

U.S. Department of the Interior
Bureau of Land Management
Little Snake Field Office
455 Emerson Street
Craig, CO 81625-1129

ENVIRONMENTAL ASSESSMENT

EA NUMBER: CO-100-2007-027 EA

PERMIT/ALLOTMENT NUMBER: 0500203/04537; 0500204/04058; 0502010/04538

PROJECT NAME: Renewal of the ten year grazing permit for Bord Gulch Ranch on the House Allotment #04537, renewal of the ten year grazing lease for Bord Gulch Ranch on the East Bord Gulch Allotment #04058, and renewal of the ten year grazing permit for Elkhead Ranch on the Bord Gulch Allotment #04538.

LEGAL DESCRIPTION: See allotment maps, Attachment 1.

House Allotment #04537 T 9 N, R 93 W, portions of sections 32, 34, and 35
239 acres BLM
599 acres BLM LU
1082 acres private
1920 acres total

East Bord Gulch Allotment #04058 T 8 N, R 93 W, portions of sections 4, 5, 8, 10, 11, 14, 15,
21, 22, and 28; all of section 16
1686 acres BLM
3065 acres private
4751 acres total

Bord Gulch Allotment #04538 T 9 N, R93 W, portions of sections 21, 23, 26, and 27
5 acres BLM
960 acres BLM LU
2288 acres private
3253 acres total (no change from present acres)

APPLICANT: Bord Gulch Ranch, Elkhead Ranch (Ray Owens, ranch manager for both operators.)

PLAN CONFORMANCE REVIEW: The Proposed Action and Alternatives are subject to the following plan:

Name of Plan: Little Snake Resource Management Plan and Record of Decision

Date Approved: April 26, 1989

Results: The Proposed Action is consistent with the Little Snake Resource Management Plan, Record of Decision, Livestock Grazing Management objective to improve range conditions for both wildlife and livestock through proper utilization of key forage plants and adjusting livestock stocking rates as a result of vegetation studies.

The Proposed Action is located partially within Management Unit 1 (Eastern Yampa) and is compatible with the management objectives for this unit, which are to realize the potential for the development of coal, oil, and gas resources.

The Proposed Action is located partially within Management Unit 2 (Northern Central) and is compatible with the management objectives for this unit, which are to provide for the development of the oil and gas resource.

A very small corner of the Proposed Action is located within Management Unit 7 (Scattered Sands) and is compatible with the management objectives for this unit, which are to provide for the development of locatable minerals and leasable minerals other than coal, oil, gas, or geothermal resources.

NEED FOR PROPOSED ACTION: BLM permit #0500203, which authorizes livestock grazing on the House Allotment #04537, expires on February 28, 2009. An environmental analysis for livestock grazing was completed on this allotment in 1999 (EA #CO-100-99-009), for use made by the previous permittee, John Peroulis and Sons #0501263. The base property attached to the allotment was sold and the grazing preference subsequently transferred to Bord Gulch Ranch, who wishes to change the terms and conditions of the permit.

BLM lease #0500204, which authorizes livestock grazing on the East Bord Gulch Allotment #04058, expires on February 28, 2008. The East Bord Gulch Allotment #04058 had been part of John Peroulis and Sons (#0501246), whose lease expired February 28, 2000. This was renewed for three years (expiring February 28, 2003) under Public Law 106-113. It was renewed again under Public Law 107-67 for a term of one year (expiring February 28, 2004) and again for two years under Public Law 108-108 (expiring February 28, 2006). In 2005, the base property attached to the allotment was sold and the grazing preference subsequently transferred to Bord Gulch Ranch, who accepted the existing terms and conditions. (The remaining allotments remained with Peroulis and Sons and grazing use was analyzed under a separate EA.) The current lease was renewed again for two years under Public Law 108-108 (expiring February 28, 2008).

BLM permit #0502010, which authorizes livestock grazing on the Bord Gulch Allotment #04538, was transferred to Elkhead Ranch from Creda Mae Murphy in 2006 and expires on December 31, 2008.

These permits and lease are subject to renewal at the discretion of the Secretary of the Interior, who delegated the authority to BLM, for a period of up to ten years. BLM has the authority to renew the livestock grazing permit/lease consistent with the provisions of the *Taylor Grazing*

Act, Public Rangelands Improvement Act, Federal Land Policy and Management Act, and Little Snake Field Office's Resource Management Plan/Environmental Impact Statement. This Plan/EIS has been amended by Standards for Public Land Health in the State of Colorado.

The following EA will analyze the impacts of livestock grazing on public land managed by the BLM. The analysis will recommend terms and conditions to the permit/lease which improve or maintain public land health. The Proposed Action will be assessed for meeting land health standards.

In order to graze livestock on public land, the livestock producer (permittee/lessee) must hold a grazing permit/lease. The grazing permittee/lessee has a preference right to receive the permit/lease if grazing is to continue. The land use plan allows grazing to continue. This EA will be a site specific look to determine if grazing should continue as provided for in the land use plan and to identify the conditions under which it can be renewed.

PUBLIC SCOPING PROCESS: BLM Little Snake Field Office sent out a Notice of Public Scoping in October 1998, to determine the level of public interest, concern, and resource conditions on the grazing allotments that were up for renewal in FY 1999. A Notice of Public Scoping was also sent in July, 1999, to determine the level of public interest, concern, and resource conditions on the grazing allotments that were up for renewal in FY 2000. A Notice of Public Scoping was also sent in October, 2004, to determine the level of public interest, concern, and resource conditions on the grazing allotments that were up for renewal in FY 2006. For 2004, a Notice of Public Scoping was posted on the Internet, at the Colorado BLM Home Page, asking for public input on permit/lease renewals. Individual letters were sent to the affected permittees/lessees, informing them their permit/lease was up for renewal and requesting any information they wanted included in or taken into consideration during the renewal process. The issuance of grazing permits/leases for these allotments has been carefully analyzed within the scope of the specific action being taken, resource issues or concerns, and public input received.

BACKGROUND:

House Allotment #04537

This allotment is located approximately 19 miles northwest of Craig, Colorado, along Moffat County Road 7. The allotment consists of 838 acres of BLM / LU lands and 1,082 acres of private. The allotment is currently permitted for spring and fall sheep use, and summer cattle use. The Proposed Action would modify current use dates. He currently uses it with both cattle and sheep.

The external boundary is not plotted correctly. There will also be some adjustments between this allotment and the adjacent Middle Bord Gulch #04053, which is held by Nottingham Land and Livestock. All private land within the new allotment boundary is owned by Bord Gulch Ranch. Consequently percent public land will be adjusted.

The allotment is divided into four pastures. There is the possibility of an additional private pasture being created in the future, but it is not included at this time. The acreages will be changed from: 239 acres of BLM, 599 acres of BLM LU, and 1,082 acres of private, with 1,920

total acres, 79% PL; to: 330 acres BLM, 721 acres BLM LU, and 2,472 acres private, with 3,523 total acres, 43% PL.

East Bord Gulch Allotment #04058

This allotment is located approximately 17 miles northwest of Craig, Colorado, along Moffat County Road 7. The allotment consists of 1,686 acres of BLM land and 3,065 acres of private. The current lease is for sheep only, from May 1 through November. There was unauthorized cattle use in the past. The Proposed Action permits regulated use of either sheep or cattle on the allotment. The allotment has 11 pastures.

The external boundary is not plotted correctly. In addition, due to trades with John and Steve Raftopoulos and Nottingham Land and Livestock, additional modifications are necessary. The acres will be changed to: 1,570 acres BLM and 3,783 acres private, with 5,353 total acres. Percent public land will remain at 100%.

Bord Gulch Allotment #04538

This allotment is located approximately 20 miles northwest of Craig, Colorado, along Moffat County Road 7. The allotment consists of 965 acres of BLM and BLM LU lands and 2,288 acres of private. Current use is for either sheep or cattle from mid May to mid October.

There will be no boundary changes to this allotment. All private land within the allotment is owned by Elkhead Ranch. Percent public land is currently 56%. This will be changed to 30% (assuming equal production on public and private lands).

