

**U.S. Department of the Interior
Bureau of Land Management
Glenwood Springs Field Office
50629 US Highway 6 & 24
Glenwood Springs, CO 81601**

ENVIRONMENTAL ASSESSMENT

NUMBER: CO140_2008_012EA

CASEFILE/PROJECT NUMBER: 0507631

PROJECT NAME: Grazing Permit Renewal for the Ryden, Hogback Common, Kissel, and Red Mountain Allotments

LEGAL DESCRIPTION: T. 4 S., R. 91 W. and T. 5 S., R. 91 W., Refer to attached map. Sixth Principal Meridian, Garfield County, Colorado.

APPLICANT: Red Glen Ranch

DESCRIPTION OF PROPOSED ACTION: The Proposed Action is to renew a term grazing permit for the above applicant. The number/kind of livestock, period of use, percent public land and Animal Unit Months (AUMs) will remain the same as the previous permit. The permit will be issued for a 10-year period. The proposed actions are in accordance with 43 CFR 4130.2. The tables below summarize the scheduled grazing use and grazing preference for the permit.

Scheduled Grazing Use:

Permittee	Allotment Name & No.	Livestock Kind & No.	Period of use	%PL	AUMs
Red Glen Ranch	Ryden 18024	75 Cattle	05/1 – 06/15	78	88
	Hogback Common 18026	63 Cattle	05/15 – 06/04	100	43
	Kissel 18003	70 Cattle	06/01 – 06/19	100	44
	Red Mountain 18028	82 Cattle	05/26 – 06/10	100	43

Grazing Preference (AUMs):

Permittee	Allotment Name & No.	Active AUMs	Suspended AUMs	Permitted AUMs
Red Glen Ranch	Ryden 18024	88	146	234
	Hogback Common 18026	45	0	45
	Kissel 18003	44	0	44
	Red Mountain 18028	44	16	60

Current Terms and Conditions that will be carried forward:

- 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 turn out.
- Grazing use on the Hogback Common allotment shall be in accordance with the AMP approved on 02/06/1987.
- Actual use statement for the Hogback Common allotment due no later than June 19.

ALTERNATIVES CONSIDERED BUT ELIMINATED:

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

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

NEED FOR PROPOSED 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 action 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; and amended in September 2002 – Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance.

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

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

Standards for Public Land Health:

In January 1997, Colorado BLM approved the Standards for Public Land Health. The five standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. The Glenwood Springs BLM is in the process of completing land health assessments on a landscape basis.

The fieldwork for a formal land health assessment on the Elk Creek Landscape which encompasses the four allotments in the proposed action was completed in 2007. Data gathered during the assessment indicate that the Kissel, Red Mountain, and Ryden allotments were meeting all the Standards. The Hogback Common allotment was not meeting Standard 3 for healthy plant communities. Functional and structural groups were dominated by shrubs and cheatgrass with fewer perennial grasses and forbs than expected. Although the team was not able to determine whether existing livestock grazing was a substantial contributing factor in failing to meet the standards, the timing, length and intensity of the sheep grazing use on the allotment does not appear to conform with the livestock grazing guidelines. The cattle grazing permit analyzed herein was not considered to be a factor affecting land health.

This environmental analysis must address whether the proposed action or alternatives being analyzed would result in impacts that would maintain, improve, or deteriorate land health conditions relative to these resources.

COMPLIANCE WITH SECTION 302 OF FLPMA RELATIVE TO THE COMB WASH DECISION

A review of applicable planning documents and a thoughtful consideration of new issues and new demands for the use of the public lands involved in this allotment have been made. This analysis concludes that the current land and resource uses are appropriate.

Reasons for the conclusion are: No new issues or new demands for the use of public lands involved in this grazing allotment have been identified since approval of the land use plan and amendments.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

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

A variety of laws, regulations, and policy directives mandate the evaluation of the effects of a proposed action and alternative(s) on certain critical environmental elements. Not all of the critical elements that require inclusion in this EA are present, or if they are present, may not be affected by the proposed action and alternative (Table 2). 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.

Table 2. 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

CRITICAL ELEMENTS

CULTURAL RESOURCES and 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 (GSFO #1008-7) was completed for the Hogback Common, Kissel, Ryden, and Red Mtn. allotments on February 29, 2008

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 GSFO office.

