extraordinary circumstances apply and therefore no further analysis is required (516 DM 11.9 D1).

Issue Grazing Permit: The applicant has applied to change the type of livestock authorized from cattle to sheep and has also applied to shorten the season of use from 4 months to 1.5 months. The issuance of a grazing permit and the changes applied for require further documentation under NEPA and is analyzed within this Environmental Assessment (EA). The proposed actions are in accordance with 43 CFR 4100. The current and proposed grazing use and grazing preference are summarized below.

Implement Allotment Management Plan (AMP): To address potential impacts from grazing use on the Clough-Alber allotment and to conform to grazing management guidelines outlined in the Record of Decision for the Approval of Portions of the Roan Plateau Resource Management Plan Amendment, an Allotment Management Plan (AMP) has been developed and will be implemented with this proposed action. A copy of the AMP has been attached as Appendix 1.

Current Grazing Use:

Allotment Name & No.	Livestock No. & Kind	Period of use	Percent Public Land	AUMs
Clough-Alber #18909	134 Cattle	6/16 to 10/15	100	537

Proposed Grazing Use:

Allotment Name & No.	Livestock No. & Kind	Period of use	Percent Public Land	AUMs
Clough-Alber #18909	1785 Sheep	5/16 to 6/30	100	540

Grazing Preference AUMS:

Allotment Name & No.	Active	Suspended	Total
Clough-Alber #18909	540	0	0

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

- Grazing use shall be in accordance with the current Clough-Alber Allotment Management Plan (AMP). Any deviations must have prior approval from the BLM.
- 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.
- 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.

Additional Background Information:

There is one other grazing permit on this allotment authorizing the following use:

Allotment Name & No.	Livestock No. & Kind	Period of use	Percent Public Land	AUMs
Clough-Alber #18909	1000 Sheep	5/16 to 7/6	80	274
	1000 Sheep	9/10 to 10/31	80	274

ALTERNATIVES CONSIDERED BUT ELIMINATED:

The No Grazing alternative has been eliminated from further consideration. The Land Use Plan has identified this allotment has having forage available for domestic livestock grazing and 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 not be responsive to the application and would authorize continued use by cattle. Cattle have been difficult to manage on this allotment in the past due to the lack of interior pasture fencing and the majority of the available water is in the creeks where cattle tend to concentrate. The BLM has encouraged the existing cattle permittee to transfer the grazing permit to sheep use.

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 issuance 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: Goal GR-1, ROD-38

Decision Language: “Provide livestock forage while maintaining or enhancing healthy landscapes.”

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 Roan Cliffs Watershed in 1999 which included the Clough-Alber allotment. The allotment was not meeting standard 3 and 4 due to a declining cutthroat trout population although livestock grazing was not considered a significant contributing factor. Non-native brook trout appear to be outcompeting native Colorado River cutthroat trout, leading to poor survivability of first-year cutthroats. The allotment was found to be meeting all other Standards for Land Health at the time of the assessment.

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. In addition, the section presents comparative analyses of the direct and indirect consequences on the affected environment stemming from the implementation of the proposed action.

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

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

Affected Environment:

Trapper/Northwater Creek ACEC

The Trapper/Northwater Creek ACEC encompasses Trapper Creek, lower Northwater Creek and East Middle Fork of Parachute Creek. The Clough-Alber allotment borders Trapper Creek to the north, borders the lower portion of Northwater Creek to the south and straddles the middle portion of Northwater Creek. Trapper Creek and Northwater Creek are tributaries of Parachute Creek that originate at the eastern edge of the Roan Plateau and flow four to five miles to the west before merging to form East Middle Fork Parachute Creek. The resource values found within or affected by the Clough-Alber allotment are: Colorado River cutthroat trout habitat and hanging garden sullivania, a Green River Shale endemic plant; and a significant plant community of mountain big sagebrush/Thurber fescue.

Both Trapper and Northwater Creeks contain a genetically pure population of native, wild, naturally reproducing Colorado River cutthroat trout. This population is considered a “core conservation population” (99% genetic purity or better) and is regionally and nationally important in the conservation of the species.

The lower reaches of Northwater Creek have the cliff and seep environment which supports the rare hanging garden sullivania. The Roan Plateau is regionally important habitat for the hanging garden sullivania, supporting approximately 62% of the known global populations.

Environmental Consequences/Mitigation: The objectives for management of the affected relevant and important values within the Trapper/Northwater Creek ACEC include protecting the Colorado River cutthroat trout and its habitat from direct and indirect impacts and minimizing streambank damage caused by livestock grazing. The objectives for botanical/ecological values include protecting populations of rare plants and significant plant communities from direct and

indirect impacts and managing significant plant communities to retain mid-to-late seral stage conditions. The Roan Plateau RMP Amendment prescribes protective measures (NSO/NGD, CSU and TLs) to preserve the botanical and wildlife values. The objective is to preclude any surface-disturbing actions or high levels of activity that might impair the identified values.

Current cattle grazing on this allotment is resulting in localized impacts to riparian habitats and adjacent uplands. Specific impacts include localized bank trampling, sloughing, and widening of the stream channel, increased sediment, excessive utilization of vegetation within the riparian area and adjacent uplands, and increases in weedy species adjacent to the streams. Under the proposed action, the allotments would be grazed by sheep instead of cattle from 5/16 to 6/30 instead of 6/16 to 10/15. The revised period of use and change in class of livestock as well as provisions in the allotment management plan to move the sheep herds every five-to-seven days would allow more time for growing season rest and plant recovery which should maintain or improve riparian and upland conditions for cutthroat trout habitat and hanging garden seeps. Livestock grazing, as proposed, should maintain or improve the values for which the Trapper/Northwater Creek ACEC was designated.

CULTURAL RESOURCES & NATIVE AMERICAN RELIGIOUS CONCERNS

Affected Environment: Range 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 #1011-16) was completed for the Clough-Alber Allotment on May 17, 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.

Allotment Number	Acres Inventoried at a Class III level	Acres NOT Inventoried at a Class III level	Percent (%) Allotment Inventoried at Class III level	Number of Cultural Resources known in allotment	High Potential for Historic Properties (yes/no)	Management Recommendations (Additional inventory required and historic properties to be visited)
18909 Clough-Alber	2891	2432	54%	38	No	No additional acres need to be inventoried to meet a 10% sample. 68% of the allotment has 30%+ slopes.

Six Class III cultural resource inventories (GSFO# 224, 380, 786, 1047, 1048, and 8396-1 a&b) have been conducted within this allotment, resulting in nine Historic Properties being identified (out of 38 recorded cultural resources). Historic properties are Euro-American or Native American cultural resources that are considered eligible or potentially eligible for listing on the

National Register of Historic Places. 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 regarding this allotment, there is a low potential for undiscovered historic properties due primarily to the areas of highest potential for cultural resources already having been inventoried.

Subsequent site 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 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, gullyng, 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 cause cumulative long term irreversible adverse effects to historic properties. As stated earlier, nine potentially eligible sites were identified during the inventory for this allotment. Until a determination of eligibility is made, these sites will be managed as eligible to the NRHP and will need to be assessed to determine if livestock are impacting this resource within the term of this lease. A Conditional No Adverse Effect determination 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 the historic properties and area of concern is avoided. This allotment may also contain other undiscovered historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. 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.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: To date, limited weed mapping has occurred on the Roan Plateau. Observations by various BLM biologists have provided most of the information on weed distribution. Weed mapping on the Roan Plateau by the BLM is scheduled to be completed in 2011. Information on weeds gathered over the next year would be used to determine appropriate treatments in relation to the proposed action.

Houndstongue (*Cynoglossum officinale*) is the most prevalent weed on the Roan Plateau. It occurs in most drainages and is scattered in the uplands. Biennial thistles including bull thistle (*Cirsium vulgare*), musk thistle (*Carduus nutans*), and plumeless thistle (*Carduus acanthoides*), are frequently found in the uplands and drainages. Canada thistle (*Breca arvensis*) occurs along almost every riparian reach, sometimes in dense populations, and both Canada thistle and houndstongue occur along most roads on top of the plateau. Clough - Alber contains large amounts of houndstongue and Canada thistle along the creek and in the uplands adjacent to the creek.

Environmental Consequences: 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. 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.

The proposed change in class of livestock and shorter period of grazing use should benefit the CRVFO's weed control efforts. Cattle graze almost exclusively on grasses and forbs, thereby giving weeds a competitive advantage. Sheep prefer herbaceous vegetation (including weeds) in the spring and early summer. By applying some grazing pressure to weeds, sheep grazing will help maintain the balance between weeds and desirable herbaceous vegetation.

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 USFWS's Birds of Conservation Concern list also could occur in the area. Raptor nest 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 USFWS to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973.” The “*Birds of Conservation Concern 2008*” (USFWS 2009) is the most recent effort to carry out this mandate. The 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 2.