The allotment currently has six pastures. Some areas have lands enrolled in the Conservation Reserve Program (CRP), but none of these pastures contain public lands.

MONITORING INFORMATION: All three allotments lie within the Lay Creek Watershed, which was assessed for meeting the Colorado Public Land Health Standards in 2006. In addition, the East Bord Gulch Allotment #04058 had separate assessments done in 2004 when it was anticipated this allotment would be renewed as part of Peroulis and Sons' lease renewal.

Both the House Allotment #04537 and Bord Gulch Allotment #04538 are meeting all land health standards.

The East Bord Gulch Allotment #04058 was assessed at two locations in 2004, one near a small spring adjacent to County Road #7, and another on an upland site. At this time the upland site was not meeting land health standards for vegetation, wildlife habitat, and special status species. The site was low on forbs and perennial grasses. Sagebrush was predominantly older plants but some recruitment was noted. There was a lack of grasses in the interspaces and some soil movement as a result. Young rabbitbrush plants are present, as well as cheat grass. "Inadequate forbs" was cited as the reason for not meeting wildlife habitat standards. It was unknown if the situation was a result of livestock use or elk use. Although the allotment is permitted only for sheep, cattle were present on the allotment during one visit. This stop was not revisited in 2006, because although the lessee had changed, there had not been adequate time to see an improvement in conditions. The spring site was visited again in 2006, and it was determined this

site was meeting all standards and had improved in condition since the last assessment. The riparian vegetation had improved in terms of age class, density and species diversity.

No utilization data has been collected on the East Bord Gulch Allotment #04058.

Utilization was last read on the House Allotment #04537 in 1988.

Utilization was read in 1992 and 1993 on the Bord Gulch Allotment #04538. There was no sign of livestock grazing in 1992, and in 1993 use on grasses was reported as "light".

There is no trend data on any of the allotments.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action

Renew the permits for Bord Gulch Ranch and Elkhead Ranch, and the lease for Bord Gulch Ranch, for a period of ten years, expiring February 28, 2018. The dates shown for cattle are from May 1 to October 31. Typically cattle would be removed by hunting season (October 1). The later date is provided and will be analyzed to add management flexibility for fall use.

In all three allotments, sheep use would be limited to three weeks only, between April 15th and June 15th each year, staying only two to three days in each pasture. Sheep trailing in the fall would be allowed only during the month of September.

Cattle would start in a different pasture each year and would remain in each pasture for two to three weeks.

The East Bord Gulch Allotment #04058 would be rested for three years, beginning in 2008. Sheep trailing would be allowed during this time.

This proposal also includes realignment of several allotment boundaries. As a result percent public land (%PL) would be adjusted. For ease of calculation, private and public lands are assumed to be equally productive.

Several range improvement projects are also proposed. These are described below and also are shown on Attachment 3, Proposed Range Improvement Locations.

The Proposed Action would also include a change to after the fact billing. This would aid in collecting accurate utilization data, as well as facilitate ease of billing for the three allotments.

The proposed permits and lease would be as follows:

Bord Gulch Ranch (#0500203)

Allotment	Livestock	Dates		%PL	AUMs
<u>Name and Number</u>	<u>Number and Kind</u>	<u>Begin</u>	<u>End</u>		
House Allotment	168 Sheep	04/15	06/15	43	29

#04537	22 Cattle	05/01	10/31	43	57
	330 Sheep	09/01	09/30	43	<u>28</u>
				Unscheduled	1
					Total 115

Bord Gulch Ranch (#0500204)

Allotment	Livestock	Dates		%PL	AUMs
<u>Name and Number</u>	<u>Number and Kind</u>	<u>Begin</u>	<u>End</u>		
East Bord Gulch	94 Sheep	04/15	06/15	100	38
#04058	12 Cattle	05/01	10/31	100	73
	195 Sheep	09/01	09/30	100	<u>38</u>
				Unscheduled	3
					Total 152

Elkhead Ranch (#0502010)

Allotment	Livestock	Dates		%PL	AUMs
<u>Name and Number</u>	<u>Number and Kind</u>	<u>Begin</u>	<u>End</u>		
Bord Gulch	265 Sheep	04/15	06/15	30	32
#04538	34 Cattle	05/01	10/31	30	62
	532 Sheep	09/01	09/30	30	<u>31</u>
				Unscheduled	1
					Total 126

The following Special Terms and Conditions would apply to the lease and both permits:

1. Cattle use may occur anytime between May 1 and October 31, but will be limited to two to three weeks in each pasture. Cattle will rotate throughout the pastures, and spring use will begin in a different pasture each year. The permittee will notify the BLM which pasture he intends to use first each year.
2. Actual Use Reports will be required to be submitted once a year by November 30.

Range Improvements

The following range improvements would be implemented in order to improve management on these allotments.

House Allotment #04537: A 1.5 inch pipeline would be installed with a vibratory ripper from an existing well on private land in T9N R93W Sec. 33 to a trough in Sec. 32. Approximately 1/8 mile would be located on public lands. This would serve to provide water in the southwest corner of the allotment, on the other side of a pasture fence from the well.

Existing mesh sheep fence between the House and Bord Gulch Allotments (between T9N R93W Secs. 33 and 34 and between 26 and 27) would be removed and replaced with four-strand barbed wire, bottom wire smooth.

East Bord Gulch Allotment #04058: From a well on private land in T8N, R93W Sec.9, a 1.5 inch pipeline would be installed with a vibratory ripper on BLM in Sec. 16 to a tank on BLM in the same section, then continue on to private land and another tank in Sec. 17. Approximately ½ mile would be on public land.

The spring in T8N R93W Sec. 15, NW ¼ NE ¼ would be developed with a French drain and piped to a 700 gallon tank. The tank would be equipped with a grouse guzzler and be controlled by a float valve shutoff, and a “Y” would divert overflow to the reservoir. A barbed-wire fence would be installed around the spring to protect and enhance riparian vegetation around the spring.

There are two existing wells on BLM land in T8N R93W Sec. 22. One of these is pumped to the barn across MCR 17. The other one would be piped across BLM in Sec. 22, then across private land in Sec. 21, then across BLM in Sec. 16 to a storage tank. The storage tank would gravity feed to a trough in Sec. 16 and an adjacent pasture in Sec. 21.

Brushbeat big sagebrush in T8N R93W, Sec. 16 adjacent to three reservoirs, which have brushed in. This would be a strip approximately 200 yards long and 60’ wide within the entire drainage.

Brush control in T8N R93W, Sec. 16 and 21 to control big sagebrush and prickly pear. The prickly pear in T8N R93W, Secs. 16 and 21 would be sprayed with an appropriate chemical. This is approximately 20 acres surrounding the barn and facilities in Sec. 21 and a yet-to-be-determined acreage within Sec. 16. Spraying would only occur under a BLM approved pesticide use proposal and be implemented by a qualified applicator. The big sagebrush would be burned or brush beat followed by a no-till seeding of native species. After treatment, this pasture would be rested for two growing seasons.

Brush control in T8N R93W, Sec. 22, south of MCR 7. This would be approximately 80 acres of sagebrush treatment designed to remove decadent brush and allow understory vegetation to compete. The permittee would remove old fences in this area and replace mesh sheep wire along MCR 7 with four strand barbed wire, bottom wire smooth.

Remove old structures on BLM. The old corrals would remain and be maintained by the permittee. The granary, shed, dog kennels, and other trash would be removed. The perimeter fence is not on the property line. The old fence would be relocated as necessary to put it on line.

Bord Gulch Allotment #04538: A water well would be drilled in Sec. 26 with pipeline to three tanks (located in Secs. 26 and 27); all tanks will have grouse waterers.

Stabilize headcuts in the meadows in T9N R93W Secs. 23 and 26 by placing large rocks in the drainages at the locations of the headcuts.

There is an existing well on private in Sec. 28; develop a pipeline to a tank on BLM on the adjacent Upper Spring Creek Allotment #04536, permitted to John Maneotis.