Allotment Number	Acres Inventoried at a Class III level	Acres NOT Inventoried at a Class III Level	Percent (%) Allotment Inventory data Class III level	Number of Cultural Resources known in allotment	High Potential of Historic Properties (yes/no)	Management Recommendations (Additional inventory required and historic properties to be visited)
Hogback Common	362	1956	16	3	no	No additional acres need to be inventoried. 54% of the allotment has 30%+ slopes.
Kissel	100	867	10	0	no	No additional acres need to be inventoried. 77% of the allotment has 30%+ slopes.
Ryden 18024	755	1519	33	11	no	No additional acres need to be inventoried. 48% of the allotment has 30%+ slopes
Red Mtn.	194	775	20	0	no	No additional acres need to be inventoried. 58% of the allotment has 30%+ slopes
Total	1411	5117	79	14		

Fourteen Class III cultural resource inventories (69, 145, 339, 591, 1005, 1022, 1092, 1003-26, 1407, 1199-6, 2295-1, 5495-2, 5497-19, and 15404-2) have been conducted within these allotments. Four historic properties ranging from prehistoric open camps to historic mines are considered eligible or potentially eligible for listing on the National Register of Historic Places. Unidentified historic era sites within this allotment could represent a time frame from the late 1800's through the 1950's; prehistoric sites could represent a time range from 5,000 to 10,000 years before present. Based on available data, there is a low potential for historic properties within these allotments.

Subsequent site field visits, inventory, and periodic monitoring may have to be done to identify adverse grazing impacts to the historic properties identified within the term of the permit and as funds are made available. If the BLM determines that grazing activities will 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 these allotments. On November 15, 2007 the Glenwood Springs Field Office mailed an informational letter and maps to the Ute Tribe (Northern Ute Tribe), Southern Ute Tribe, and the Ute Mountain Ute Tribes, identifying the proposed 2008 grazing permit renewals. No response has been received. In the past the Tribes have not had any concerns with grazing permit renewals. 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 Americans.

Environmental Consequences: 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.

If additional historic properties are located during the subsequent range developments field inventory, these properties will also be assessed for livestock grazing impacts within the term of the permit.

Mitigation: Maintenance of range improvements not previously inventoried or new improvements may require cultural resource inventories. These allotments may be found to contain 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.

Education/Discovery stipulation needs to be added to the lease renewal.

The permittee and all persons specifically associated with grazing operations must be informed that any objects or sites of cultural, paleontological, or scientific value such as historic or prehistoric resources, graves or grave markers, human remains, ruins, cabins, rock art, fossils, or artifacts shall not be damaged, destroyed, removed, moved, or disturbed. If in connection with allotment operations under this authorization any of the above resources are encountered, the proponent shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM authorized officer of the findings. The discovery must be protected until notified in writing to proceed by the authorized officer (36CFR800.110 & 112, 43CFR 0.4).

ENVIRONMENTAL JUSTICE

Affected Environment: Review of 2004 data from US Census Bureau indicates the median annual income of Garfield County averages \$50,119 and is neither an impoverished or wealthy county. Median annual income of Mesa County averages \$40,045 and is not an impoverished or wealthy county. U.S. Census Bureau data from 2006 shows the minority population of Garfield and Mesa County comprises less than 0.7 % of the total population of Colorado^a.

Garfield County	Mesa County
Median Household Income (2004)	Median Household Income (2004)
Estimate	Estimate
\$50,119	\$40,045

Environmental Consequences/Mitigation: The proposed action and alternatives are not expected to create a disproportionately high and adverse human health impact or environmental effect on minority or low-income populations within the area.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: A complete landscape wide survey for the present of noxious weeds and non-native species has not been conducted on the Ryden, Hogback Common, Kissel, and Red Mountain Allotments. However, weed infestations were recorded during land health assessments on these allotments in 2007. The Ryden assessment noted that cheatgrass is common and bur buttercup present throughout the site. The Hogback Common assessments noted cheatgrass was the primary plant in the sagebrush understory while Russian knapweed, common mullein, Canada thistle, houndstongue, and bur buttercup were common throughout the site. The Kissel assessment noted cheatgrass is scattered throughout the site. The Red Mountain assessment noted cheatgrass was only present in old burn areas and disturbed land. Although these assessments represent only a small fraction of the landscape within these allotments and given the widespread nature of noxious weed infestations throughout the resource area, it is assumed that some level of infestation does exist for the remainder of land within these allotments.