Table 2 - 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. Not 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	Irregular	No

Species	Habitat Description	Potential Occurrences in Project Area	Potentially Impacted
	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.		
Ferruginous Hawk (<i>Buteo regalis</i>)	Open, rolling and/or rugged terrain in grasslands and shrubsteppe communities; also grasslands and cultivated fields; nests on cliffs and rocky outcrops. Fall/winter resident, non-breeding.	Unlikely	No
Golden Eagle (<i>Aquila chrysaetos</i>)	Open country, grasslands, woodlands, and barren areas in hilly or mountainous terrain; nests on rocky outcrops or large trees. Year-round resident, breeding.	Present	No
Peregrine Falcon (<i>Falco peregrines</i>)	Open country near cliff habitat, often near water such as rivers, lakes, and marshes; nests on ledges or holes on cliff faces and crags. Spring/summer resident, breeding.	Irregular	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.	Unlikely	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
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.	Possible	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	Desert, especially areas of tall vegetation, cholla cactus,	Not Present	No

Species	Habitat Description	Potential Occurrences in Project Area	Potentially Impacted
<i>(Toxostoma bendirei)</i>	creosote bush and yucca, and in juniper woodland Possible summer resident.		
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.	Possible	No
Cassin's Finch <i>(Carpodacus cassinii)</i>	Open montane coniferous forests; breeds/ nests in coniferous forests. Year-round resident, breeding.	Possible	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: Data from 1999 land health assessments showed the vegetative community to be in good condition, providing suitable and productive upland habitat. Some problems were noted in the Clough Alber allotment, mainly in riparian areas.

Under the proposed action, the allotments would be grazed by sheep instead of cattle from 5/16 to 6/30 instead of 6/16 to 10/15. The revised period of use as well as provisions in the allotment management plan would allow more time for growing season rest and plant recovery. The proposed action including actions contained in the allotment management plan should maintain/improve riparian and upland conditions for migratory birds.

No intentional take of native bird species is anticipated under the proposed action. Grazing by sheep could result in the accidental disturbance or destruction of ground nests. This impact is expected to be negligible and would not influence populations of migratory birds on a landscape level.

SPECIAL STATUS SPECIES - PLANTS (includes an analysis on Standard 4)

Affected Environment: Table 3 summarizes the 2010 species list from the U. S. Fish and Wildlife Service for Federally listed, proposed, or candidate plant species (USFWS 2010) and the November 2009 Colorado BLM State Director's Sensitive Species List for BLM sensitive plants (BLM 2009) that may occur within Garfield County and be impacted by the proposed action.

Table 3. Special Status Plant Species in Garfield County

Federally Listed, Proposed or Candidate Plant Species		
Species	Habitat	Potential Habitat Present / Absent
Colorado hookless cactus (<i>Sclerocactus glaucus</i>)	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: The Clough-Alber allotment is above the elevational range of this species and no rocky, salt desert shrub habitat is present.
DeBeque phacelia (<i>Phacelia submutica</i>)	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.	Absent: No exposures of Atwell Gulch or Shire Members of the Wasatch formation present
Parachute penstemon (<i>Penstemon debilis</i>)	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 9,200 feet in elevation.	Potential: The Green River Formation is present within the canyons of East Middle Fork Parachute Creek and lower Northwater Creek, but not the specific Parachute Creek Member. No known or expected occurrences of this species.
Ute ladies'-tresses (<i>Spiranthes diluvialis</i>)	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 Clough-Alber allotment is above 8,000 feet, well above the upper elevational range for this species.
BLM Sensitive Plant Species		
Species	Habitat	Potential Habitat Present/Absent
Cathedral Bluffs meadowrue (<i>Thalictrum heliophilum</i>)	Known from 18 occurrences in Garfield, Mesa and Rio Blanco Counties. The meadowrue is a narrowly endemic plant found in dry shale barren communities between 6,200 and 8,800 feet in elevation.	Potential: Narrow bands of Green River shale barrens are present on south-facing talus slopes along Northwater Creek. No occurrences of this species yet documented here.
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 Atwell Gulch Member of Wasatch Formation found in the Clough-Alber 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 known populations or suitable soils exist in the 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 present
Piceance bladderpod (<i>Lesquerella parviflora</i>)	A Colorado endemic known only in Garfield, Mesa, and Rio Blanco Counties. It occurs on shale outcrops of the Green River Formation, on ledges and slopes of canyons in open areas at elevations ranging from 6,200 to 8,600 feet.	Potential: Shale outcrops of the Green River Formation are present, but no occurrences of Piceance bladderpod have been documented in 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.	Potential: This species has been documented on talus slopes along Parachute Creek, but has not yet been found within the allotment.

Affected Environment: Cathedral Bluffs meadowrue, Piceance bladderpod and Roan Cliffs blazing star all occur on open talus slopes of the Green River Formation shale. Potential habitat for these species is found along the lower reaches of Northwater Creek, but no plants of these species have been documented within the Clough-Alber allotment. There is no potential habitat for any other special status plant species within the allotment.

Environmental Consequences: Due to the absence of potential habitat, livestock grazing would have “No Effect” on any federally listed plant species.

The Cathedral Bluffs meadowrue, Piceance bladderpod and Roan Cliffs blazing star grow on steep, nearly barren talus slopes. The steep habitat and lack of vegetation which grows on these slopes do not attract livestock grazing. If these plants do occur within the Clough-Alber allotment, they are likely to receive very little grazing use or trampling damage. Livestock grazing, as proposed, should have no impact or very minimal impact on these BLM sensitive species.

Analysis on the Public Land Health Standard 4 for Special Status Plant Species: The 1999 land health assessment found no populations of special status plants within the Clough-Alber allotment. Potential habitat for Cathedral Bluffs meadowrue, Piceance bladderpod and Roan Cliffs blazing star appeared to be in good condition. The Clough-Alber allotment was meeting Standard 4 for special status plants at the time of the assessment. The proposed grazing permit and Allotment Management Plan should not result in a failure to meet or maintain Standard 4 for special status plants.

SPECIAL STATUS SPECIES – AQUATIC WILDLIFE (includes an analysis on Land Health Standard 4)

Affected Environment: Table 4 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 4 – 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
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, Trapper Creek, Northwater 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.	Present /Yes

Environmental Consequences: No threatened or endangered aquatic wildlife species are thought to occur in the allotment so the proposed action would have “no effect” on any Federally listed, proposed, or candidate aquatic wildlife species. However Colorado River cutthroat trout, a BLM Sensitive species, occupy the major perennial streams on the Roan Plateau including Trapper and Northwater Creeks.

A monitoring study was conducted on Northwater Creek in 2008. The study noted:

- Stream habitat condition was generally good on the creek. The BLM segment located below the private property was in good condition with no recent livestock damage observed. However, the BLM stream segment located above the private property was grazed heavily.
- A temporary electric fence placed to keep cows out of this area where past willow planting had been conducted did not work.

Trapper Creek, was sampled in 2009. The survey noted:

- The riparian area within the lower enclosure was lush with grasses. In some sub-reaches, grass provided an overstory that completely covered the stream. The stream channel tended to be narrow; ranging from approximately 1 to 4 feet in cross section.
- The enclosure seemed to be meeting its purpose and demonstrated what the upper reaches of Trapper Creek could look like in the absence of grazing.
- The stocked fingerlings seemed to have had excellent rates of survival and growth. The adult fish sampled were surprisingly large given the size of the stream, suggesting that Trapper Creek provides excellent habitat.

Current cattle grazing on this allotment is resulting in localized impacts to riparian and stream habitats. Specific impacts include localized bank trampling, sloughing, and widening of the stream channel, increased sediment, excessive utilization of riparian vegetation, and increases in weedy species adjacent to the streams. Under the proposed action, the allotments would be grazed by sheep instead of cattle from 5/16 to 6/30 instead of 6/16 to 10/15. The revised period of use and change in class of livestock as well as provisions in the allotment management plan would allow more time for growing season rest and plant recovery which should maintain/improve riparian and upland conditions for special status aquatic species.

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

(partial, see also Special Status Plants and Terrestrial Wildlife): The 1999 land health assessment noted that there were no limiting factors to the health and productivity of wildlife populations on the Roan Cliffs. Restoring and maintaining healthy riparian systems will benefit most wildlife species on the Roan Cliffs and should be a management priority.

The change in class of livestock as well as the provisions in the AMP should help to improve riparian and upland land health conditions for Colorado River cutthroat trout populations.

SPECIAL STATUS SPECIES – TERRESTRIAL WILDLIFE (includes an analysis on Land Health Standard 4)

Affected Environment for Special Status Terrestrial Wildlife Species: Table 5 summarizes the latest: 1) species list (USFWS 2010) from the U. S. Fish and Wildlife Service for Federally listed, proposed, or candidate terrestrial wildlife species and 2) Colorado BLM State Director's Sensitive Species List (Updated November 2009) for terrestrial species; that may occur within the CRVFO and be impacted by the proposed action.

Table 5 – 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

<p>Greater Sage- grouse (<i>Centrocercus urophasianus</i>)</p>	<p>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.</p>	<p>Absent /No</p>
<p>Yellow-billed cuckoo (<i>Coccyzus americanus</i>)</p>	<p>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.</p>	<p>Absent /No</p>
<p>Uncompahgre fritillary butterfly (<i>Boloria acrocneoma</i>)</p>	<p>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.</p>	<p>Absent /No</p>
<p>Colorado BLM Sensitive Terrestrial Wildlife Species</p>		
<p>Species</p>	<p>Habitat/Range</p>	<p>Occurrence/ Potentially Impacted</p>
<p>Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) and Fringed myotis (<i>Myotis thysanodes</i>)</p>	<p>Occur as scattered populations at moderate elevations on the western slope of Colorado. Habitat associations are not well defined. Both bats will forage over water and along the edge of vegetation for aerial insects. These bats commonly roost in caves, rock crevices, mines, buildings or tree cavities. Both species are widely distributed and usually occur in small groups. Townsend's big-eared bat is not very abundant anywhere in its range. This is attributed to patchy distribution and limited availability of suitable roosting habitat (Gruber, J.C. and D.A. Keinath 2006).</p>	<p>Possible /No</p>

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
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.	Possible /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.	Possible /Yes
American Peregrine Falcon (<i>Falco peregrines anatum</i>)	Rare spring and fall migrant in western valleys. Peregrine falcons inhabit open spaces associated with high cliffs and bluffs overlooking rivers. The falcon nests on high cliffs and forages over nearby woodlands.	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: No threatened or endangered wildlife species are thought to occur in the allotment so the proposed action would have “no effect” on any Federally listed, proposed, or candidate terrestrial wildlife species. It is possible that Northern goshawks, Brewer's sparrows, Townsend's big-eared bats and fringed myotis could be present or intermittently use the allotment.

