

**U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
73544 Hwy 64  
Meeker, CO 81641**

## **ENVIRONMENTAL ASSESSMENT**

**NUMBER:** CO-110-2006-038-EA

**CASEFILE/PROJECT NUMBER** (optional): Authorization # 0501877

**PROJECT NAME:** Grazing Lease Renewal for Davidson Yellow Jacket Ranch Ltd. for the Thornburgh Allotment (Section 15).

**LEGAL DESCRIPTION:** T3N, R92W Sec 20, 22, 27, 28, 29, 32, 33 and 34  
T2N, R92W Sec 5, 8 and 17

**APPLICANT:** Davidson, Yellow jacket Ranch Ltd., Authorization #0501877

**ISSUES AND CONCERNS** (optional): The land owner has expressed an interest operating the ranch primarily as a cattle operation but having the flexibility to graze the allotment with sheep once every fourth or fifth year. This situation would be addressed under a separate NEPA document (DNA). Noxious weed infestations (Canada thistle, houndstongue, yellow toadflax) occur on private and BLM lands. The Thornburgh Historical Site is located on private lands on the extreme eastern edge of the allotment.

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

***Background/Introduction:*** BLM Grazing Lease #0501877 authorizes livestock grazing on the Thornburgh allotment #06802, which was historically a sheep allotment. Davidson Yellow Jacket Ranch, Ltd. was purchased by the current owners in 1987. In the fall of 2004, the ranch sold their sheep and bought cattle to run a cow/calf operation and a temporary lease was issued allowing a conversion from sheep to cattle grazing. The rationale behind this decision was to allow a prompt change in class of livestock for grazing in the 2005 season, which has carried over to the 2006 season.

The allotment is broken into three pastures containing a total of approximately 489 acres of BLM and 2,148 acres of privately owned lands. The table below is an acreage breakdown by land status by pasture of all land within the Thornburgh allotment. An adjacent pasture containing 2,053 acres of private hay meadows is used in conjunction with the three pastures below. There are a seven acre and a 20 acre parcel of BLM lands in this pasture. This pasture is used primarily for hay production. Grazing use tends to be early, which allows ample opportunity throughout the growing season for regrowth of native vegetation after livestock are moved into the

allotment. Due to the isolated nature and topography of the two small BLM parcels limited grazing use occurs on them and they will not be analyzed further in this document.

<b>Thornburgh Allotment (#06802) of Davidson Yellow Jacket Ranch Ltd.</b>			
<b>Pasture</b>	<b>BLM Acres</b>	<b>Private Acres</b>	<b>Total Acres</b>
Milk Creek	228	1207	1435
Boxelder	215	834	1049
South Boxelder	46	107	153
<b>Totals:</b>	<b>489</b>	<b>2148</b>	<b>2637</b>

A description of livestock use in the Thornburgh Allotment is as follows: From mid June through mid September most cattle are on other allotments or private pastures with 80 cattle remaining in the Thornburgh allotment, rotating through the Milk Creek (June 16 through July 30) and Boxelder (August 1 through October 1) pastures. From mid August through mid September an average of 25 cows at any given time are allowed to drift from other private land leases outside of the allotment through the South Boxelder pasture before going into private pasture for the winter.

In addition to the Thornburgh allotment the Davidson Yellow Jacket Ranch has other private land leases, private acreage, and BLM leases administered out of both the White River Field Office in Meeker and the Little Snake Field Office in Craig, Colorado.

This allotment is a Section 15 grazing lease and has been categorized as a “C” (Custodial) Allotment, on which no significant problems, issues, and/or resource conflicts have been identified other than the presence of noxious weeds, which are being treated by the lessee. Current management and land health of the allotment are satisfactory.

Annual precipitation varies from approximately 16 to 24 inches. Snowfall, which accounts for well over half of the annual precipitation, occurs from October to May and accumulates on the ground from November through April. This landscape has high potential for growth and regrowth of all herbaceous species along with retained moisture capabilities.

The majority of forage produced in the Thornburgh Allotment is on private land (86%), versus BLM administered lands (averaging 18%), as indicated by the % Public Land (%PL) in the proposed action. The majority of BLM lands in the allotment, especially in the South Boxelder pasture tend to occur on steep brushy slopes, with minimal livestock use in these areas

**Proposed Action:** The class of livestock would be permanently changed from sheep to cattle and the grazing lease (0501877) would be renewed for a period of 10 years. The proposed action (grazing lease) would consist of a livestock operation as outlined below and applied for by Davidson Yellow Jacket Ranch, Ltd.