Environmental Consequences/Mitigation: Wind, water, vehicles, animals, and people transport weeds. Weeds generally germinate and become established in areas of surface disturbing activities such as road construction and maintenance, vehicular traffic, big game and livestock grazing. 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

^a Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, Census of Population and Housing, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits, Consolidated Federal Funds Report
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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.

MIGRATORY BIRDS

Affected Environment: The four grazing allotments are comprised of a variety of different habitat types. Vegetation includes sagebrush, pinyon/juniper and mixed mountain shrub. Given the mix and diversity of vegetation present, these allotments provide cover, forage and nesting habitat for a variety of migratory bird species. Priority species on the USFWS Birds of Conservation Concern List that may nest in the area include: sage sparrow, Virginia's warbler, pinyon jay and black-throated gray warbler. Golden eagles, red tailed hawks and other raptors likely nest and forage on the allotments.

Environmental Consequences/Mitigation: Although the proposed grazing schedules for the four allotments coincide with the breeding season, it is unlikely that livestock grazing in these allotments would reduce the extent or quality of habitat available for migratory bird breeding functions. Under the proposed action, the Ryden allotment would be grazed for about six weeks, the Hogback and Kissel allotments would be grazed for about three weeks and the Red Mountain allotment would be grazed for 16 days. All four allotments would receive rest after mid-June. These grazing schedules would allow for ample growing season rest and adequate plant recovery periods. All four allotments were visited during the field portion of a formal land health assessment in the summer of 2007. The Kissel, Red Mountain and Ryden allotments were all in good condition and were meeting all land health standards. Some cheatgrass and other minor issues were noted, but overall these allotments were providing suitable habitat for a variety of migratory bird species. The Hogback allotment was not meeting Standard 3 for healthy and productive plant and animal communities. Sagebrush stands in this allotment were old and decadent with a cheatgrass understory. Mountain shrub on steeper slopes in the allotment was in better condition. The cause of the poor conditions in the Hogback allotment was unknown, but may be due to historic overgrazing. Most of this allotment is north facing and cheatgrass should still be green when cattle are using the area. Several projects to improve sagebrush stands are planned in the allotment.

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

THREATENED, ENDANGERED, AND SENSITIVE SPECIES (includes an analysis on Standard 4)

Affected Environment: According to the latest species list from the U. S. Fish and Wildlife Service, the following Federally listed and candidate species may reside, have habitat, and/or be impacted by actions occurring in Garfield County: Canada lynx, Mexican spotted owl, western yellow-billed cuckoo, razorback sucker, Colorado pikeminnow, bonytail chub, humpback chub, Uncompahgre fritillary butterfly, Uinta Basin hookless cactus, Parachute beardtongue, Ute ladies'-tresses orchid and DeBeque phacelia.

None of the four allotments in this proposed grazing permit contain known occurrences or suitable habitat for any ESA listed, candidate or BLM sensitive plant species.

The Ryden, Kissel and Red Mountain allotments provide winter range for bald eagles, a recently delisted species. Bald eagles are known to winter along major waterways and their tributaries within the GSFO, using adjacent upland habitat as scavenging areas primarily for winter or vehicle killed mule deer and elk. Mapped winter habitat for this species is located along West, Main and East Elk Creeks and on uplands adjacent to river. No winter roosts are located on BLM lands within the allotments.

There is one elemental occurrence in the Ryden allotment for Townsend's big eared bat. These bats use caves and abandoned mines for roosts sites and forage in woodlands and forests near these roosts. Tree cavities may also be used for night roosts. Their diet primarily consists of moths and other insects (www.natureserve.org). Pinyon-juniper woodlands in the allotment may provide night roosts and foraging habitat for Townsend's big eared bats (www.natureserve.org).