Current cattle grazing on this allotment is resulting in localized impacts to riparian and stream habitats. Specific impacts include localized bank trampling, sloughing, and widening of the stream channel, increased sediment, excessive utilization of riparian vegetation, and increases in weedy species adjacent to the streams. Under the proposed action, the allotments would be grazed by sheep instead of cattle from 5/16 to 6/30 instead of 6/16 to 10/15. The revised period of use and change in class of livestock as well as provisions in the allotment management plan

would allow more time for growing season rest and plant recovery which should maintain/improve riparian and upland conditions for special status terrestrial species.

Analysis on the Public Land Health Standard 4 for Special Status Aquatic Wildlife Species: (partial, see also Special Status Plants and Terrestrial Wildlife): The 1999 land health assessment noted that the upland habitats were generally in good condition. The permit renewal, change in class of livestock as well as the provisions in the AMP should help to improve riparian and upland land health conditions for BLM sensitive terrestrial species.

Analysis on the Public Land Health Standard 4 for Special Status Terrestrial Wildlife Species: (partial, see also Special Status Plants and Terrestrial Wildlife): The 1999 land health assessment noted that there were no limiting factors to the health and productivity of wildlife populations on the Roan Cliffs. The vegetative communities on most of the upland assessment sites were in mid to late-seral stage. Management actions designed to increase the distribution of age classes within and between vegetation communities may slightly improve wildlife habitat. Restoring and maintaining healthy riparian systems will benefit most wildlife species on the Roan Cliffs and should be a management priority.

The permit renewal, change in class of livestock as well as the provisions in the AMP should help to improve riparian and upland land health conditions for BLM special status terrestrial species.

WATER QUALITY, SURFACE AND GROUND

Affected Environment: The Clough-Alber Allotment is located within an unnamed 6th field watershed through which the perennial Northwater Creek and its tributaries flow. Major perennial tributaries to Northwater Creek include Tichner Draw, Raspberry, and Yellowjacket Creeks. Along the northwest boundary of the allotment is the perennial Trapper Creek which converges with Northwater Creek at the western terminus of the allotment boundary to form East Middle Fork of Parachute Creek.

According to the *Stream Classifications and Water Quality Standards* (CDPHE 2011a, Water Quality Control Commission, Regulation No. 37), drainages within the Clough-Alber allotment are within the Lower Colorado River Basin segment 8, which is classified as aquatic life cold 1, recreation N, water supply, and agriculture. The State of Colorado has 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 or are suspected to have water quality problems. At this time, the drainages within the Clough-Alber allotment are not listed on either of these lists.

Historically water quality data has been collected on the Roan Plateau by various agencies and groups that include: continuous monitoring by the USGS from 1976-1983, data collected by the Department of Energy in 1981, data collected by the BLM in 1999 as part of the Roan Cliffs Land Health Assessment, data collected by Colorado Trout Unlimited in 2007, and BLM data collected in 2008 and 2009. A review of the existing data indicates that streams within the

allotment maintain overall good water quality. The only exceptions were noted in Northwater, Raspberry and Yellowjacket Creeks, in which elevated levels of fecal coliform were noted during the cattle grazing season of use.

Environmental Consequences: Direct impacts to water quality resulting from grazing could be elevated nutrient levels (i.e. fecal coliform) if livestock 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. It is assumed that the proposed action of changing cattle to sheep grazing may alleviate some direct nutrient loading to streams, since sheep do not tend to congregate in riparian areas as cattle often do. Thus, the proposed stocking rate and shorter-duration are expected to alleviate some of the E. coli and fecal coliform loading that has occurred in the past with cattle grazing, and over time improve water quality. Any sediment that is produced in areas where sheep may congregate would likely be captured by the existing vegetative ground cover.

Mitigation: Stream bank and water quality monitoring will continue for the next three years to allow staff to evaluate the effectiveness of the grazing management changes on water quality. Continued communication with the permittees could also improve existing conditions by dispersing livestock effectively throughout the season of use and away from riparian areas.

Analysis on the Public Land Health Standard 5 for Water Quality: In 1999, BLM staff evaluated streams within the Clough-Alber Allotment as part of the Roan Cliffs Unit Land Health Assessment. Water quality parameters collected at that time were limited, but showed no violation of the water quality standards established by the State of Colorado (BLM 1999). Since that time, Colorado Trout Unlimited and the BLM collected data that showed elevated levels of fecal coliform bacteria, some of which exceeded recommended levels for salmonid bearing streams. At this time, it is believed that Standard 5 for Water Quality is marginally being met.

WETLANDS AND RIPARIAN ZONES (includes an analysis on Public Land Health Standard 2)

Affected Environment: Table 6 below lists known riparian areas and their Proper Functioning Condition (PFC) assessment for the Clough-Alber Allotment:

Table 6- Riparian Areas

Riparian Area Name	Miles	Year Assessed	Condition Rating
Yellowjacket Creek	2.0	1999	Functioning at Risk – Upward Trend
Raspberry Creek	2.0	1999	Functioning at Risk – Upward Trend
Northwater Creek – Middle Reach	1.7	1999	Functioning at Risk – Upward Trend
Northwater Creek – Lower Reach	2.1	1994	Functioning at Risk – Not Apparent Trend
Tichner Draw	0.7	1994	Functioning at Risk – Downward Trend
Trapper Creek – Upper Exclosure	0.6	1994	Functioning at Risk – Not Apparent Trend
Trapper Creek – Lower Exclosure	0.5	1999	Proper Functioning Condition

Riparian Area Name	Miles	Year Assessed	Condition Rating
Trapper Creek – Lower Reach	1.2	1994	Functioning at Risk – Not Apparent Trend

In addition to the riparian areas listed above, numerous springs exist on the allotment. These have not been inventoried or accessed. Several of the assessments conducted in 1994 noted issues with heavy livestock grazing. The 1999 assessments did not document any issues with current grazing use.

The Land Health Assessment Roan Cliffs Unit, dated 1999, stated that virtually all of the riparian zones assessed show definite signs of improvement since the 1994 PFC assessment with widening of the riparian zone evident, a decrease in the amount of bare soil or cut banks and recruitment of woody and/or herbaceous riparian species.

Several riparian photo point monitoring locations have been established on the Clough-Alber Allotment. Some of these photos were retaken in 2007 and 2008. Table 7 below summarizes the interpretation of trend and other observations for these photo points.

Table 7- Trend Photos

Location	Years	Trend Interpretation and Observations
Raspberry Creek at road jct. Sec 20 NENW	2005 2008 2009	Not a good view of the riparian zone. No changes in the riparian area are apparent. Trend appears static.
Northwater Creek at confluence of Yellowjacket Creek	1990 1998 2008	Throughout all years, riparian zone is widening. There is an increase in production, cover and diversity of riparian plant species, and a decrease in bare ground. Trend is upward.
Northwater Creek at confluence of Raspberry Creek	2005 2008	Throughout all years, riparian zone is widening. There is an increase in production, cover and diversity of riparian plant species, and a decrease in bare ground. Trend is upward.
Northwater Creek at JQS boundary	2005 2008 2009	No changes in the riparian area are apparent. Trend appears static. The system lacks diverse cover and composition of riparian plant species. The area appears to have heavy grazing use by cattle.
Raspberry Creek at confluence of Northwater Creek	2005 2008	Riparian zone appears to have widened somewhat and there is some increase in production, cover and diversity of riparian plant species, and a decrease in bare ground. Trend is upward.
Yellowjacket Creek at road jct. Sec 20 SWNE	2005 2007 2009	Photos were taken at different time of year (Sept 22, 2005 & Nov. 2, 2007) which makes comparison more difficult. Riparian vegetation cover had decreased and bare ground increased. Trend is downward. Amount of bank damage had increased compared to 2005 photos. Heavy utilization levels by cattle were apparent in 2007 and 2009 (very little stubble height remaining). The system lacks diverse cover and composition of riparian plant species.

Recent riparian utilization data is limited. Riparian stubble height measurements conducted along Raspberry Creek in 2008 showed no less than an average of 4 inches for all species monitored. Another one along Northwater Creek (near the boundary of the JQS Allotment) in 2008 showed an average stubble height of 3 inches or less for all species monitored. Stubble height measurement conducted along Yellowjacket Creek in 2007 also showed an average stubble height of 3 inches or less for all species monitored.

Concerns about heavy grazing use in some riparian areas prompted establishment of Multiple Indicator Monitoring (MIM) in 2009 at the two locations (Northwater Creek, and Trapper Creek). Baseline data was collected for long-term indicators (greenline vegetation and streambank stability). Conclusions for trend cannot be determined until follow-up measurements are conducted. Short-term indicators (stubble height and streambank alteration) were also collected in 2009 and 2010. Stubble height and bank alteration were well within acceptable limits in both years. It should be noted that cattle grazing did not occur in 2010.