All range improvement implementation would be subject to the following:

1. To protect nesting grouse, surface disturbing activities (including site preparation, fence demolition/construction, water developments and improvements, and vegetation treatments) shall not occur from March 1 to June 30 in the following areas: *all* of Bord Gulch and House Allotments *except* the N ½ of Sec. 7 of T9N R93W; and *all* of East Bord Gulch Allotment. Restricted areas as listed may be modified by a BLM biologist upon site-specific examination (e.g., using detailed maps) of individual actions. If the proponent wishes to construct during this time period, a site evaluation will be conducted by a qualified biologist to determine presence/absence of nesting habitat. If surveys are conducted by a contractor, a formal report will be submitted to a BLM biologist for review prior to approval. The timing restriction would not apply to those areas unsuitable for sage grouse nesting.

2. Prior to any surface disturbing activities in Sec. 15 of T8N R93W; Sec. 16 of T8N R93W; N ½ of Sec. 21 of T8N R93W; or N ½ of Sec. 22 of T8N R93W, a BLM biologist will survey for the presence of active ferruginous hawk nests. If any active nests are located, there shall be no surface disturbing activity within 1/8 mile of the active nest(s) and surface disturbing activities may not occur between February 1 and August 15 within 1 mile of active nests. An exception to this stipulation may be granted depending on nest status and/or presence of topographical buffers.

3. To protect wintering elk, surface disturbing activities (including site preparation, fence demolition/construction, water developments and improvements, and vegetation treatments) shall not occur from December 1 through April 30. Under certain conditions, the last 60 days of this timing period may be suspended at the discretion of a BLM biologist. A formal request must be submitted to the BLM for an exception to this timing restriction. *Where feasible*, fence design should include the use of high-tensile wire.

4. Prior to construction, all projects will be subject to a Class III cultural resources survey. Projects may be modified and or relocated depending on the results of survey.

5. A Form 4120-6 Cooperative Agreement for Range Improvements will be prepared and signed by both the permittee/lessee and the authorized officer prior to implementation.

No Action Alternative

The No Action Alternative would be to renew the existing permits and lease without changes. No rotation system will be implemented, and no range improvements will be constructed.

The existing permits and lease are as follows:

Bord Gulch Ranch (#0500203)

<u>Name and #</u>	<u>Livestock # and kind</u>	<u>Dates</u>	<u>%PL</u>	<u>AUMs</u>
House Allotment	417 Sheep	05/01 to 06/01	79	69
#04537	50 Cattle	08/01 to 08/15	79	19
	240 Sheep	10/10 to 10/31	79	<u>27</u>
			Total	115

The following Special Terms and Conditions would apply:

- 1) The allotment will be deferred until seed ripe on year in four.
- 2) Spring sheep use will be limited to 60% of the total AUMs.
- 3) Cattle use may occur anytime between July 15 and October 31, but will be limited to 2 weeks in each pasture.
- 4) Cattle AUMs may be expanded for fall sheep use not taken, and vice versa, but not for spring sheep use not taken.

Bord Gulch Ranch (#0500204)

<u>Allotment</u>	<u>Livestock</u>	<u>Dates</u>	<u>%PL</u>	<u>AUMs</u>
<u>Name and #</u>	<u># and kind</u>			
East Bord Gulch #04058	108 Sheep	05/01 to 11/30	100	152

There are no Special Terms and Conditions.

Elkhead Ranch (#0502010)

<u>Allotment</u>	<u>Livestock</u>	<u>Dates</u>	<u>%PL</u>	<u>AUMs</u>
<u>Name and #</u>	<u># and kind</u>			
Bord Gulch #04538	104 Sheep	05/05 to 10/15	56	63
	21 Cattle	05/05 to 10/15	56	63
			Total	126

The following Special Terms and Conditions would apply:

- 1) Sheep, goats or cattle may be authorized on this allotment.
- 2) An assessment of the riparian resources associated with Last Chance Spring and LU Spring #344 within the Bord gulch Allotment is required early in the term of this permit. If problems are identified and determined to be caused by livestock grazing practices, then corrective actions or modifications to this permit will be implemented.
- 3) In sage grouse nesting habitat, manage livestock grazing to promote a vegetative condition desired for nesting sage grouse. Maintain 10-15% residual grass cover at least 6 inches high in the spring. Where sagebrush is present and the potential exists, maintain sagebrush cover with a canopy layer between 15-35%. Manage for vigorous stands with a variety of age classes.
- 4) Grazing on the pastures containing public lands in the allotment is limited to 71 days sometime between May 5 and October 15 as part of a rotation grazing system with deeded land pastures.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED:

No Grazing Alternative

No livestock grazing would take place under this alternative. This alternative was eliminated from detailed study because it was not a realistic, implementable alternative, nor did it meet the requirements of the Federal Land Policy and Management Act of 1976. When the RMP was approved, it was determined that livestock grazing was an appropriate use of this land. Eliminating grazing is not analyzed because no new issues or concerns have been identified that may require this action.

AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES/MITIGATION MEASURES

CRITICAL RESOURCES

AIR QUALITY

Affected Environment: None of the allotments lie within any special designation air sheds or non-attainment areas.

Environmental Consequences, all alternatives: Renewing the grazing authorizations for sheep and cattle on the East Bord Gulch, Bord Gulch, and House Allotments would not cause regional air quality impairment under either of the alternatives. Some localized dust may result from driving on unpaved roads, but this would be negligible.

Short term, local impacts to air quality resulting from gasoline and diesel engine exhaust and dust from surface disturbing operations would result during well drilling, trenching and brush beating activities. The emissions from these activities consist of both gaseous and particulate fractions. Gaseous constituents from diesel engine exhaust include carbon dioxide, carbon monoxide, nitric oxide, nitric dioxide, oxides of sulfur and hydrocarbons. Fine particulates of soot from diesel exhaust and fugitive dust from soils would be localized to the project area. The health effects of these emissions are largely from long-term and occupational exposure in confined areas.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 2/4/08

AREA OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Not present.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Rob Schmitzer 10/24/07

CULTURAL RESOURCES

Affected Environment: Grazing permit and lease renewals are undertakings under Section 106 of the National Historic Preservation Act. Range improvements associated with the allotments (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 (10.5.08) was completed for each allotment on October 30, 2007 by Robyn Watkins Morris, Little Snake Field Office Archaeologist. The assessment followed the procedures and guidance outlined in the 1980 National Programmatic Agreement Regarding The Livestock Grazing And Range Improvement Program, IM-WO-99-039, IM-CO-99-007, IM-CO-99-019, and IM-CO-01-026. The results of the assessment are summarized in the table below. Copies of the cultural resource assessments are in the Field Office archaeology files.

Data developed here was taken from the cultural program project report files, site report files, and base maps kept at the Little Snake Field Office as well as from GLO maps, BLM land patent records, An Overview of Prehistoric Cultural Resources Little Snake Resource Area, Northwestern Colorado, Bureau of Land Management Colorado, Cultural Resources Series, Number 20, and An Isolated Empire, A History of Northwestern Colorado, Bureau of Land Management Colorado, Cultural Resource Series, Number 2 and Appendix 21 of the Little Snake Resource Management Plan and Environmental Impact Statement, Draft February 1986, Bureau of Land Management, Craig, Colorado District, Little Snake Resource Area.

The table below is based on the allotment specific analysis developed for the allotments in this EA. The table shows known cultural resources, eligible and need data, and those that are anticipated to be in each allotment. Fieldwork for the cultural resources on the table will be carried out in current fiscal year or within the term of the permit and lease.

Acres Inventoried at a Class III level ²	Acres NOT inventoried at a Class III Level	Percent-%-of Allotment inventoried at a Class III level	Number of Cultural Resources known in allotment	High Potential of Historic Properties	Eligible or Need Data Sites – Known in Allotment (Site Numbers)	Estimated Sites for the Allotment** (Total Number)	Management Recommendations (Add'l inventory required and historic properties to be visited)
38	9894	.3	0	Yes	0		Survey near historic

							wagon road and stage road
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(Note: *Acres are derived from GIS allotment maps. 2. BLM and other acres in the allotment. See allotment specific analysis form. **Estimates of site densities are based on known inventory data. Estimates represent a minimum figure which may be revised upwards based on future inventory findings.)