Environmental Consequences/Mitigation:

Bald Eagle

The proposed action would have no conceivable impact to wintering bald eagles. Grazing in the allotments would not coincide with bald eagle use of winter habitat. Grazing upland habitats adjacent to the creeks would not impact bald eagle's ability to use these waterways and would not impact prey availability. In addition, livestock grazing would not impact bald eagle's ability to feed on carrion in upland habitats within the allotment.

Townsend's Big Eared Bat

The greatest threat to this species is the disturbance of maternal roosts sites and winter hibernating sites. Livestock grazing would not disturb any of these sites. Pinyon-juniper woodlands in the allotment likely provide foraging habitat for this bat. The allotment is in good condition and would continue to provide suitable foraging habitat under the proposed action. Continued grazing in the Ryden allotment would not impact Townsend's big eared bat.

Due to a lack of suitable habitat and no species occurrence records, the proposed action would have “No Effect” on any other federal or state listed wildlife or plant species or BLM sensitive wildlife or plant species.

Analysis on the Public Land Health Standard for Threatened, Endangered, and Sensitive Species: The field portion of a formal land health assessment was completed for the four allotments in this proposed action in 2007. Although some problems were noted, all of the allotments were found to be meeting this standard.

WATER QUALITY, SURFACE AND GROUND (includes an analysis on Standard 5)

Affected Environment: Proposed activities would occur northwest of the Town of New Castle within 114,649 acre Elk Creek 5th field watershed. More specifically, the Kissel and Ryden allotments are within the 10,936 acre Lower Main Elk Creek 6th field watershed; the Hogback Common allotment is within the 7,228 acre Mouth of Elk Creek (east portion) and the 5,974 acre Tributary to West Elk Creek (west portion) 6th field watersheds; and the Red Mountain allotment is within the 10,936 acre Lower Main Elk Creek (northwest portion), the 7,228 acre Mouth of Elk Creek (southwest portion), and the 25,380 acre East Elk Creek (east half) 6th field watersheds. Within the Kissel and Ryden allotments are numerous ephemeral tributaries to the perennial Main Elk Creek. The Hogback Common allotment contains numerous ephemeral tributaries to the perennial West Elk Creek while the Red Mountain allotment contains one ephemeral tributary to the perennial Elk Creek and one ephemeral tributary to the perennial East Elk Creek.

According to the *Stream Classifications and Water Quality Standards* (CDPHE, Water Quality Control Commission, Regulation No. 37) list, the ephemeral tributaries mentioned above are within the Lower Colorado River Basin segment 7 that includes the mainstem of Elk Creek and all tributaries, wetlands, lakes and reservoirs. This segment has been classified aquatic life cold 1, recreation 1a, water supply, and agriculture. Aquatic life cold 1 indicates that this water course is capable of sustaining a wide variety of cold water biota. Recreation class 1a refers to waters in which primary contact recreation is presumed to be present. In addition, this segment is suitable or intended to become suitable for potable water supplies and agricultural purposes that include irrigation and livestock use.

The ephemeral drainages mentioned above are not currently listed on the State of Colorado’s *303(d) List of Water Quality Limited Segments Requiring TMDLS* (CDPHE, Water Quality Control Commission, Regulation No. 93) or the *Monitoring and Evaluation List* (CDPHE, Water Quality Control Commission, Regulation No. 94) as waterbodies suspected to have water quality problems. In addition, no water quality data are currently available for these ephemeral drainages.

Environmental Consequences/Mitigation: Grazing activities would 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 a high potential that additional sediment associated with grazing practices could reach the numerous ephemeral drainages mentioned above and could in turn be transported to West Elk Creek, Main Elk Creek, East Elk Creek, and Elk Creek. With the implementation of grazing standards and guidelines, it is expected that the potential negative impacts described above would be short-term and localized. Consequently, no additional site specific mitigation is recommended at this time.

Analysis on the Public Land Health Standard for Water Quality: The proposed action would not likely prevent Standard 5 for Water Quality from being met.

NON-CRITICAL ELEMENTS

SOILS (includes an analysis on Standard 1)

Affected Environment: According to the *Soil Survey of Rifle Area, Colorado: Parts of Garfield and Mesa Counties* (USDA 1985), the Hogback Common Allotment contains 10 different soil map units that can be identified by the numerical code assigned by the soil survey (7, 9, 24, 31, 56, 58, 66, 67, 69, 70). The Red Mountain Allotment contains two soil map units (2, 67) while the Ryden (1, 2, 11, 39, 66, 67) and Kissel Allotments (7, 11, 22, 39, 66, 67) each contain six soil map units. These soil map units are scattered throughout the four allotments and many of them have been identified as having severe erosion hazards. In addition, large portions of the four allotments 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. Following is a brief description of the soil map units found within the four allotments.