The monitoring data above indicate there are current grazing management issues with parts of Raspberry Creek, Northwater Creek and Yellowjacket Creek. Trend is static or downward and heavy grazing use/utilization is evident. Riparian area condition is improving along portions of Northwater and Raspberry Creeks.

Environmental Consequences: Direct impacts to vegetation from livestock grazing include removal of forage (herbivory) and trampling damage. Indirect impacts from livestock grazing may also result in soil compaction and erosion. Poor grazing management practices can result in excessive utilization, soil compaction or repeated defoliations that do not allow sufficient time for rest and recovery of plant species. Reduced vigor or death of plant species may result as well as increased potential for weed invasion or other undesirable vegetation. Excess herbivory or trampling damage can lead to greater erosion or deposition, changes in channel geomorphology, and less soil moisture. Well-managed grazing can provide a variety of environmental benefits. Herbivory can remove old or of dead growth that allows for an increase green matter (re-growth). Hoof action from livestock can be used to plant seed which promotes the germination and establishment of new plants. Targeted grazing can be a useful tool to control undesirable invasive plant species or reduce fuels that contribute to severe wildfires. Livestock grazing that promotes and is compatible with healthy riparian vegetation contributes to sustainable levels of aboveground biomass, root growth, and root strength in streambanks. Through overbank flows, riparian vegetation is naturally defoliated or buried by stream and sediment deposition. Livestock can contribute to the maintenance of vegetation by defoliating dormant or dead growth in between these overflow events, thus increasing green matter and hence root strength and growth (Wyman et al. 2006).

Under the proposed action, the duration of grazing use (both sheep permits) would be approximately 104 days (May 16 – July 6, Sept. 10 – Oct. 31) compared to the 155 (May 16 – Oct. 31) days currently permitted with both sheep and cattle. The proposed grazing use would allow for a 65 day period of grazing rest (July 7 – Sept. 9) during the growing season. The class of livestock would be changed from cattle and sheep to sheep only. Management prescriptions require sheep camps to be moved every five to seven days and would not be brought back to the same area once it has been used that grazing season. Assuming this grazing strategy is successful, the duration of use in any given area would be much less (seven days or less) and there would be a period of grazing rest throughout most of the growing season. Repeated defoliations of riparian plant species would be infrequent and there would be ample rest and recovery times. Other management prescriptions such as salt placement away from water, stubble height requirements, and construction of water developments in uplands would also minimize grazing use in riparian areas. Under the above grazing use and management prescriptions, the conditions of riparian areas would be expected to improve. Riparian species

diversity, cover, composition, and production would increase. This would also result in an improvement in bank stability.

Analysis on the Public Land Health Standard 2 for Riparian Systems: The proposed action would improve land health conditions for riparian systems.

WILD AND SCENIC RIVERS

Affected Environment: The Clough-Alber allotment borders Trapper Creek on the north and Northwater Creek on the northwest. Both Trapper Creek and Northwater Creek were found to be eligible under a Roan Plateau Eligibility Report for the National Wild and Scenic Rivers System in 2002. All eligible segments will be managed to preserve the identified Outstanding Remarkable Values (ORV’s) until such a time as a suitability study is completed. The ORV’s identified for these segments were their core conservation population of Colorado River cutthroat trout and the rare hanging garden sullivantia (*see Special Status Aquatic Wildlife Species, Vegetation*). The 2007 ROD for the Roan Plateau RMP Amendment and EIS (page ROD-35) prescribed protective measures (SSR/CSU) to preserve the identified Outstanding Remarkable Values (ORV’s) for fish and botany values until such a time as a suitability study is completed. The overall objective is to not allow surface disturbing activities that might impair those identified ORV’s or the segments preliminary classification which range from wild to recreational. (*see Special Status Aquatic Wildlife Species, Vegetation*).

Environmental Consequences: Current livestock grazing on this allotment is resulting in impacts to riparian and stream habitats. Specific impacts include localized bank trampling, sloughing, and widening of the stream channel, increased sediment, excessive utilization of riparian vegetation, and increases in weedy species adjacent to the streams. If properly implemented, the terms and conditions to be placed on this permit should help to improve riparian and stream habitats, which should have beneficial impacts to the fish ORV’s. The change in livestock or duration does not necessarily benefit or impact the ORV’s. The hanging garden sullivantia should benefit by improved riparian and stream habitats.

OTHER AFFECTED RESOURCES

In addition to the critical elements, the resources presented in Table 8 were considered for impact analysis relative to the proposed action. Resources that would be affected by the proposed action are discussed below.

Table 8. 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

*Land Health Standard

RANGE MANAGEMENT

Affected Environment: The Clough-Alber allotment is essentially in the middle of the Roan Plateau planning area. The allotment consists of 5,323 acres of public land and 643 acres of unfenced private land. It is bordered by the JQS allotment to the east and the East Fork allotment to the west. The allotment consists of a mixture of topology driven vegetation types and has no interior pasture fencing. North facing slopes are usually forested while south facing slopes are drier and brush dominated. The allotment varies widely in elevation and consists of two major drainages, Northwater Creek and Trapper Creek. Both of these drainages have been identified as ACECs in the Land Use Plan. There are several grazing permittees on these three allotments making coordination between permittees critical.

Environmental Consequences: The existing grazing permit is being transferred from cattle use during a four month period which encompassed most of the growing season to a sheep permit for a one and a half month period in the early spring. Based on the planned management there would be two sheep permittees on the Clough-Alber allotment. The two permittees would be using the allotment at the same time during the spring but only one permittee would be on the allotment during the fall (the permit which is not being analyzed as part of this transfer). Each permittee would be grazing in separate pastures. This proposed use would allow rest from grazing pressure during a large part of the growing season. The proposed early turnout date will focus sheep use on over wintering browse such as sagebrush and early green up of grasses and other browse such as snowberry, choke cherry, and service berry. Pockets of residual snow will provide a useable water source for sheep outside of the riparian areas. Sheep would also likely be bedded on or near the ridge top giving further protection to the sensitive riparian areas. It is anticipated that the proposed change in the type of grazing use and the shortened period of use would improve rangeland health and promote more diverse plant communities.

SOILS (includes a analysis on Standard 1)

Affected Environment: Based on the *Soil Survey of Rifle Area, Colorado: Parts of Garfield and Mesa Counties* (NRCS 1985), the Clough-Alber allotment contains nine different soil map units, though the majority of the allotment is contained with the following three soil types: 33% of allotment contains Parachute-Rhone loams, found on ridges and mountainsides at elevations ranging from 7,600 to 8,600 feet and on slopes of 5 to 30 percent (NRCS 2011). The Parachute soil is derived from sandstone and or marlstone while the Rhone soil is derived from fine-grained

sandstone (NRCS 2011). The Parachute soil is moderately deep, well drained, and has a moderate erosion hazard with medium surface runoff (NRCS 2011). The Rhone soil is deep, well drained, and has a slight erosion hazard with slow surface runoff (NRCS 2011). 31% of allotment contains Northwater loam, a deep, well drained soil is found on mountainsides at elevations ranging from 7,600 to 8,400 feet and on slopes of 15 to 65 percent (NRCS 2011). The Northwater loam is derived from sedimentary rocks and is considered to have slow surface runoff and slight erosion hazard (NRCS 2011). 13% of allotment contains Irigul channery loam, a shallow, well drained soil found on upland ridge and mountainsides at elevations ranging from 7,800 to 8,700 feet and on slopes of 9 to 50 percent (NRCS 2011). It is derived from sandstone and marlstone, with a medium surface runoff and slight erosion hazard (NRCS 2011). The rest of the soil units are in relatively low proportions and scattered throughout the allotment. Some areas along drainages within the Clough-Alber allotment are mapped as CSU 4 (Controlled Surface Use) for erosive soils on slopes greater than 30% and NSO 15 (No Surface Occupancy) for slopes greater than 50% regardless of soil type.

Environmental Consequences: Under the proposed action, the allotments would be grazed by sheep instead of cattle from 5/16 to 6/30 instead of 6/16 to 10/15. The shortened period of use as well as provisions in the allotment management plan would allow more time for growing season rest and plant recovery, which facilitate better soil stability. Sheep grazing may 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. Due to the close proximity of the proposed activities to area drainages, there is potential that additional sediment associated with grazing practices could reach nearby drainages. However, based on generally good vegetative cover; the likelihood of excessive soil degradation and transport to nearby drainages is minimal.

Analysis on the Public Land Health Standard 1 for Upland Soils: In 1999, BLM staff evaluated the Clough-Alber Allotment as part of the Roan Cliffs Unit Land Health Assessment in which it was determined that Standard 1 for Upland Soils was being achieved (BLM 1999). The proposed action would not likely prevent Standard 1 for Upland Soils from being met.

VEGETATION (includes an analysis on Standard 3)

Affected Environment: The Clough-Alber allotment lies above the rim of the Roan Plateau with an elevation ranging from 7,600 to 9,000 feet. The allotment consists of long ridgelines dissected by deep canyons carved by Trapper and Northwater Creeks and their upper tributaries. Vegetation within the Clough-Alber allotment consists of a mixture of sagebrush/snowberry/serviceberry shrublands on the ridge tops, sagebrush/mountain mahogany/grasslands on south-facing slopes, and aspen and spruce-fir forests on north-facing slopes. The shrublands are generally dense with a productive grass understory. The gentler gradient of upper Northwater Creek supports primarily sedges, rushes and riparian grasses. The lower portions of Northwater Creek and Trapper Creek are steeper and are dominated by willows and other riparian shrubs. Canada thistle and houndstongue are common in the riparian areas. Houndstongue is also present in some of the upland sagebrush/mixed mountain shrub sites. Kentucky bluegrass, an invasive, introduced perennial grass, is relatively common at many upland sites.