Six cultural resource inventories were previously conducted within the allotments resulting in the complete coverage inventory of 38 acres and the recording of no cultural resources. The GLO maps from the 1880s and early 1900s show a stage road and stage station through and in the House and Bord Gulch Allotments and a military road through the East Bord Gulch Allotment.

If historic properties are located during the subsequent field inventory, and BLM determines that grazing activities will adversely impact the properties, mitigation will be identified and implemented in consultation with the Colorado SHPO.

Environmental Consequences, all alternatives: The direct impacts that 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 include soil erosion, gulying, and increased potential for unlawful collection and vandalism. Continued grazing may cause substantial ground disturbance and cause cumulative, long term, irreversible adverse effects to historic properties.

Cultural Review Process

Monitoring of the previous years grazing permit and lease renewal environmental documentation from FY98 through FY05 has been carried out. These reports represent three field seasons of evaluation work on the eligible and need data sites. The fieldwork conducted in 2000 through 2003 and 2005, identified impacts to some of the cultural resources being evaluated. This information is covered in the following reports:

Keesling, Henry S. and Gary D. Collins, Patrick C. Walker
 2000 Cultural Resource Evaluation of Known Eligible and Need Data Sites within Range Allotments for Range Permit Renewal EA's FY98 and FY99. Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy on file at that office.

Collins, Gary D., and Patrick C. Walker, Sam R. Johnson, Henry S. Keesling
 2001 **Addendum to Cultural Resource Evaluation of Known Eligible and Need Data Sites within Range Allotments for Range Permit Renewal EAs FY98 and FY99, Range Permit Renewal EA's FY2000 and FY2001.** Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy on file at that office.

Collins, Gary D. and Ryan J. Nordstrom, Henry S. Keesling
 2002 **The Second Addendum to The Cultural and Need Data Sites Within Range Allotments for Range Permit Renewal EA's FY98, FY99, FY00, FY01, and FY02.**

Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy on file at that office.

Collins, Gary D. and Henry S. Keesling
2003 **The Third Addendum to The Cultural and Need Data Sites Within Range Allotments for Range Permit Renewals EA's FY98, FY99.** Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy on file at that office

Collins, Gary D. and Henry S. Keesling
2005 **The Fourth Addendum Range Permit Renewal FY04 and FY05 to The Cultural Resource Evaluation of Known Eligible and need Data Sites Within Range Allotments for Range Permit Renewal EA's FY00, FY01, FY02, FY03.** BLM 10.27.05. Bureau of Land Management, Little Snake Field Office, Craig, Colorado. Copy of file at that office.

BLM has committed to a ten year phased evaluation being conducted for cultural resources that takes into account identified livestock concentration areas and the cultural resources that are either eligible and/or need data and to carrying out mitigation on cultural resources that require this action. The phased monitor and mitigation approach will mitigate identified adverse effects, significant impacts and data loss, (NHPA Section 106, 36CFR800.9; Archaeological Resource Protection Act 1979; BLM/Colorado SHPO Protocol 1998; NEPA/FLPMA requirements) to an acceptable level.

The GIS mapping and evaluation effort will establish areas that have potential conflicts between livestock and prehistoric cultural resources. The GIS maps will provide a computer generated visual departure point for the proposed cultural fieldwork. GIS maps using USGS and BLM best available data, will be created showing springs, stream course features, riparian areas, and slopes that are greater than 30% slope within the allotment. Current understanding of prehistoric settlement and subsistence patterns will be applied to the GIS map review and used to establish prehistoric cultural areas. These potential livestock concentration areas will be evaluated in the field.

Livestock impacts may cause cumulative effects, some of which will be significant, and will cause long-term, irreversible, potentially irretrievable adverse impacts and data loss. However, the phased identification and evaluation fieldwork will identify mitigation measures that will reduce these impacts (NHPA Section 106; 36CFR800.9; Archaeological Resource Protection Act 1979; BLM/Colorado SHPO Protocol 1998; NEPA/FLPMA requirements), to an acceptable level.

Other project specific Class III surveys initiated by the BLM, industry, or ranching will identify previously unrecorded cultural resources within these allotments. Newly identified cultural resources will need to be mitigated in relationship to the proposed project(s). Further, these cultural resources will be incorporated into current and future grazing review efforts to be evaluated and monitored as necessary.

Mitigative Measures: Standard Stipulations for cultural resources are included in the Standard Terms and Conditions, see Attachment 2.

Allotment Specific Stipulations

1. GIS maps based upon stream course features and springs from the 7.5 minute USGS maps and BLM best available riparian/spring data in this office will be used to initially establish evaluation areas for livestock concentrations. Current archaeological understanding of settlement and subsistence patterns for prehistoric cultural resources will be applied to these maps. Identified livestock concentration areas will be field evaluated. Those areas with no livestock impacts but with potential for cultural resources will under go the same Class III survey discussed below. This survey will be conducted documenting archaeological resources which may be impacted if grazing practices change in the future. Identified concentration areas that exhibit livestock impacts will have the following cultural surveys:

Springs, riparian areas, streams or creeks, and intermittent drainage will have a Class III survey in the area of concentration that includes an additional 50 feet around the impacted area. Identified cultural resources will be recorded to include the total site area and mitigation developed.

Springs will have a Class III survey in the area of concentration and include an additional 50 feet around the impacted area. Identified cultural resources will be recorded to include the total site area and mitigation developed.

2. GIS maps showing slope potential, 30% or greater, where rock art and rock shelters are predicted to occur, will be used to initially establish evaluation areas for Class III survey. These areas will be evaluated for livestock concentrations. Identified concentration areas will have the following cultural surveys performed:

Potential rock shelters, rock art areas will be evaluated to see if cultural materials are present. When cultural resources are identified the site will be recorded and appropriate mitigation will be developed.

3. Previously identified sites, table above, and new sites recorded and evaluated as eligible and/or need data during other project specific Class III survey will need to be evaluated as well. Initial recording of new sites and re-evaluation of the known sites will establish current condition of the resource and help in developing a monitoring plan for all sites. Some sites will have to be monitored more often than others. Sites that are impacted by grazing activities will need further monitoring, physical protection or other mitigative measures developed.

4. Site monitoring plans, other mitigation plans, will be developed and provided to the Colorado State Historic Preservation Officer in accordance with the Protocol (1998) and subsequent programmatic agreements regarding grazing permit renewals.

Conducting Class III survey(s), monitoring, and developing site specific mitigation measures will mitigate the adverse effects, data loss, and significant impacts (NHPA Section 106, 36 CFR 800.9; Archaeological Resource Protection Act 1979; BLM Colorado and Colorado SHPO Protocol 1998; and NEPA/FLPMA requirements) to an acceptable level.

The Colorado State Historic Preservation Officer (SHPO) agreed with the Bureau of Land Management, Colorado, (BLM) that the BLM could issue its Range Renewal Permits with the proposed Cultural Resource Management actions, monitoring known eligible and need data sites and conducting Class III and/or modified Class III surveys on selected areas of BLM lands within in a ten year time frame (Cultural Matrix Team Meeting 26 January 1999, Colorado BLM State Office).

The Little Snake Field Office will initiate the monitoring of known eligible and need data sites the first field season following the issuing of the permit if possible. This survey will be based upon an accepted, BLM and SHPO, research design that will establish criteria for evaluation of the sites for livestock impacts and any needed mitigation and future monitoring needs.

Name of specialist and date: Robyn Watkins Morris 10/30/07

ENVIRONMENTAL JUSTICE

Affected Environment: The three allotments are located in an area devoid of year-round populations.

Environmental Consequences, all alternatives: No populations would be affected by physical or socioeconomic impacts from the project. Renewing the grazing permit would not directly affect the social, cultural, or economic well being and health of Native American, minority or low-income populations.