- Almy Variant loam (1) – This deep, well drained soil is found on mountainsides at elevations ranging from 6,500 to 8,000 feet and on slopes of 25 to 65 percent. Parent material for this soil is sandstone and shale residuum. Surface runoff for the Almy Variant loam is medium and the erosion hazard is moderate. Primary uses for this soil include wildlife habitat and limited grazing.
- Arle-Ansari-Rock outcrop complex (2) – This complex is found on mountainsides and alluvial fans at elevations ranging from 5,500 to 7,500 feet and on slopes of 12 to 65 percent. The soils are derived from red-bed shale and sandstone while the Rock outcrop is primarily red sandstone. Approximately 45 percent of the complex is composed of the Arle soil, 35 percent the Ansari soil, and 20 percent Rock outcrop. The Arle soil is moderately deep, well drained, and has medium surface runoff and severe erosion hazard. The Ansari soil is shallow, well drained, and has rapid surface runoff and severe erosion hazard. This complex is used primarily for wildlife habitat and grazing.
- Ascalon-Pena complex (7) – This soil map unit is found on the sides of valleys and alluvial fans at elevations ranging from 5,000 to 6,500 feet and on slopes of 6 to 25 percent. The Ascalon soil makes up about 65 percent of the unit and is found on

lower angle slopes while the Pena soil makes up about 25 percent of the unit and is found on steeper slopes. The Ascalon soil is deep, well drained and has medium surface runoff with moderate erosion hazard. The Pena soil is deep, well drained and has slow surface runoff with moderate erosion hazard. Primary uses for this complex include wildlife habitat and limited grazing.

- Badland (9) – This soil map unit consists of steep, barren land that has been dissected by intermittent drainages. This unit occurs in soft shale, sandstone, and siltstone of the Green River, Wasatch, Mancos, and Mesa Verde Formations. This soil map is approximately 85 percent unvegetated, has very severe erosion hazard, and frequent active erosion.
- Begay sandy loam (11) – This deep, well drained soil is found on alluvial fans and sides of valleys at elevations ranging from 5,000 to 6,500 feet and on slopes of 6 to 12 percent. Parent material for this soil includes red-bed sandstone and shale. Surface runoff for Begay sandy loam is moderate and the erosion hazard is severe. Primary uses for this soil include grazing, irrigated pasture, and hay production.
- Dateman gravelly loam (22) – This moderately deep, well drained soil is found on mountainsides at elevations ranging from 7,000 to 9,500 feet and on slopes of 30 to 50 percent. This soil is derived primarily from sandstone and limestone rocks. Surface runoff for this soil is medium and the erosion hazard is classified as moderate. Primary uses for this soil include wildlife habitat and grazing.
- Dollard-Rock outcrop, shale, complex (24) – This complex consists of shale outcrops and shale derived soils that are found on hills and mountainsides at elevations ranging from 6,000 to 7,500 feet and on slopes of 25 to 65 percent. Approximately 60 percent of the complex is the Dollard soil and 20 percent is shale outcrop. The Dollard soil is moderately deep, well drained and has rapid surface runoff with severe erosion hazard. Surface runoff for the Rock outcrop is rapid and the erosion hazard is very severe. This complex is primarily used for limited grazing and wildlife habitat.
- Heldt clay loam (31) – This deep, well drained soil is found on alluvial fans and sides of valleys at elevations ranging from 5,000 to 6,000 feet and on slopes of 12 to 25 percent. Parent material for this soil is shale and sandstone. Erosion hazard for this soil is moderate and surface runoff is medium. Primary uses for this soil include grazing and wildlife habitat.
- Jerry loam (39) – This deep, well drained soil is found on mountainsides at elevations ranging from 7,000 to 9,500 feet and on slopes of 12 to 50 percent. Parent material for this soil is sandstone, shale, and basalt. Surface runoff for this soil is slow and the erosion hazard is moderate. Primary uses for this soil include wildlife habitat and grazing.
- Potts loam (56) – This deep, well drained soil is found on mesas, benches, and the sides of valleys at elevations ranging from 5,000 to 7,000 feet and on slopes of 6 to 12 percent. Parent material for this soil includes sandstone, shale, and basalt. Surface runoff for this soil is medium and the erosion hazard is severe. Primary uses for this soil include grazing, wildlife habitat, and dryland farming.