Significant Natural Plant Communities:

The Roan Plateau Final RMP (BLM, 2006) identified the hanging garden Sullivantia (*Sullivantia hapemanii*) as a significant plant community within the Clough-Alber allotment. Hanging garden Sullivantia is a Colorado endemic plant that is restricted to calcareous seeps on steep canyon walls. The hanging gardens are found in the Clough-Alber allotment along lower Northwater Creek. The hanging gardens receive no grazing use due to their location on cliff faces above the creeks and the communities are in excellent condition.

Upland utilization and trend data for the Clough-Alber allotment is very limited. Photo monitoring of riparian areas indicates concerns with utilization levels and the condition of riparian areas. The photos also provide evidence of heavy utilization of the adjacent uplands. Vegetation on the uplands immediately adjacent to the creeks is dominated by Kentucky bluegrass, and weedy species such as houndstongue and coneflower have replaced some of the native grasses. Ridge tops and upland slopes farther away from the creeks appear to receive less grazing use and these areas are more diverse and productive. However, lack of disturbance and disproportionate grazing of grasses instead of shrubs has led to a decrease in grass cover and an increase in shrub and weed density and cover.

Environmental Consequences: Direct impacts to vegetation from livestock grazing include removal of vegetation and trampling damage. Indirect impacts may include increased plant mortality (increased bare ground) and increases in noxious weeds and other undesirable species. Poorly managed grazing can result in excessive utilization or repeated defoliations that do not allow sufficient time for rest and recovery of plant species. Reduced vigor or death of plant species may result as well as increased potential for invasion of noxious weeds and other undesirable vegetation. Excess trampling damage can lead to soil compaction and erosion which can impede root growth and seedling establishment. Well-managed grazing can remove old or dead growth that allows for an increase in photosynthesis and green matter (re-growth). Hoof action from livestock can be used to plant seed which promotes the germination and establishment of new plants.

Under the proposed action, the class of livestock would be changed from cattle and sheep to sheep only. Cattle graze almost exclusively on grasses and forbs, thereby giving weeds and shrubs a competitive advantage. Sheep prefer herbaceous vegetation in the spring and early summer, but will also make some use of weeds and palatable new growth on shrubs. By applying some grazing pressure to weeds and shrubs, sheep grazing would help maintain the balance between weeds, shrubs and desirable herbaceous vegetation.

The duration of grazing use (both sheep permits) would be approximately 104 days (May 16 – July 6, Sept. 10 – Oct. 31) compared to the 155 (May 16 – Oct. 31) days currently permitted with both sheep and cattle. The proposed grazing use would allow for a 65 day period of grazing rest (July 7 – Sept. 9) during the growing season. Management prescriptions require sheep camps to be moved every five to seven days and would not be brought back to the same area once it has been used that grazing season. Assuming this grazing strategy is successfully implemented, the duration of use in any given area would be much less (seven days or less) and there would be a period of grazing rest throughout most of the growing season. Under the above grazing use and

management prescriptions in the AMP, the condition of upland plant communities would be expected to improve, especially the upland areas immediately adjacent to the creeks. Diversity, cover, composition and vigor of plant communities would remain the same or improve.

Analysis on the Public Land Health Standard 3 for Plant and Animal Communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): A 1999 land health assessment determined that plant communities on the Roan Plateau were generally in good to excellent condition. Kentucky bluegrass was noted on over 25% of the assessment sites but was rarely a dominant component. Noxious weeds and undesirable species were present, but were minimal in the overall landscape. Plant communities were present in mixed age classes sufficient to sustain recruitment and mortality fluctuations. However, except adjacent to the drainages where utilization is excessive and plant communities are in an early seral stage, the vegetative communities in the uplands were predominantly in mid to late-seral stage. Lack of disturbance and disproportionate grazing of grasses instead of shrubs has led to a decrease in herbaceous cover and an increase in shrub density and cover.

Many aspen stands were beyond late-seral stage and some elevated mortality was noted. However, at most sites, numerous aspen sprouts and saplings were noted and livestock grazing did not appear to be inhibiting aspen regeneration. Conifer stands were also healthy at the time of the assessment.

The proposed change in class of livestock and shorter period of grazing use should benefit the vegetative resource. Repeated defoliations of upland plant species would be infrequent and there would be adequate rest and recovery times. Under the proposed action, plant communities would be expected to improve and Standard 3 for plant communities would be maintained.

WILDLIFE AQUATIC (includes an analysis on Standard 3)

Affected Environment:

Fish. Brook trout (*Salvelinus fontinalis*) in addition to Colorado River cutthroat trout occupy the major perennial streams on the Roan Plateau including Trapper and Northwater Creeks.

Amphibians. Several amphibians of interest are found within the CRVFO, the Boreal Toad (*Bufo boreas boreas*) and the Great Basin spadefoot toad (*Spea intermontana*). 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. Great Basin spadefoot toads occupy arid grasslands and high sagebrush, desert shrub, and pinion-juniper woodlands. Great Basin spadefoot toad has been documented in the western third of the field office from the town of Rifle west to the boundary with the Grand Junction Field Office. This represents the eastern extent (fringe) of the species overall range and populations are believed to be small and sporadic.

Environmental Consequences: Current cattle grazing on this allotment is resulting in localized impacts to riparian and stream habitats. Specific impacts include localized bank trampling, sloughing, and widening of the stream channel, increased sediment, excessive utilization of

riparian vegetation, and increases in weedy species adjacent to the streams. Under the proposed action, the allotment would be grazed by sheep instead of cattle from 5/16 to 6/30 instead of 6/16 to 10/15. The revised period of use and change in class of livestock as well as provisions in the allotment management plan would allow more time for growing season rest and plant recovery which should help maintain/improve riparian and upland conditions for aquatic species.

Analysis on the Public Land Health Standard 3 for Aquatic Animal Communities (partial, see also Vegetation and Wildlife, Terrestrial): The 1999 land health assessment noted that there were no limiting factors to the health and productivity of wildlife populations on the Roan Cliffs. The vegetative communities on most of the upland assessment sites were in mid to late-seral stage. Management actions designed to increase the distribution of age classes within and between vegetation communities may slightly improve wildlife habitat. Restoring and maintaining healthy riparian systems will benefit most wildlife species on the Roan Cliffs and should be a management priority. The permit renewal, change in class of livestock as well as the provisions in the AMP should help to improve riparian and upland land health conditions for aquatic species.

WILDLIFE TERRESTRIAL (includes an analysis on Standard 3)

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

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

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 throughout the CRVFO.

Birds of prey (eagles, falcons, hawks, and owls) may migrate through the area or nest in cottonwoods, conifers, or very tall oaks, while the numerous songbirds and small mammal populations provide the primary prey base. Common raptor species in the CRVFO include the: red-tailed hawk (*Buteo jamaicensis*), golden eagle (*Aquila chrysaetos*) American kestrel (*Falco*

sparverius), great horned owl (*Bubo virginianus*), Cooper's hawk (*Accipiter cooperii*), and sharp-shinned hawk (*A. striatus*).

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 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.

The terrestrial wildlife objectives for the allotment are derived from the Roan Plateau Area RMPA. The terrestrial wildlife objective is "*Protect wildlife security areas, habitat connectivity, habitat carrying capacity and winter range*". The RMPA identified several management actions however they are mainly directed at gas development and surface disturbing activities.

Environmental Consequences: Current cattle grazing on this allotment is resulting in localized impacts to riparian and stream habitats. Specific impacts include localized bank trampling, sloughing, and widening of the stream channel, increased sediment, excessive utilization of riparian vegetation, and increases in weedy species adjacent to the streams. Under the proposed action, the allotments would be grazed by sheep instead of cattle from 5/16 to 6/30 instead of 6/16 to 10/15. The revised period of use and change in class of livestock as well as provisions in the allotment management plan would allow more time for growing season rest and plant recovery which should maintain/improve riparian and upland conditions for terrestrial species. It would also help achieve the terrestrial wildlife objective for the Roan Plateau area.

Analysis on the Public Land Health Standard for Terrestrial Animal Communities (partial, see also Vegetation and Wildlife, Aquatic): The 1999 land health assessment noted that there were

no limiting factors to the health and productivity of wildlife populations on the Roan Cliffs. The vegetative communities on most of the upland assessment sites were in mid to late-seral stage. Restoring and maintaining healthy riparian systems will benefit most wildlife species and should be a management priority.

The permit renewal, change in class of livestock as well as the provisions in the AMP should help to improve riparian and upland land health conditions for terrestrial species.

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 (positive or negative) 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 limited land management activities occurring across the allotment, it is assumed that cumulative effects to soil and water are minor and unmeasurable.

SUMMARY OF MITIGATION:

Cultural. The cultural resource specialist should be involved in discussions for improvements, maintenance, supplemental feeding areas, etc to ensure that the historic properties and area of concern is avoided. This allotment may also contain other undiscovered historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. 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.