Mitigative Measures: None

Name of specialist and date: Louise McMinn 10/23/07

FLOOD PLAINS

Affected Environment: Short portions of Lay Creek and Bord Gulch flow across BLM lands within these allotments.

Environmental Consequences, Proposed Action: Rotating early spring use within pastures and limiting livestock use to three weeks within the grazing period would provide controlled livestock management that would reduce the impacts of livestock on floodplain resources. The proposed brush beating and other upland vegetation treatments would enhance forage production within the allotments and coupled with the proposed water developments would improve grazing distribution. Trampling and compaction of floodplain soils would be reduced with both of these

grazing practices.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 2/5/08

INVASIVE, NONNATIVE SPECIES

Affected Environment: Invasive and noxious weeds occur in the vicinity of these allotments. Purple mustard, yellow alyssum, and cheatgrass are annual invasive weeds that are common in this area. Perennial and biennial noxious weeds in this area include Russian knapweed, hoary cress (whitetop), houndstongue, leafy spurge, Canada thistle, and other biennial thistles.

Environmental Consequences, all alternatives: The impact of increased invasive and/or noxious weed establishment is very similar under either of the alternatives. Vehicular access to public land for grazing operations and recreational activities, livestock and wildlife movement, as well as wind and water can cause weeds to spread into new areas. Surface disturbance due to livestock concentration and human activities associated with grazing operations, vegetation treatments, and water developments can also increase weed presence. Detection of any noxious weeds that are introduced would be facilitated in areas that have been brush beat or are near water developments. Land practices and land uses by the livestock operator and their weed control efforts would largely determine the identification and potential occurrence of weeds within these allotments.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 2/4/08

MIGRATORY BIRDS

Affected Environment: Big sagebrush shrubland and dryland crops in this region provide potential roosting, nesting, and/or foraging habitat for the following USFWS 2002 Birds of Conservation Concern: golden eagle, northern harrier, ferruginous hawk, Swainson's hawk, vesper sparrow, Brewer's sparrow, sage sparrow, and loggerhead shrike. Although several of these species are known to breed in the area, except for ferruginous hawks, specific nest locations are not known. Three ferruginous hawk nests occur within the East Bord Gulch Allotment, while two nests occur outside but within one mile of this allotment. Each of these nests was last observed in 1982 and, consequently, activity status is unknown.

Environmental Consequences, Proposed Action: Livestock grazing can alter vegetation structure, composition, and function. Effects on migratory birds are dependent on the species of interest and may be adverse or beneficial depending on grazing timing, frequency, and intensity. Birds may be displaced as a result of grazing or range improvements and trampling of nests, eggs, or young could occur. Grazing would occur during breeding season for most of these species. However, the Proposed Action would not negatively impact migratory bird populations

on a landscape level. In the long term, habitat value for migratory birds in these allotments would improve as a result of proposed habitat treatments, fence and water improvements, and improved cattle distribution.

Environmental Consequences, No Action: Habitat objectives for the House Gulch and Bord Gulch Allotments are being met. In contrast, habitat within the East Bord Gulch Allotment is not meeting objectives. On the East Bord Gulch Allotment, sagebrush stands are predominantly mature, and native grass and forb species are lacking in composition. Without active management to set back succession (vegetation manipulation, seeding, grazing modification, etc.), these conditions and trends would continue under the current management scheme.

Mitigative Measures: None

Name of specialist and date: Charlie Sharp 10/25/07

NATIVE AMERICAN RELIGIOUS CONCERNS

A letter was sent to the Uinta and Ouray Tribal Council, Southern Ute Tribal Council, Ute Mountain Ute Tribal Council, and the Eastern Shoshone on July 11, 2007. The letter listed the grazing allotments up for renewal in FY07 and included a map of the areas. A follow up phone call was performed on August 14, 2007. No comments were received (Letter on file at the Little Snake Field Office). This project requires no additional notification.

Name of specialist and date: Robyn Watkins Morris 10/30/07

PRIME & UNIQUE FARMLANDS

Affected Environment: There are no Prime and Unique Farmlands present within any of the three allotments.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Ole Olsen 2/4/08

T&E SPECIES - SENSITIVE PLANTS

Affected Environment: There are no BLM sensitive plant species present on any of the three allotments.

Environmental Consequences, all alternatives: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 10/25/07

T&E AND SENSITIVE ANIMALS

Affected Environment: No federal status species or habitat occurs within any of the three allotments. The area provides breeding, nesting, and brood-rearing habitat for greater sage-grouse, most of which occurs in T9N R93W. Ten leks occur outside but within two miles of the allotments.

Three ferruginous hawk nests occur within the East Bord Gulch Allotment, while two nests occur outside but within one mile of this allotment. Each of these nests was last observed in 1982 and, consequently, activity status is unknown.

Environmental Consequences, all alternatives: Federal status species and their habitat would not be affected by this action. Livestock grazing can alter vegetation structure, composition, and function. Effects on sensitive wildlife may be adverse or beneficial depending on grazing timing, frequency, and intensity. Potential impacts include habitat degradation, fragmentation, and loss; individual displacement, and reduced fitness. Such impacts are more significant during critical seasons, such as wintering or breeding. Habitat value for sage-grouse and raptor prey base animals would improve as a result of proposed habitat treatments, fence and water improvements, and improved cattle distribution.

Mitigative Measures: None

Name of specialist and date: Charlie Sharp 10/25/07

T&E SPECIES – PLANTS

Affected Environment: There are no federally listed threatened or endangered plant species present on any of the three allotments.

Environmental Consequences, all alternatives: None

Mitigative Measures: None

Name of specialist and date: Hunter Seim 10/25/07

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no hazardous materials present on any of the three allotments.

Environmental Consequences, all alternatives: Potential releases of hazardous materials could occur due to vehicular access for livestock management operations or range improvement implementation or maintenance. Coolant, oil, and fuel are materials that could potentially be released. Due to the limited amount of vehicular activity that would be required, the potential for releases of any of these materials is low and if a release were to occur, it would be minimal

and highly localized and not result in an adverse impact to any of the allotments.

Mitigative Measures: None

Name of specialist and date: Hunter Seim 2/13/08

WATER QUALITY - GROUND

Affected Environment: The Tertiary Wasatch and Green River formations are overlain by quaternary soils.

Environmental Consequences, all alternatives: Neither alternative would impact the ground water of the Wasatch aquifer.

Mitigative Measures: None

Name of specialist and date: Jennifer Maiolo 10/29/07

WATER QUALITY - SURFACE

Affected Environment: Runoff water from the Bord Gulch, East Bord Gulch, and House Allotments flows into Bord Gulch and Lay Creek. Bord Gulch is an ephemeral tributary of Lay Creek which is an intermittent tributary to the Yampa River. The Yampa River needs to have water quality that can support Aquatic Life Warm 1, Recreation 1a, Water Supply, and Agriculture. Lay Creek needs to have water quality that can support Aquatic Life Warm 2, Recreation 2, and Agriculture. Lay Creek is designated as Use Protected. None of these stream segments are listed as having impaired water quality and all of these stream segments are supporting their classified uses.

Environmental Consequences, Proposed Action: Slight benefits to the water quality of runoff draining from these allotments would be expected with implementation of the Proposed Action. The scheduled rest of the East Bord Gulch Allotment and rotational grazing practices that would be implemented in all of the allotments would benefit the soil and forage resources. The proposed vegetation treatments and water developments would improve grazing distribution, resulting in improved water quality through improved soil infiltration and increased ground cover.

Environmental Consequences, No Action: Continuing existing grazing practices on these allotments would not to impair water quality. Water quality would continue to support the present classified uses.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 2/5/08

WETLANDS/RIPARIAN ZONES

Affected Environment: Short portions of Lay Creek and Bord Gulch flow across BLM lands within these allotments. The main stems of Lay Creek and Bord Gulch have the heaviest flow in response to melt of the winter snowpack. During high flows coarse sediments are moved and re-deposited within the channel. Except for a short segment of Lay Creek within the East Bord Gulch Allotment these stream segments on BLM lands within these allotments can be characterized as sandy washes and they do not exhibit any riparian character.