- Potts-Ildefonso complex (58) – This complex is found on mesas, alluvial fans, and the sides of valleys at elevations ranging from 5,000 to 6,500 feet and on slopes of 12 to 25 percent. Parent material for this soil complex consists of sandstone, shale, and basalt. This soil complex is deep, well drained, and has medium surface runoff and moderate erosion hazard. Uses for this soil complex include limited grazing and wildlife habitat.
- Torriorthents-Camborthids-Rock outcrop complex, steep (66) – This soil map unit consists of sandstone and shale bedrock and soils of variable depth occurring on slopes of 15 to 70 percent. About 45 percent of this complex is Torriorthents, 20 percent is Camborthids, and 15 percent is Rock outcrop. The Camborthids occur on the lower toe slopes on foothills and mountainsides while the Torriorthents are found on the foothills and mountainsides below the Rock outcrop. The Torriorthents are shallow to moderately deep, and clayey to loamy with gravel, cobbles, and stones. The Camborthids are shallow to deep and clayey to loamy. Rock outcrop primarily consists of Mesa Verde sandstones and Wasatch shales with occasional basaltic boulders and stones. This complex is characterized by moderate to severe erosion hazard. Primary uses for this complex include grazing, wildlife habitat, and recreation.
- Torriorthents-Rock outcrop complex, steep (67) – This complex consists of stony soils and exposed outcrops of Mesa Verde sandstone and Wasatch shale that occur on slopes of 15 to 70 percent. Approximately 60 percent of this complex is Torriorthents and 25 percent is Rock outcrop. The Torriorthents are clayey to loamy and contain gravel, cobbles, and stones; many of which are basaltic in origin. They are found on mountainsides below the Rock outcrop. Erosion hazard for this complex varies from moderate to severe. Primary uses for this complex include limited grazing, wildlife habitat, and recreation.
- Vale silt loam (69) – This deep, well drained, moderately sloping soil is found on mesas, benches, and alluvial fans at elevations ranging from 5,000 to 7,200 feet and on slopes of 6 to 12 percent. This soil is derived from calcareous eolian material. Surface runoff for this soil is medium and the erosion hazard is classified as moderate. Primary uses for this soil include irrigation for crops and hay with some areas being used for grazing.
- Vale silt loam (70) – This deep, well drained, strongly sloping soil is found on mesas, mesa sides, and alluvial fans at elevations ranging from 5,000 to 7,200 feet and on slopes of 12 to 25 percent. This soil is derived from calcareous eolian material. Surface runoff for this soil is medium and the erosion hazard is severe. Primary uses for this soil include wildlife habitat, recreation, and grazing.

Environmental Consequences/Mitigation: As mentioned above, the four allotments occur primarily on soils with severe erosion hazards and on slopes greater than 30% (17°). Grazing activities within the four allotments would result in soil compaction and displacement, especially in areas where livestock would be concentrated such as watering areas and stock trails. Soil compaction and displacement would increase the likelihood of erosional processes such as soil detachment and sediment transport 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. These processes could result in rilling, rutting, and sediment deposition. Due to the close proximity of the proposed activities to area drainages, there is a high potential that additional sediment associated with grazing practices could reach the numerous ephemeral drainages mentioned above and could in turn be transported to West Elk Creek, Main Elk Creek, East Elk Creek, and Elk Creek. With the implementation of grazing standards and guidelines, it is expected that the potential negative impacts described above would be short-term and localized. Consequently, no additional site specific mitigation is recommended at this time.

Analysis on Public Land Health Standard 1 for Upland Soils: The proposed action would occur within the Colorado River (Rifle to Glenwood North) Landscape Unit, which had land health assessment field work conducted in 2007. During that time, it appeared that area soils were achieving or moving towards achieving Standard 1 for Upland Soils. The determination document has not yet been completed. The proposed activities would not likely prevent Standard 1 for Upland Soils from being met.