Water Quality. Stream bank and water quality monitoring will continue for the next three years to allow staff to evaluate the effectiveness of the grazing management changes on water quality. Continued communication with the permittees could also improve existing conditions by dispersing livestock effectively throughout the season of use and away from riparian areas.

PERSONS AND AGENCIES CONSULTED:

The following individuals, groups, organizations and/or local governments were identified as having an affected interest and were consulted:

Grazing permittees associated with the permit transfer
 Colorado Division of Wildlife

The proposed action was also listed on the public NEPA website on March 23, 2011. No public comments have been received.

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
Carole Huey	Realty Specialist	Lands & Realty Authorizations
Greg Wolfgang	Outdoor Recreation Planner	VRM, Recreation, Travel Management
Kimberly Miller	Outdoor Recreation Planner	Wild and Scenic Rivers, 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 Senor	Rangeland Management Specialist	Invasive, Non-native Species

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APPENDICES: Clough-Alber AMP and Maps

PREPARER: Isaac Pittman

DATE: 6/10/2011

CLOUGH-ALBER ALLOTMENT MANAGEMENT PLAN

Colorado River Valley Field Office

Prepared By Isaac Pittman

Rangeland Management Specialist

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I. Introduction

The Clough-Alber allotment, consisting of 5,323 acres, is located in the northwest corner of the Roan Plateau; Township 5 South Range 94 & 95 West. The allotment ranges in elevation from 7,600 to 9,300 feet and averages approximately 20 inches of precipitation a year. Common vegetation types include aspen, conifer, mountain shrub and sagebrush.

The preparation of a management plan was recommended in the 1990 evaluation summary of this allotment. In that evaluation it was noted that more emphasis be placed on monitoring of riparian zones. It was also identified in the Record of Decision for Approval of Portions of the Roan Plateau Resource Management Plan Amendment that BLM should “develop, implement, monitor, and review AMPs on a regularly scheduled basis with grazing permittees. The major focus of this Allotment Management Plan is to address riparian issues and develop corresponding objectives and management actions.

This management plan is specific to the Clough-Alber allotment and serves as a supplement to the land use plan.

II. Land Use Planning Guidance

Grazing and Rangeland Goal:

- Provide livestock forage while maintaining or enhancing healthy landscapes.

Vegetation, Weeds, and Riparian/Wetland:

- Develop and implement economically feasible grazing systems and range improvements.
- Defer grazing use for two growing seasons on disturbed areas larger than 0.5 acres (e.g., a fire event, reclamation of disturbed lands, or vegetation treatment), or until site-specific analysis and monitoring data indicate that vegetation cover, species composition, and litter accumulation are adequate to support and protect watershed values and meet vegetation objectives.
- Avoid or mitigate activities that could cause a downward trend in the condition of riparian resources or functioning condition.
- Initiate activity plans that identify habitat improvement projects to achieve desired conditions.
- Implement grazing management on riparian/wetland areas that will result in achieving Proper Functioning Condition and late-seral stage plant community development and improve fisheries habitat.
- Require the use of weed free hay and feed for livestock.

Special Status Fish and Wildlife:

- Implement appropriate actions as soon as practicable, not later than the start of the next grazing year if livestock grazing management practices or utilization levels are found to be substantial factors in stream bank damage along any occupied cutthroat trout streams.

Cultural Resources:

-a qualified archeologist on site during construction/maintenance activities as determined by the Cultural Resource Specialist.

Grazing and Rangeland:

- Develop, implement, monitor, and review AMPs (Allotment Management Plans) on a regularly scheduled basis with grazing permittees with priority for allotments determined not to be meeting Colorado Standards for Public Land Health. Apply guidelines and BMPs (Best Management Practices) to rest and defer grazing of riparian areas.
- Ensure that Colorado Standards for Public Land Health are being met through land health surveys, and application of the GSFO Resource Monitoring Plan. Use a combination of administrative solutions (season of use revisions, livestock exclusion, and stocking level adjustments) and rangeland projects (fences, ponds, and so forth) to direct livestock use to meet resource objectives and Colorado Standards for Public Land Health...
- Abandon and rehabilitate rangeland projects that do not function to maintain resource values and meet management objectives.
- Identify criteria for determining the beginning and end of droughts...
- Initiate proactive management (i.e. season of use adjustments, reduced stocking levels, or complete rest) to mitigate the drought effects upon a determination by the Field Manager that a drought has begun.
- Initiate gradual restocking and season of use adjustments upon a determination by the Field Manger that a drought has ended.

Livestock Management BMPs:

- Require implementation of management tools such as fencing, stock ponds, and salt to manage livestock distribution as needed, and discourage grazing in unwanted areas such as riparian vegetation and sensitive wildlife habitat.
- Adjust livestock grazing in heavily used areas to allow native vegetation an adequate period of recovery to maintain plant health.
- Where an adequate seed bank does not exist, restore temporarily disturbed areas by seeding with native species and planting woody species. A weed-free straw or hay mulch may be applied and crimped in place or a biodegradable erosion-control fabric may be used to enhance germination and seedling establishment.
- Install fences around revegetated areas to exclude livestock for at least two full growing seasons.
- Construct fences and gates to ensure that livestock do not enter areas being protected for another resource that would be diminished by grazing or trampling.

- Construct alternative water sources to disperse livestock use and reduce dependence on natural streams and riparian corridors.

Appendix B (Grazing Management Guidelines for Riparian Areas):

- Grazing management practices maintain sufficient residual vegetation to protect the soil from wind and water erosion, to assist in maintaining appropriate soil infiltration and permeability, and to buffer temperature extremes. In riparian areas, vegetation dissipates energy, captures sediment, recharges ground water, and contributes to stream stability.
- Recommended “Rule of Thumb” Guidelines:
 1. Avoid continuous season long grazing...
 2. Place supplements at least 0.25 and preferably 0.5 mile from riparian areas...
 3. Develop additional water sources...
 4. Adopt frequent riding and/or herding...
 5. Avoid using streams as fenced boundaries...
 6. Consider exclusion fencing where practical or riparian pasture fencing.
 7. Adopt utilization and/or residual vegetation targets...
 8. Apply guidelines that limit streambank shearing and trampling...
 9. Conduct prescribed burning or other treatments in uplands to attract livestock away from riparian areas.

Areas of Critical Environmental Concern:

- Trapper/Northwater Creek ACEC (4,810 acres)
(See appendix 3)

Specific management actions will be applied that will protect relevant and important values in the Trapper/Northwater Creek ACEC including Colorado River cutthroat trout habitat and botanical resources.

Management Actions affecting livestock grazing in these ACECs are:

1. Manage livestock grazing within the ACECs so that streambank damage does not exceed 10 percent of the stream length.
2. Manage livestock grazing within occupied or potential habitat for rare plants or significant plant communities to promote plant health, maintain sufficient residual vegetation, and sustain overall watershed functions, as defined in the Colorado Livestock Grazing Management Guidelines.
3. Allow No Ground Disturbance (NGD/NSO) within high and moderate risk habitat areas for Colorado River cutthroat trout. Allow no loss or degradation of fish habitat that supports Colorado River cutthroat trout high risk habitat.
4. Roads, transmission lines, storage facilities and similar human-induced surface disturbances will be restricted to an area beyond the outer edge of the riparian vegetation. A CSU (Controlled Surface Use) would apply within 500 feet of the outer edge of the wetland or riparian area.

III. Specific Resource Objectives

1. Achieve or be moving toward Proper Functioning Condition (PFC) on all riparian areas.
2. Maintain upland key forage species at or above 20% of the total canopy coverage.
 - a. The following have been identified as upland key forage species: needlegrass spp., wheatgrass spp., June grass, wild rye, mountain brome, and elk sedge.

III. Management Prescriptions Necessary to Meet Resource Objectives

1. Sheep camps will be moved every 5-7 days and will not be brought back to the same area once it has been used that grazing season. Proper distribution of sheep along the steeper slopes that cannot be reached by cattle will set back some of the older shrubs and promote the growth of herbaceous vegetation that can then be available for wildlife such as elk.
2. The allotment will be divided into two pastures. The West pasture will be used by Jensen and the East Pasture will be used to Bair. This will prevent sheep from getting mixed together and will help ensure that areas within the allotment are only used once during the grazing season.
3. Supplemental feed such as salting blocks should be placed at least ¼ mile from water developments and riparian areas and, where applicable, up to a ½ mile. This will encourage livestock distribution and give permittees more control over what areas are being used.
4. Grazing in the riparian areas should leave an average minimum 4-inch stubble height of herbaceous vegetation. Once stubble height approaches an average of 4 inches sheep will be moved to the next area or removed from the allotment immediately.
5. Build and maintain ponds on ridge tops to make use of available water and take pressure off creek bottoms. Develop spring sources to provide additional watering points.
6. The period of use within specific areas should be altered annually to provide rest for from grazing pressure during different times of the year. This will allow for recovery of root reserves and seed dissemination and seedling establishment.

IV. Specifications of Flexibility

1. The following table shows what will be authorized under this AMP:

Operators	Lvstk #	Lvstk Kind	Begin	End	% PL	AUMs
Jensen	1785	Sheep	5-16	6-30	100	540
Bair	1000	Sheep	5-16	7-6	80	274
Bair	1000	Sheep	9-10	10-31	80	274

2. Provided that the period of use does not exceed that authorized by the permit, flexibility will be allowed to the permittees as to number of livestock and season of use. Dates must be within 14 days of the above authorized dates and AUM amounts will not be exceeded. The BLM authorized officer must be notified of any changes in numbers of livestock or dates prior to turn-out. An actual use statement must be turned into the BLM office within 15 days after coming off the allotment. Billing will be based on actual use.
3. The establishment of a rotational grazing system will be the responsibility of the permittees and will be coordinated with the BLM. It is recommended that all areas of the allotment be used at some point in the grazing season and that no overlap in use occur.