House Allotment #04537

No riparian systems are present.

East Bord Gulch Allotment #04058

Lay Spring (BLM Spring 49-13) is a small seep located in the NW ¼ NE ¼ Sec. 15, T8N R93W. Water seeps from the source and extends to a pond downstream with an approximate riparian extent of 0.34 acres. The wetland supports diverse age classes of Baltic rush, spike rush, and bulrush where wet soils are present and foxtail barley occupies adjacent drier soils. High plant vigor is present throughout the community. It is currently rated at proper functioning condition.

A floodplain/wetland associated with Lay Creek is located in the SW ¼ SW ¼ Sec. 22, T8N R93W. It is a lentic system of approximately three acres. The area is bisected by a fence with private land on the south side and public on the north. There is a contrast in plant vigor and overall riparian community health between the two sides with higher vigor and better community structure present on the private side of the fence, likely due to increased soil compaction on the public land side. Baltic rush, timothy, and small, interspersed patches of Nebraska sedge account for much of the vegetation along with high amounts of Canada thistle. Upland species are encroaching onto the western edge of this system where more deposition of coarse sediments is present. It is currently rated as functioning at risk with no apparent trend.

Bord Gulch Allotment #04538

A lentic system and two springs are present in a tributary draw to Lay Creek. The lentic draw encompasses several hundred feet of three small draws, their confluence, and approximately one-half mile below the confluence. The total area of this system is 1.67 acres. The system contains several headcuts and is currently rated as functioning at risk with an upward trend.

BLM Spring No. 49-01 is located at the confluence of two small draws each with large headcuts. BLM Spring No. 49-02 is located downstream of 49-01 and was developed at one time (Project No. 4102). There is no current functional rating for the two springs.

Environmental Consequences, Proposed Action: The scheduled rest of the East Bord Gulch Allotment would be beneficial to riparian vegetation at Lay Spring and the Lay Creek wetland/floodplain area. Rotational grazing practices that would be implemented in all of the allotments would protect the riparian resources within these allotments. A few years of rest and the shorter duration of livestock use on the wetland/floodplain area would alleviate soil compaction and improve soil infiltration, resulting in improved health of the riparian community along Lay Creek.

The proposed spring development of Lay Spring would only be undertaken if it can be demonstrated that the spring is discharging water. This would insure that the capability of this riparian system is maintained. The construction of a protective fence around the spring would eliminate livestock trampling on the hill slope and some of the adjacent leveler portion below the hill slope. Presently this area doesn't exhibit a strong riparian character, but this could be due to past trampling and soil compaction. Development of the spring and protection of the area would allow for riparian protection and development commensurate with the site potential.

Stabilizing headcuts within the wetland draw would help to maintain the water table and reduce erosion of riparian soils. Stabilizing would allow additional sediments to be retained within the draw leading to aggradation and widening of the bottom and elevating the water table.

Environmental Consequences, No Action: Lay Spring would not be developed and would likely continue to show an upward trend towards its full potential with allotment use by the present livestock operator. Headcuts within the draws in the Bord Gulch Allotment could still be treated under casual use.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 2/8/08

WILD & SCENIC RIVERS

Affected Environment: Not present.

Environmental Consequences, all alternatives: None

Mitigative Measures: None

Name of specialist and date: Rob Schmitzer 10/24/07

WILDERNESS, WSAs

Affected Environment: Not present.

Environmental Consequences: None

Mitigative Measures: None

Name of specialist and date: Rob Schmitzer 10/24/07

NON-CRITICAL ELEMENTS

UPLAND VEGETATION

Affected Environment:

House Allotment #04537

This allotment is dominated by a sagebrush-grass plant community. Dominant plants present include Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), bitterbrush (*Purshia tridentata*), green rabbitbrush (*Chrysothamnus viscidiflorus*), rubber rabbitbrush (*C. nauseosus*), prickly pear (*Opuntia* sp.), shrubby buckwheat (*Eriogonum* sp.), wild onion (*Allium acuminatum*), sego lily (*Calochortus nuttallii*), Hood's phlox (*Phlox hoodii*), western wheatgrass (*Agropyron smithii*), crested wheatgrass (*A. cristatum*), needle-and-thread (*Stipa comata*), Indian ricegrass (*Oryzopsis hymenoides*), prairie junegrass (*Koeleria pyramidata*), squirreltail (*Sitanion hystrix*), basin wildrye (*Elymus cinereus*), and Sandberg bluegrass (*Poa sandbergii*). The community also includes non-native cheatgrass (*Bromus tectorum*) and yellow alyssum (*Alyssum alyssoides*). While not problematic, cheatgrass abundance is high in isolated patches. Overall community vigor, diversity, and production appropriate for the soils and climactic conditions.

East Bord Gulch Allotment #04058

This allotment is dominated by a sagebrush-grass plant community. Dominant plants present include Wyoming big sagebrush, basin big sagebrush, green rabbitbrush, rubber rabbitbrush, western wheatgrass, Indian ricegrass, squirreltail, and Sandberg bluegrass. Non-native cheatgrass is present throughout, but does not make up a large component of the community. Perennial grasses are low in abundance and nearly absent in the spaces between shrubs. Forbs are also lacking throughout the community. Most big sagebrush plants are older, but some recruitment of younger plants is occurring.

Bord Gulch Allotment #04538

This allotment is dominated by a sagebrush-grass plant community. Dominant plants present include Wyoming big sagebrush, bitterbrush, green rabbitbrush, prickly pear, arrowleaf balsamroot (*Balsamorhiza sagittata*), scarlet globemallow (*Spheralcea coccinea*), lupine, needle-and-thread, western wheatgrass, streambank wheatgrass (*Agropyron riparian*), bluebunch wheatgrass (*A. spicatum*), Indian ricegrass, basin wildrye, and Sandberg bluegrass. Non-native cheatgrass and yellow alyssum are present throughout but not problematic. There is evidence that the allotment burned a number of years ago and the composition of the community is appropriate for an early to mid-seral site.

Environmental Consequences, Proposed Action: This alternative would result in reduced spring/growing season use with increased control of that use. In the Grounds and Bord Gulch Allotments, this would maintain the existing desirable plant community conditions. Complete rest from livestock grazing for three years coupled with the proposed brush beating on the East Bord Gulch Allotment would reduce decadent shrubs and reduce competition for herbaceous species. Increased reproductive capability for perennial grasses would also occur.

Each of the proposed water developments would result in direct, highly localized impacts to plants through crushing and/or complete removal, and areas immediately around water sources would experience decreased plant cover due to soil compaction caused by livestock concentration. However, each of these improvements would lead to an overall improvement in and maintenance of productive, diverse plant communities that are capable of supporting

livestock and wildlife while continuing to provide watershed protection by providing for increased control and distribution of livestock with less reliance on riparian areas, particularly during the summer and early fall dormant seasons.

The proposed brush beating on the East Bord Gulch Allotment would suppress areas of late seral decadent sagebrush and allow for a return of a more abundant and diverse grass and forb component to the community. The sagebrush mortality caused by brush beating would result in more available water, sunlight, and space that herbaceous species would take advantage of. Over fifteen to twenty five years, mature big sagebrush plants would return to these areas. Brush beating some areas but not others would also result in greater age-class diversity among sagebrush across the landscape that would be more representative of the range of natural variability for such communities.

Mitigative Measures: None

Name of specialist and date: Hunter Seim 1/14/08

SOILS

Affected Environment:

Bord Gulch Allotment #04538

The soil mapping units on the public lands within this allotment are Berlake-Maysprings complex, 3 to 12 percent slopes, Berlake-Taffom-Gretdivid complex, 10 to 20 percent slopes, Ironsprings loamy sand, 1 to 15 percent slopes, Ironsprings-Maysprings-Gretdivid loamy coarse sands, 10 to 20 percent slopes and Styers-Ironsprings-Maysprings complex, 10 to 20 percent slopes. One site (Site #29) within this allotment was evaluated for land health for the Lay Creek Watershed Land Health Assessment. The soils on that site representative of the Berlake-Taffom-Gretdivid complex, 10 to 20 percent slopes mapping unit were found to be very stable with a Soil Surface Characteristics rating of 5; all of the other indicators of the upland soil standard were met.