VEGETATION (includes an analysis on Standard 3)

Affected Environment: Vegetation types on the four allotments in this permit renewal include pinyon-juniper, sagebrush, and mixed mountain shrubs. All four allotments were visited during the field portion of a formal land health assessment in the summer of 2007. Data gathered during the assessment indicated that the Kissel, Red Mountain and Ryden allotments were all in relatively good condition. Cheatgrass was present in minor to moderate amounts on each of the allotments and a few other issues were noted, but overall these allotments were meeting the standard for healthy plant communities.

The Hogback Common allotment was not meeting Standard 3 for healthy plant and animal communities. Sagebrush stands in this allotment were old and decadent with an understory dominated by cheatgrass. Some other noxious weeds and invasive species were also noted in the allotment. Mountain shrub communities on the steeper slopes in the allotment were in better condition.

Environmental Consequences/Mitigation: Under the proposed action, the Ryden allotment would be grazed by cattle for about six weeks, the Hogback and Kissel allotments would be grazed for about three weeks and the Red Mountain allotment would be grazed for 16 days. All four allotments would receive rest after mid-June. These grazing schedules should provide for ample growing season rest and adequate plant recovery periods.

Although the team was not able to determine whether existing livestock grazing was a substantial contributing factor in failing to meet the standards on the Hogback Common allotment, the timing, length and intensity of the sheep grazing use on the allotment does not appear to conform with the livestock grazing guidelines. The cattle grazing permit analyzed herein was not considered to be a factor affecting land health. The timing of

cattle use on this allotment should coincide with the green-up of cheatgrass which will likely constitute the majority of the forage grazed at that time.

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The field portion of a formal land health assessment was completed for the allotments in 2007. Although some problems were noted, the Ryden, Kissel and Red Mountain allotments were found to be meeting this standard. The Hogback Common allotment was not meeting Standard 3 for healthy and productive plant and animal communities. The current (and proposed) cattle grazing permit was not considered to be a factor affecting land health.

WILDLIFE AQUATIC (includes an analysis on Standard 3)

Affected Environment:

The Hogback Common allotment contains no perennial waters. The closest perennial waters are Grass Valley Reservoir within .2 miles to the west and West Elk Creek within .2 miles to the north. Grass Valley Reservoir contains a variety of fishes including northern pike, yellow perch, rainbow and brown trout, and bass. The Kissel allotment contains no perennial waters but borders Main Elk Creek to the east. Main Elk Creek contains rainbow, brown, and cutthroat trout. The Red Mountain allotment contains no perennial waters but is bounded by Main Elk Creek to the west, Elk Creek to the South, and East Elk Creek to the east. Main Elk, Elk, and East Elk Creeks contain rainbow, brown, and cutthroat trout. The Ryden allotment contains .15 miles of perennial Main Elk Creek and is within .25 miles of this creek along the eastern boundary. Main Elk Creek contains rainbow, brown, and cutthroat trout. In addition, all of these perennial waters contain an abundance of aquatic insects.

Environmental Consequences/Mitigation:

The Hogback Common allotment is grazed by both sheep and cows. Current sheep grazing is causing problems with regard to upland vegetation and soils conditions. Continued grazing activity within all of these allotments would result in some site-specific soil compaction and displacement, especially in areas where livestock concentrate such as waters, salt block sites, and along stock trails. Soil compaction and displacement would increase the likelihood of erosional processes such as soil detachment and sediment transport 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 livestock grazing to area drainages, there is a potential that sediment associated with grazing practices could be transported to any of the identified perennial waters. Sediment can impact trout species by silting in spawning substrates and limited pool habitats. This can smother eggs and reduce productivity, and can reduce summer and winter thermal refuge (pool) habitats needed for survival. Sediment can impede aquatic insect productivity which can reduce food sources for resident fishes. Given the timing of grazing and the adequate growing season rest provided for rest and recovery of upland vegetation, and the minimal amount of anticipated erosion from

grazing, it is unlikely that sediment concerns caused by grazing would present a problem. In addition, the majority of grazing on these allotments coincides with spring peak flow periods which should be sufficient to move sediment.