V. Provisions of Monitoring

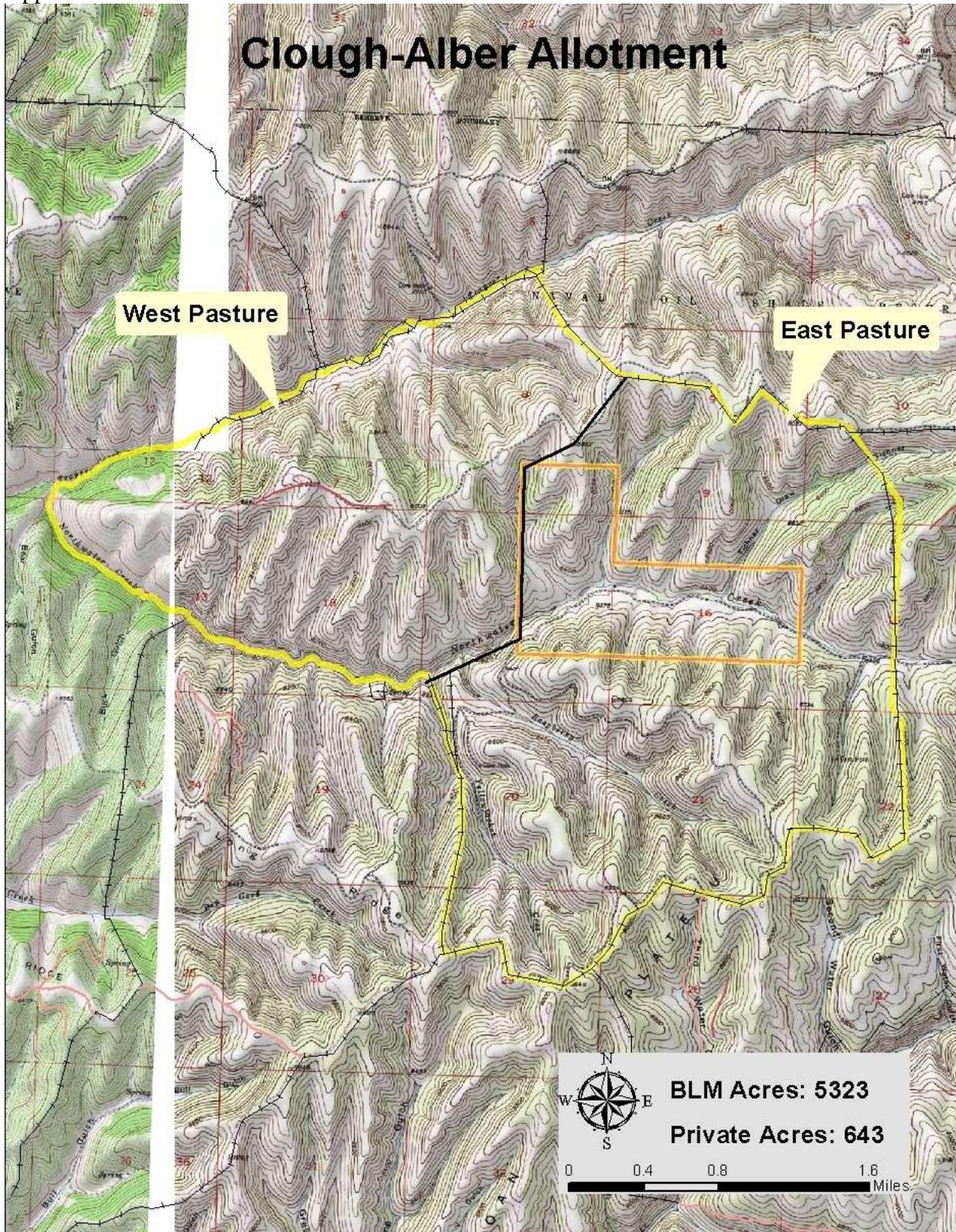
1. Streambank monitoring will be conducted using the Multiple Indicator Monitoring Method (MIM) as described in the Idaho Technical Bulletin. New guidance or an updated version of this bulletin may be used.
2. It is the permittees' responsibility to monitor utilization levels and move livestock when utilization levels have been reached.
3. Other sites may be established in riparian areas to better determine and document riparian trend. Water quality will continue to be monitored at designated sites to determine appropriate levels of fecal coliform and/or E. coli, along with other basic water quality parameters.
4. The BLM will record utilization levels and stubble height annually in key areas. Trend will be recorded in key areas through Daubenmire and photo plot records once every 3-5 years. Compliance Inspections will be conducted throughout the grazing period to determine if management is adequate. Other studies will also be conducted according to the Glenwood Springs Resource Monitoring Plan.
5. As indicated in the grazing regulations, active use will be reduced if utilization levels exceed the livestock carrying capacity and are causing a negative impact to watersheds, habitat, water quality, or ecological processes. It is considered that 50% utilization in the uplands and an average stubble height of 4 inches are the maximum allowable utilization amounts to achieve objectives.

VI. Terms and Conditions

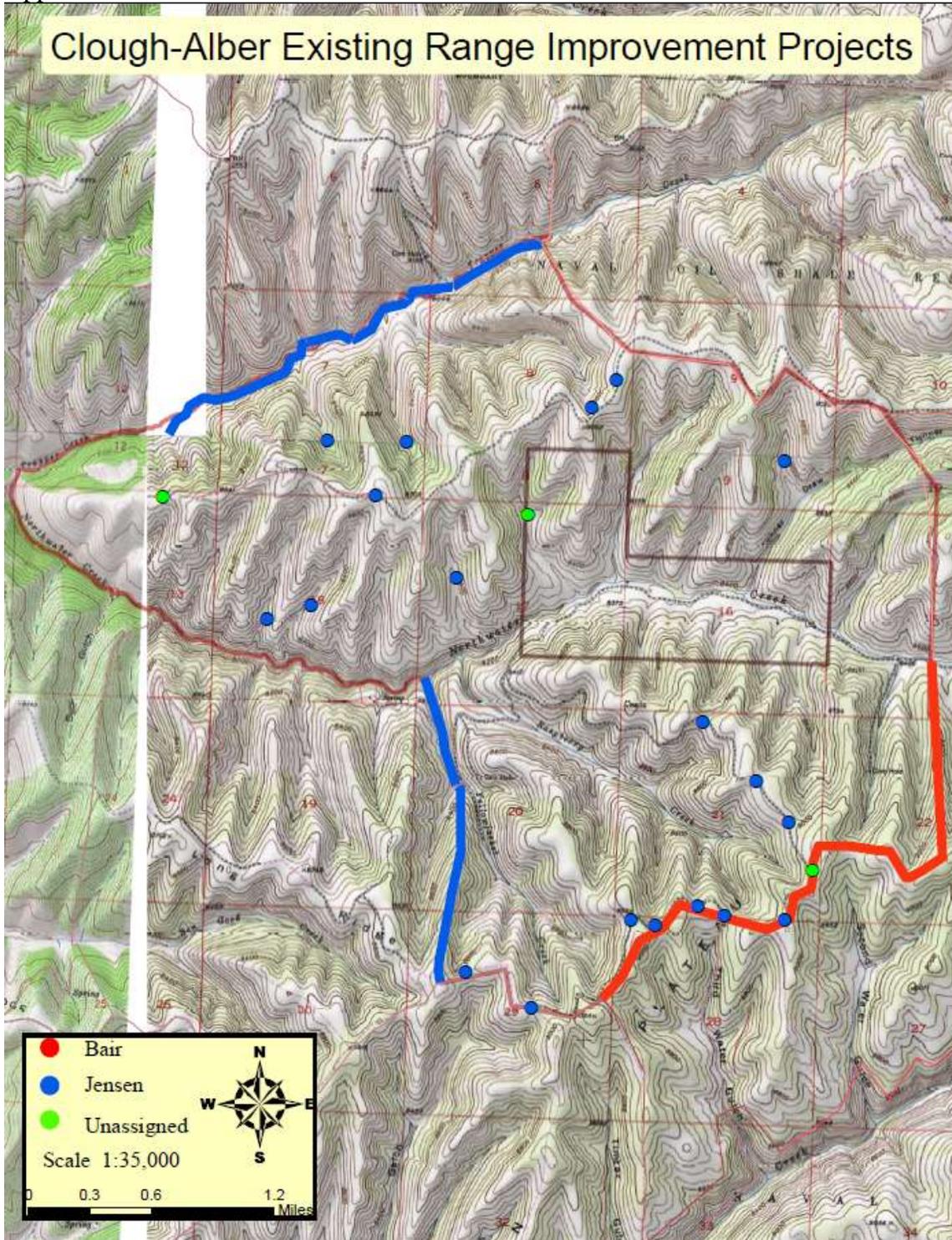
Sec. 4130.3 Terms and conditions.