House Allotment #04537

Soil mapping units are the same as the Bord Gulch Allotment with the addition of Forelle-Evanot complex, 1 to 12 percent slopes and Cowestglen sandy loam, 0 to 3 percent slopes along the valley of Lay Creek. One site (Site #28) within this allotment was evaluated for land health for the Lay Creek Watershed Land Health Assessment. The soils on that site representative of the Ironsprings loamy sand, 1 to 15 percent slopes mapping unit were found to be stable with a Soil Surface Characteristics rating of 12; all of the other indicators of the upland soil standard were met.

East Bord Gulch Allotment #04058

The primary soil mapping units on the public lands within this allotment are 130-Maysprings coarse sandy loam, 3 to 12 percent slopes; Coyet-Crestman, Moist complex, 20 to 50 percent slopes; Pinelli clay loam, 3 to 15 percent slopes; Ironsprings loamy sand, 15 to 30 percent slopes; and Rock River sandy loam, 12 to 25 percent slopes. An allotment specific land health

assessment occurred on a site within this allotment in November 2004. Upland soils were found to have an overall Soil Surface Characteristics rating of 27 indicating slight erosion, but 3 of the 7 factors exhibited moderate erosion characteristics. The soils on this site were representative of the Maysprings coarse sandy loam, 3 to 12 percent slopes mapping unit. The erosion that was present was due to a lack of perennial grasses and forbs in the inner space between shrubs. These deficiencies in the diversity of the native plant community indicate that the upland soil standard was marginally met.

Environmental Consequences, Proposed Action: The Proposed Action Alternative would alternate early spring use and limit use in each pasture during the grazing period. These grazing practices will allow the forage resource to increase in vigor, production and abundance. Increased soil cover by vegetation and litter and increased below ground biomass of roots and microbes would lead to improved upland soil health in all of the allotments. The proposed rest for the East Bord Gulch Allotment would accelerate these processes and increase colonization of the inner spaces with native grass and forb species. Complete rest from livestock grazing for three years coupled with the proposed brush beating on the East Bord Gulch Allotment would improve herbaceous species cover and protection of the soil resource.

Each of the areas to be developed for livestock watering would receive concentrated use by livestock. After the initial disturbance these areas would be more susceptible to wind erosion but it would be expected as the soils become more compacted and organic matter begins to accumulate this erosion hazard will diminish. Increased soil compaction would lead to additional runoff from the site but the rapid to moderately rapid infiltration rates on the adjacent undisturbed soils and within the adjacent drainages would limit the area of impact to a short distance from these developments. The proposed water developments and vegetative treatments would enhance upland forage resources throughout the allotments with improved grazing distribution.

Mitigative Measures: None

Name of specialist and date: Ole Olsen 2/8/08

WILDLIFE, AQUATIC

Affected Environment: Aquatic habitat in this allotment is limited to several lentic springs and ponds and seasonal water in Bord Gulch. These systems support invertebrates, amphibians, and reptiles.

Environmental Consequences, Proposed Action: Potential impacts from livestock grazing include trampling of individuals or nests/eggs, water displacement, sedimentation and nitrification; and removal or degradation of shading vegetation. Habitat value for aquatic species in these allotments would improve as a result of proposed habitat treatments, fence and water improvements, and improved cattle distribution.

Environmental Consequences, No Action: Given that aquatic habitat on these allotments is currently of acceptable quality under existing management, this alternative would not result in

degradation of aquatic habitat.

Mitigative Measures: None

Name of specialist and date: Charlie Sharp 10/25/07

WILDLIFE, TERRESTRIAL

Affected Environment: The area provides habitat for a variety of species including mule deer, elk, small mammals, birds, and reptiles. Elk severe winter range occurs throughout these allotments.

Environmental Consequences, Proposed Action: Livestock compete for forage with wild ungulates, particularly elk. Consistent livestock utilization exceeding 50% of forage species or uneven grazing distribution degrades habitat and forage bases. Potential impacts for other species include habitat degradation, fragmentation, and loss; individual displacement, and reduced fitness. Depending on their design, fences impede big game movement and migration. Such impacts are greater during critical seasons, such as winter or reproduction. The wire spacing and construction of the proposed fences is designed to minimize these impacts as much as possible while still being effective at controlling cattle. Under the Proposed Action, habitat value for elk and other species would improve as a result of vegetation treatments, fence and water enhancements, and improved cattle distribution.

Environmental Consequences, No Action: Habitat conditions for the House Gulch and Bord Gulch Allotments are of acceptable quality. In contrast, habitat within the East Bord Gulch Allotment is in poor condition due to predominantly mature sagebrush stands and a lack of native grasses and forbs. Without active management to set back succession (vegetation manipulation, seeding, grazing modification, etc.), these conditions and trends would continue.

Mitigative Measures: None

Name of specialist and date: Charlie Sharp 10/25/07

OTHER NON-CRITICAL ELEMENTS: For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Fluid Minerals	JAM 10/29/07		
Forest Management	AJM 10/29/07		
Hydrology/Ground			JAM 10/29/07
Hydrology/Surface		OO 2/4/08	
Paleontology		JAM 10/29/07	
Range Management		JHS 1/24/08	

Realty Authorizations		LM 10/23/07	
Recreation/Travel Mgmt		RS 10/24/07	
Socio-Economics		LM 10/23/07	
Solid Minerals	JAM 10/29/07		
Visual Resources		RS 10/24/07	
Wild Horse & Burro Mgmt	AJM 10/29/07		

CUMULATIVE IMPACTS SUMMARY: These allotments and areas surrounding have historically been grazed by both sheep and cattle. Barbed wire fences and numerous maintained and unmaintained roads exist throughout the area, including on both of the allotments. These roads are used regularly by local residents and ranchers as well as by the primary recreation users in the area, hunters. Wildlife populations in the area are high, especially for deer and elk that compete with livestock for available forage throughout the area. The primary impacts from all of these activities are most immediately seen in the presence of roads, cultivation on private lands, and fences. The Proposed Action to continue grazing on these allotments and construct fences is compatible with other uses, both historic and present, and would not add any new or detrimental impacts to those that are already present.

STANDARDS

PLANT AND ANIMAL COMMUNITY (animal) STANDARD: The Proposed Action would not result in diminished animal production, diversity, or resilience. This standard would be met under the Proposed Action.

The No Action Alternative would maintain acceptable conditions, and meet this standard, on the House and Bord Gulch Allotments. The East Bord Gulch Allotment is currently not meeting this standard due to old, even-aged stands of sagebrush and low levels of grasses and forbs. This alternative would not meet this standard because this condition would be perpetuated under the No Action Alternative.

Name of specialist and date: Charlie Sharp 10/25/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (animal) STANDARD: The Proposed Action would not appreciably impact the stability or growth of sage-grouse or ferruginous hawk populations. Habitat for both species is currently acceptable on all three allotments. This standard would be met under both alternatives.

Name of specialist and date: Charlie Sharp 10/25/07

PLANT AND ANIMAL COMMUNITY (plant) STANDARD: The House and Bord Gulch Allotments are meeting this standard while the East Bord Gulch Allotment is not. The Proposed Action, through the use of improved livestock rotation, deferred spring use, improvement of water distribution, and vegetation treatments would maintain this standard on the House and Bord Gulch Allotments while moving the plant community towards meeting this standard on the

East Bord Gulch Allotment.

The No Action Alternative would maintain this standard on the House and Bord Gulch Allotments but would do nothing to improve conditions on the East Bord Gulch Allotment. This alternative would meet this standard on all allotments except East Bord Gulch.

Name of specialist and date: Hunter Seim 10/25/07

SPECIAL STATUS, THREATENED AND ENDANGERED SPECIES (plant)

STANDARD: There are no federally listed threatened or endangered or BLM sensitive plant species present on any of the three allotments. This standard does not apply.