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): A formal Land Health Assessment was completed for the area in 2007. A final report has not been completed, but initial data suggests that the majority of the watershed is meeting Standard 3 for aquatic wildlife. The Hogback Common allotment was not meeting Standard 3 for healthy and productive plant and animal communities. Given the lack of perennial water on the allotment and current cattle management associated with this permit, the proposed action should have little bearing on the watershed's ability to continue to meet this standard specifically for aquatic wildlife.

WILDLIFE TERRESTRIAL (includes an analysis on Standard 3)

Affected Environment: The four grazing allotments are comprised of a variety of different habitat types. Vegetation includes sagebrush, pinyon/juniper and mixed mountain shrub. These communities typically provide habitat for big game species as well as small mammals, reptiles and birds. Portions of the allotments are mapped as important big game winter habitat (CDOW 2006).

Environmental Consequences/Mitigation: It is unlikely that the proposed action would have any long-term negative impacts to terrestrial wildlife habitat. Under the proposed action, the Ryden allotment would be grazed for about six weeks, the Hogback and Kissel allotments would be grazed for about three weeks and the Red Mountain allotment would be grazed for 16 days. All four allotments would receive rest after mid-June. These grazing schedules would allow for ample growing season rest and adequate plant recovery periods. All four allotments were visited during the field portion of a formal land health assessment in the summer of 2007. The Kissel, Red Mountain and Ryden allotments were all in good condition and were meeting all land health standards. Some cheatgrass and other minor issues were noted, but overall these allotments were providing suitable habitat for a variety of wildlife species. The Hogback allotment was not meeting Standard 3 for healthy and productive plant and animal communities. Sagebrush stands in this allotment were old and decadent with a cheatgrass understory. Mountain shrub on steeper slopes in the allotment was in better condition. The cause of the poor conditions in the Hogback allotment was unknown, but may be due to historic overgrazing. Most of this allotment is north facing and cheatgrass should still be green when cattle are using the area. Several projects to improve sagebrush stands are planned in the allotment.

Analysis on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): The field portion of a formal land health assessment was completed for the allotments in 2007. Although some problems were noted, the Ryden, Kissel and Red Mountain allotments were found to be meeting this standard. The Hogback allotment was not meeting Standard 3 for healthy and productive plant and

animal communities. Several projects are planned within this allotment to improve sagebrush conditions.

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
Travel/Access		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
Transportation		X	
Visual Resources	X		

CUMULATIVE IMPACTS SUMMARY:

Cumulative impacts related to livestock grazing were analyzed in the land use plan. No cumulative impacts specific to the proposed action have been identified.

PERSONS/AGENCIES CONSULTED:

Notices of public scoping were issued through the Colorado BLM’s Internet web page providing the public an opportunity to obtain information or offer concerns on grazing permits or allotments scheduled for renewal. There have been no responses received specific to the permit renewal or allotment addressed in this NEPA document. The Glenwood Springs Field Office Internet NEPA Register also lists grazing permit renewal NEPA documents that have been initiated. They are generally posted approximately one month prior to the estimated completion date.

Charles Ryden
 Southern Ute Tribe
 Ute Tribe of the Uintah and Ouray Bands
 Ute Mountain Ute Tribe

INTERDISCIPLINARY REVIEW:

<i>Name</i>	<i>Title</i>	<i>Responsibility</i>
Isaac Pittman	Rangeland Management Specialist	Rangeland Management, NEPA Lead
Michael Kinser	Rangeland Management Specialist	Wetlands and Riparian Zones
Kay Hopkins	Outdoor Recreation Planner	ACEC, WSR, Wilderness, VRM
Cheryl Harrison	Archaeologist	Cultural Resources and Native American Concerns
Desa Ausmus	Wildlife Biologist	Migratory Birds, T&E, Terrestrial Wildlife
Carla DeYoung	Ecologist	Vegetation, T/E/S Plants, Land Health Stds
Jeff O'Connell	Hydrologist/Geologist	Soil, Air, Water, Geology
Dereck Wilson	Rangeland Management Specialist	Invasive, Non-Native Species

SIGNATURE OF PREPARER:



DATE SIGNED:

3/12/2008

APPENDICES: None

ATTACHMENTS: Allotment Map