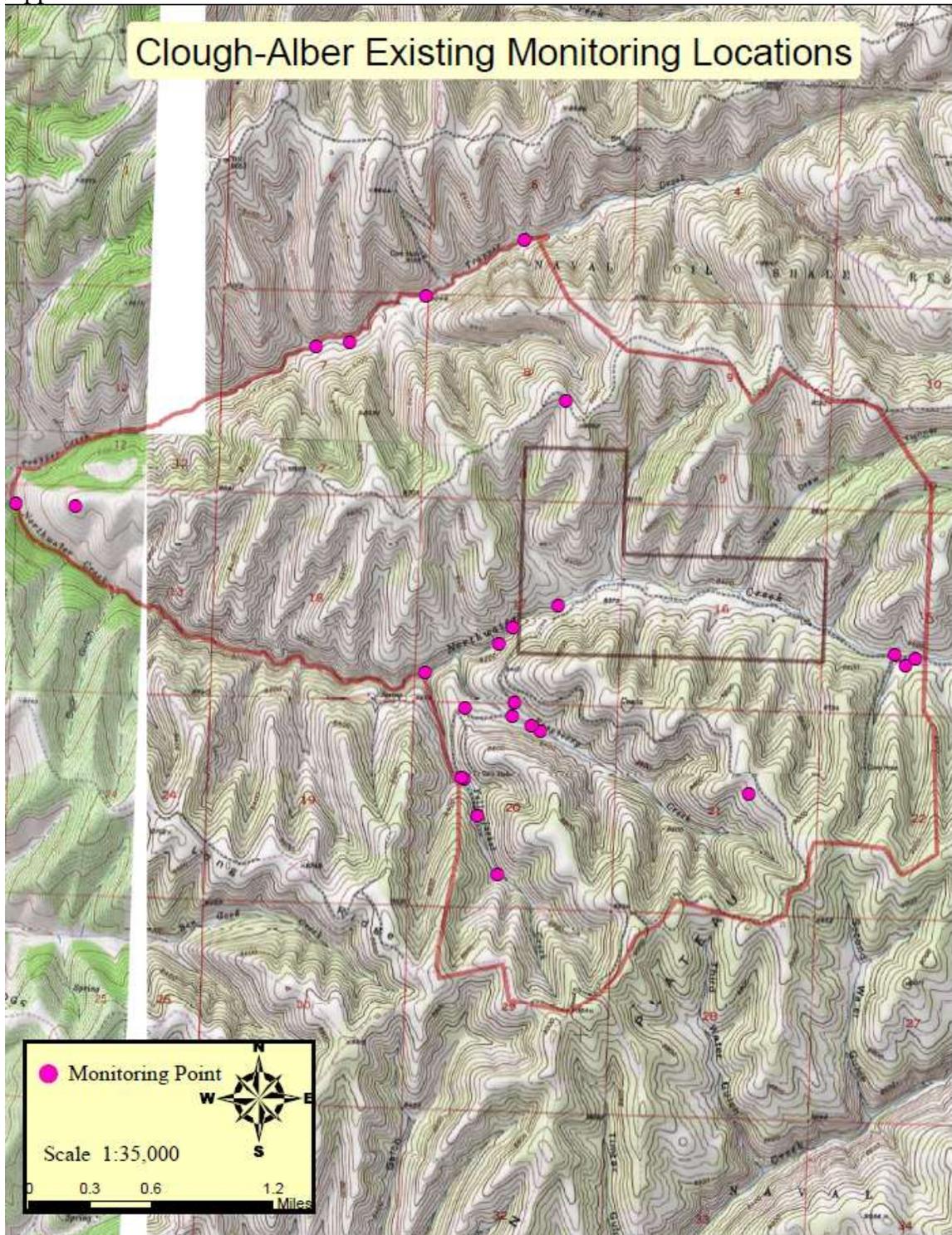
Livestock grazing permits and leases shall contain terms and conditions determined by the authorized officer to be appropriate to achieve management and resource condition objectives for the public lands and other lands administered by the Bureau of Land Management, and to ensure conformance land health standards.

1. 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. (See appendix 1)
2. The permittee and all persons associated with grazing operations must be informed that any person who injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law. If in connection with allotment operations under this authorization any of the above resources are encountered, the proponent shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM authorized officer of the findings. The discovery must be protected until further notified in writing to proceed by the authorized officer.
3. An actual use report shall be submitted annually to the BLM office no later than 15 days after livestock have been removed (i.e. the grazing end period on the bill or permit/lease).

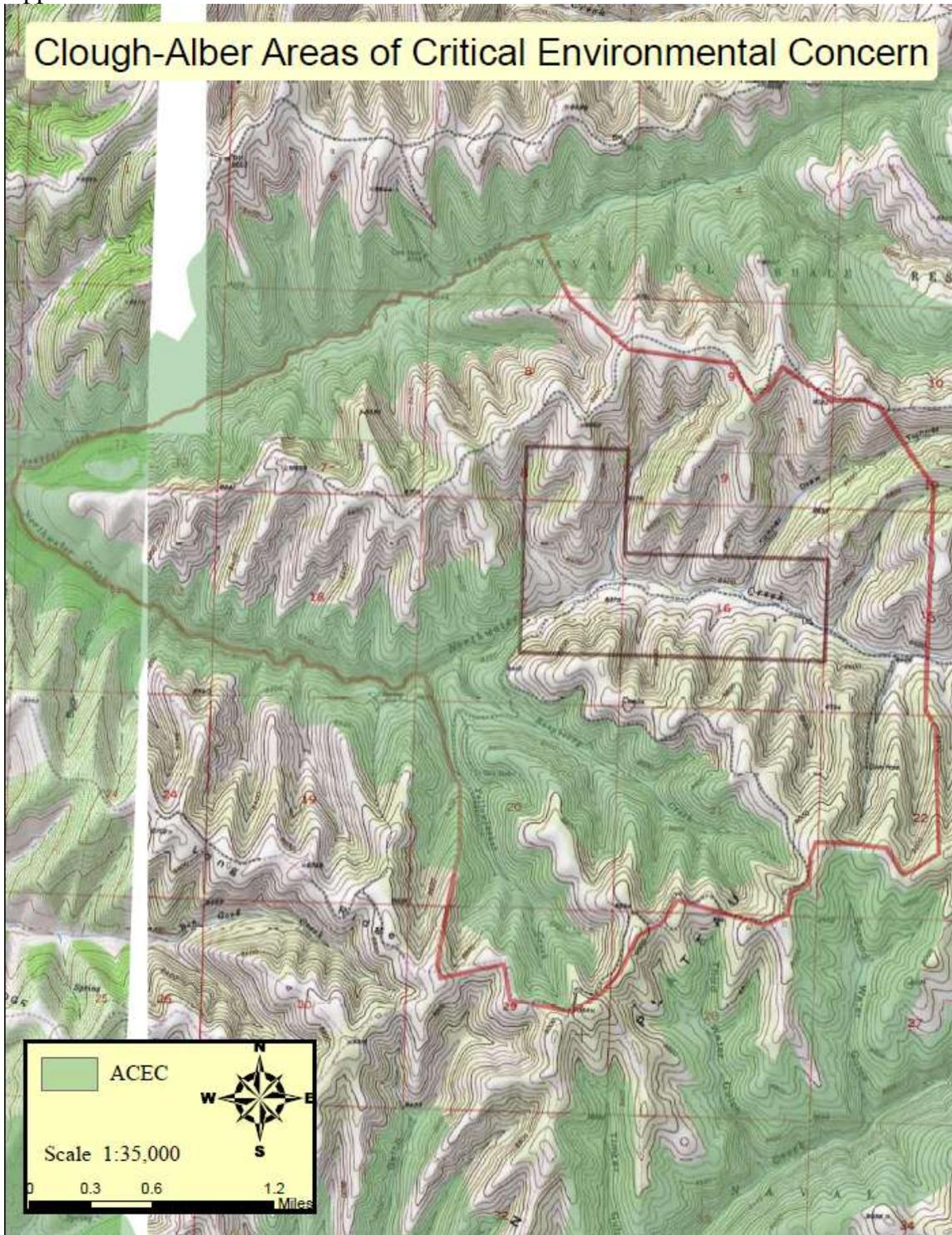


Clough-Alber Existing Range Improvement Projects





Clough-Alber Areas of Critical Environmental Concern



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COLORADO RIVER VALLEY FIELD OFFICE
FINDING OF NO SIGNIFICANT IMPACT

Grazing Permit Transfer on the Clough-Alber Allotment

DOI-BLM-N040-2011-0066-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 issuance and implementation of the AMP on the Clough-Alber 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 issuance 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.

The Clough-Alber allotment contains one ACEC. The Trappers/Northwater Creek ACEC was established to protect the relevant values associated with a genetically pure population of native, wild, naturally-reproducing Colorado River cutthroat trout and the Colorado endemic plant, hanging garden sullivantia, which is narrowly restricted to calcareous seeps, but is found in abundance in the hanging gardens on the Roan Plateau.

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 Clough-Alber allotment. It is not expected to set precedent for future actions with significant effects or represent a decision in principle about a future management consideration in or outside of this allotment.

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

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

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

Six Class III cultural resource inventories (GSFO# 224, 380, 786, 1047, 1048, and 8396-1 a&b) have been conducted within this allotment, resulting in nine Historic Properties being identified (out of 38 recorded cultural resources). Based on available data regarding this allotment, there is a low potential for undiscovered historic properties due primarily to the areas of highest potential for cultural resources already having been inventoried.

Subsequent site 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.

The EA discloses the adverse impacts that could occur to cultural resources from livestock grazing. A determination of a Conditional No Adverse Effect has been made for historic properties that may occur in the allotment. At present, there are no known areas of Native American concern within this 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

6-13-2011
Date