Name of specialist and date: Hunter Seim 10/25/07

RIPARIAN SYSTEMS STANDARD: The riparian standard for healthy rangelands will be met with implementation of the Proposed Action with mitigation developed for the proposed spring development. The period of rest that is proposed for the East Bord Gulch Allotment will allow Lay Spring and a portion of Lay Creek and its floodplain to recover from past grazing. Improvements to riparian plant quality and vigor and potential expansion of the riparian systems could occur if compacted soils are presently reducing the potential of either Lay Spring or the Lay Creek floodplain area. Shortened grazing use in the riparian areas will allow ample time during the growing season for riparian plants to grow and expand into denser more vigorous stands. Stabilizing headcuts within the wetland draw in the Bord Gulch Allotment would also increase the quality and potentially the extent of the riparian system. The water table could be maintained or potentially elevated with headcut stabilization.

The No Action Alternative would maintain the riparian standard which is presently being met. The floodplain/wetland area along Lay Creek in the East Bord Gulch Allotment is presently functioning at risk with no apparent trend. However, this condition was not due to the present livestock operator and no direct grazing impacts were noted. The sedimentation that was observed and encroachment of upland species along the western edge may be the result of recent drought. Suspected soil compaction would be from past grazing management practices. Lighter grazing use that is anticipated to occur by the current operator will likely establish a positive trend in this riparian area.

Name of specialist and date: Ole Olsen 2/8/08

WATER QUALITY STANDARD: The water quality standard for healthy rangelands will be met with implementation of either the Proposed Action or No Action Alternatives. Runoff from snowmelt and summer storms will drain from the Bord Gulch, East Bord, and House Allotments into stream segments that are presently supporting classified uses. No stream segments are listed as impaired.

Name of specialist and date: Ole Olsen 2/4/08

UPLAND SOILS STANDARD: The upland soils within the Bord Gulch, East Bord Gulch and

House Allotments would continue to meet the upland soil standard for healthy rangelands under either alternative. The proposed grazing practices that would be implemented with selection of the Proposed Action would lead to more stable surface soils and improved upland soil health. Additional benefits to upland soil health would be anticipated from the proposed vegetation treatments and water developments that would promote better grazing distribution. The water developments require a small area of the upland soil resource to support livestock concentration that is not consistent with the characteristics of a healthy soil, but the water sources are necessary for livestock management on public rangelands. Improved livestock distribution that should result from implementing the proposed action would offset the minimal adverse impacts associated with each new water source developed.

Name of specialist and date: Ole Olsen 2/8/08

PERSONS/AGENCIES CONSULTED: Uintah and Ouray Tribal Council, Colorado Native American Commission, Colorado State Historic Preservation Office, Ray Owens.

SIGNATURE OF PREPARER:

DATE SIGNED:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

ATTACHMENTS:

- Attachments 1a-c: Allotment Maps
- Attachment 2: Standard and Common Terms and Conditions
- Attachments 3a-c: Proposed Range Improvement Locations
- Attachment 4a-c: BLM Construction Standards

Finding of No Significant Impact

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

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas or designated Areas of Critical Environmental Concern.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State or local natural resource related plans, policies or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.
8. Based on previous and ongoing cultural surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.
9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.
10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED:

ATTACHMENT 2
CO-100-2007-027 EA
TERMS AND CONDITIONS
Standard Terms and Conditions

- 1) Grazing permit or lease terms and conditions and the fees charged for grazing use are established in accordance with the provisions of the grazing regulations now or hereafter approved by the Secretary of the Interior.
- 2) They are subject to cancellation, in whole or in part, at any time because of:
 - a. Noncompliance by the permittee/lessee with rules and regulations;
 - b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based;
 - c. A transfer of grazing preference by the permittee/lessee to another party;
 - d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described;
 - e. Repeated willful unauthorized grazing use;
 - f. Loss of qualifications to hold a permit or lease.
- 3) They are subject to the terms and conditions of allotment management plans if such plans have been prepared. Allotment management plans **MUST** be incorporated in permits and leases when completed.
- 4) Those holding permits or leases **MUST** own or control and be responsible for the management of livestock authorized to graze.
- 5) The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze.
- 6) The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.
- 7) Grazing permits or leases are subject to the nondiscrimination clauses set forth in Executive Order 11246 of September 24, 1964, as amended. A copy of this order may be obtained from the authorized officer.
- 8) Livestock grazing use that is different from that authorized by a permit or lease **MUST** be applied for prior to the grazing period and **MUST** be filed with and approved by the authorized officer before grazing use can be made.
- 9) Billing notices are issued which specify fees due. Billing notices, when paid, become a part of the grazing permit or lease. Grazing use cannot be authorized during any period of delinquency in the payment of amounts due, including settlement for unauthorized use.

- 10) Grazing fee payments are due on the date specified on the billing notice and MUST be paid in full within 15 days of the due date, except as otherwise provided in the grazing permit or lease. If payment is not made within that time frame, a late fee (the greater of \$25 or 10 percent of the amount owed but not more than \$250) will be assessed.
- 11) No member of, or Delegate to, Congress or Resident Commissioner, after his/her election of appointment, or either before or after he/she has qualified, and during his/her continuance in office, and no officer, agent, or employee of the Department of Interior, other than members of Advisory committees appointed in accordance with the Federal Advisory Committee Act (5 U.S.C. App. 1) and Sections 309 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) shall be admitted to any share or part in a permit or lease, or derive any benefit to arise therefrom; and the provision of Section 3741 Revised Statute (41 U.S.C. 22), 18 U.S.C. Sections 431-433, and 43 CFR Part 7, enter into and form a part of a grazing permit or lease, so far as the same may be applicable.

Common Terms and Conditions

- 1) Grazing use will not be authorized in excess of the amount of specified use for each allotment. Numbers of livestock annually authorized in the allotment(s) may be more or less than the number listed on the permit/lease within the grazing use periods as long as the amount of specified grazing use is not exceeded.
- 2) Unless otherwise specified, the intensity of grazing use will insure that no more than 50% of the key grass species and 40% of the key browse species current years growth, by weight, is utilized at the end of the grazing season for winter allotments and the end of the growing season for allotments used during the growing season. Application of these terms needs to recognize recurring livestock management that includes opportunity for regrowth, opportunity for spring growth prior to grazing, or growing season deferment.
- 3) Failure to maintain range improvements to BLM standards in accordance with signed cooperative agreements and/or range improvement permits may result in the suspension of the annual grazing authorization, cancellation of the cooperative agreement or range improvement permit, and/or the eventual cancellation of this permit/lease.
- 4) Storing or feeding supplemental forage on public lands other than salt or minerals must have prior approval. Forage to be fed or stored on public lands must be certified noxious weed-free. Salt and/or other mineral supplements shall be placed at least one-quarter mile from water sources or in such a manner as to promote even livestock distribution in the allotment or pasture.

- 5) Pursuant to 43 CFR 10.4(g), the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

The operator is responsible for informing all persons who are associated with the allotment operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any allotment activities or grazing activities, the operator is to immediately stop activities in the immediate vicinity and immediately contact the authorized officer. Within five working days the authorized officer will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the identified area can be used for grazing activities again.

If paleontological materials (fossils) are uncovered during allotment activities, the operator is to immediately stop activities that might further disturb such materials and contact the authorized officer. The operator and the authorized officer will consult and determine the best options for avoiding or mitigating paleontological site damage.

- 6) No hazardous materials/hazardous or solid waste/trash shall be disposed of on public lands. If a release does occur, it shall immediately be reported to this office at (970) 826-5000.
- 7) The permittee/lessee shall provide reasonable administrative access across private and leased lands to the BLM and its agents for the orderly management and protection of public lands.
- 8) Application of a chemical or release of pathogens or insects on public lands must be approved by the authorized officer.
- 9) The terms and conditions of this permit may be modified if additional information indicates that revision is necessary to conform to 43 CFR 4180.