<b>Proposed Grazing Schedule for Davidson Yellow Jacket Ranch (Thornburgh Allotment)</b>								
<b>Allotment (Thornburgh)</b>		<b>Livestock</b>		<b>Date</b>		<b>Total AUMs</b>	<b>% PL</b>	<b>BLM AUMs (Permitted Use)</b>
<b>Pasture Name</b>	<b>No.</b>	<b>Number</b>	<b>Kind</b>	<b>On</b>	<b>Off</b>			
Milk Creek	06802	80	Cattle	06/16	07/30	118	14%	<b>17</b>

Proposed Grazing Schedule for Davidson Yellow Jacket Ranch (Thornburgh Allotment)								
Allotment (Thornburgh)		Livestock		Date		Total AUMs	% PL	BLM AUMs (Permitted Use)
Pasture Name	No.	Number	Kind	On	Off			
Boxelder	06802	80	Cattle	08/01	10/01	163	20%	33
South Boxelder	06802	25	Cattle	08/15	09/14	25	20%	5
<b>Totals--</b>						306		55

**Grazing Lease Terms and Conditions:** The following terms and conditions as required by 43 CFR 4130.3 will be included in the grazing lease issued under this alternative:

1. Grazing use will occur as per the Grazing Schedule outlined in EA #CO-110-06-039EA.
2. This grazing lease is subject to cancellation, in whole or in part, at any time because of:
  - a. Noncompliance by the lessee with rules and regulations now or hereafter approved by the Secretary of the Interior.
  - b. Loss of control by the lessee of all or a part of the property upon which it is based.
  - c. A transfer of grazing preference by the lessee to another party.
  - d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described herein.
  - e. Repeated willful unauthorized grazing use
3. A grazing utilization limit averaging 50 percent of annual growth in key forage areas will be applied to public lands in the Thornburgh Allotment.
4. In order to improve livestock distribution on the public lands, no salt blocks and/or mineral supplements will be placed within a 1/4 mile of any riparian area, wet meadow, or watering facility (either permanent or temporary) unless stipulated through a written agreement or decision in accordance with 43 CFR 4130.3-2(c).
5. In accordance with 43 CFR 4130.8-1(F): Failure to pay grazing bills within 15 days of the due date specified in the bill shall result in a late fee assessment. Payment made later than 15 days after the due date, shall include the appropriate late fee assessment. Failure to make payment within 30 days may be a violation of 43 CFR Sec. 4140.1(b) (1) and shall result in action by the authorized officer under 43 CFR Secs. 4150.1 and 4160.1-2 (Trespass).
6. No grazing use can be authorized under this grazing lease during any period of delinquency in the payment of amounts due in settlement for unauthorized grazing use.
7. The lessee must provide reasonable administrative access across private and leased lands to the BLM for the orderly management and protection of the public lands, as outlined 43 CFR 4130.3-2(h).
8. It is unlawful for the lessee, agents or employees to knowingly disturb or collect cultural, historical or paleontological materials on public lands. If cultural, historical or

paleontological materials are found, including human remains, funerary items or objects of cultural patrimony, the lessee is to stop activities that might disturb such materials, and notify the authorized officer immediately.

9. This grazing lease is subject to the provisions of executive Order NO. 11246 of September 24, 1965, as amended, which sets forth nondiscrimination clauses. A copy of this order may be obtained from the authorized officer.
10. The lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.

The percent public land (% PL), which is the percentage of BLM AUMs in relation to total AUMs produced (BLM and private AUMs) was recalculated for the grazing lease from 59% for the entire allotment to actual percents for each individual pasture based on ecological site production and topography as related to cattle use. In the Thornburgh allotment cattle tend to make most grazing use in the valley bottoms and gentler slopes which are entirely privately owned. Public land in this allotment primarily consists of steeper, brushy terrain with limited availability for cattle use. The proposed livestock grazing schedule reflects the tendencies of cattle.

The grazing system outlined in the proposed action should provide plant communities in the Thornburgh Allotment adequate opportunity for regrowth and seed production following grazing. The critical growing season for this area is generally from May 1 through June 30, with some yearly variations. Under the proposed grazing schedule each plant will have a high probability for growth and/or regrowth to reach maturity for an increased level of plant vigor and maintenance of the existing vegetative communities.

**Limits of Flexibility:** The lessee will be allowed flexibility from the submitted plan of operation during the grazing year that does not require prior approval from BLM. This flexibility will be limited to on or off dates and number of animals to adjust to changing climatic conditions, forage variability, and operational needs. Flexibility of the on or off dates will be limited to 10 days either way provided total days of use do not exceed 10 days from the schedule. The lessee will also be able to adjust the number of animals by (+/-) 10% provided the total AUMs of use do not exceed the AUMs scheduled. Flexibilities that require approval by the BLM are adjustments made beyond the above criteria. BLM approved flexibilities and/or changes to this plan may be required due to such factors as forage influences from grazing, drought, fire, and/or water availability.

**Rangeland Improvements Necessary to Implement the Grazing System:** A seep in T3N, R92W Sec 32 SENW (Milk Creek pasture) was located while conducting land health assessments. By the summer of 2007 the lessee would like to construct a 3-rail pole fence around the seep to protect it from excessive trampling by livestock. Additionally at some point in the future he would like to develop the seep with a spring box and install a tire tank some distance away from the seep to provide a reliable water source for livestock and wildlife in this area. No additional rangeland improvements (RI) are being proposed. Future evaluations of allotment conditions may identify improvements that would aid in achieving objectives. In which case, if impacts of future proposed improvements are sufficiently addressed in this EA,

Documentation of NEPA Adequacy (DNA) will be prepared. If potential impacts of future proposed improvements are not sufficiently addressed, a separate Environmental Assessment (EA) would be compiled to approve any such new RI on a site specific basis.

**Monitoring and Evaluation:** There are no long term trend sites currently established on the Thornburgh allotment. Landscape health assessments were conducted in the summer of 2006 on the primary ecological sites occurring on public lands. Given the limited extent of public lands on this allotment and the limited grazing use occurring on these lands due to steepness of the terrain, this level of monitoring has been determined to be appropriate and adequate to monitor overall condition and health of the landscape. Future landscape health assessments will be repeated approximately every five years in these primary ecological sites in order to monitor conditions as related to livestock grazing.

**Continuation of the Permitted Use Alternative:** Under this alternative the previous management practices of a sheep operation as outlined on the previous grazing lease would be retained as illustrated in the table below. Sheep would likely rotate through the pastures similarly to the proposed cattle grazing schedule. Based on the recalculated %PL the AUMs on a renewed sheep grazing lease would be different. This would constitute renewal of the grazing lease for the Davidson Yellow Jacket Ranch.

Allotment (Thornburgh)		Livestock		Date		Total AUMs	% PL	BLM AUMs
Name	No.	Number	Kind	On	Off			
Thornburgh	06802	400	S	05/01	06/15	121	59%	71
Thornburgh	06802	459	S	09/15	10/14	91	59%	53
<b>Totals:</b>						<b>212</b>		<b>124</b>

**Grazing Lease Terms and Conditions:**

Under either the No Action or the Proposed Action Alternatives, the following terms and conditions as required by 43 CFR 4130.3 would be included in the grazing lease:

11. Thirty (30) days prior to turnout, the lessee will submit a grazing application for the grazing year to the BLM for approval. The application will include the anticipated turnout dates, numbers of animals, and the sequence that the pastures will be used.
12. The lessee must provide reasonable administrative access across private and leased lands to the BLM for the orderly management and protection of the public lands, as specified in 43 CFR 4130.3-2(h).
13. Grazing use will occur as per the EA# CO-110-06-038EA, and the new grazing lease upon approval and signature.
14. It is unlawful for the lessee, agents or employees to knowingly disturb or collect cultural, historical or paleontological materials on public lands. If cultural, historical or paleontological materials are found, including human remains, funerary items or objects of cultural patrimony, the lessee is to stop activities that might disturb such materials, and notify the authorized officer immediately.

15. No grazing use can be authorized under this grazing lease during any period of delinquency in the payment of amounts due in settlement for unauthorized grazing use.
16. Grazing use authorized under this grazing lease may be suspended, in whole or in part, for violation by the lessee of any of the provisions of the rules or regulations now or hereafter approved by the Secretary of the Interior.
17. This grazing lease is subject to cancellation, in whole or in part, at any time because of:
  - a. Noncompliance by the lessee with rules and regulations now or hereafter approved by the Secretary of the Interior.
  - b. Loss of control by the lessee of all or a part of the property upon which it is based.
  - c. A transfer of grazing preference by the lessee to another party.
  - d. A decrease in the lands administered by the Bureau of Land Management within the allotment described herein.
  - e. Repeated willful unauthorized grazing use.
18. This grazing lease is subject to the provisions of executive Order NO. 11246 of September 24, 1965, as amended, which sets forth nondiscrimination clauses. A copy of this order may be obtained from the authorized officer.
19. The lessee must own or control and be responsible for the management of the livestock authorized to graze under this grazing lease.
20. The authorized officer may require counting and/or additional/special marking or tagging of the livestock authorized to graze under this grazing lease.
21. The lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.
22. In order to improve livestock distribution on the public lands, no salt blocks and/or mineral supplements will be placed within a 1/4 mile of any riparian area, wet meadow, or watering facility (either permanent or temporary) unless stipulated through a written agreement or decision in accordance with 43 CFR 4130.3-2(c).
23. In accordance with 43 CFR 4130.8-1(F): Failure to pay grazing bills within 15 days of the due date specified in the bill shall result in a late fee assessment. Payment made later than 15 days after the due date, shall include the appropriate late fee assessment. Failure to make payment within 30 days may be a violation of 43 CFR Sec. 4140.1(b) (1) and shall result in action by the authorized officer under 43 CFR Secs. 4150.1 and 4160.1-2 (Trespass).

**No Grazing Alternative:** This alternative consists of not issuing a grazing lease for livestock use. There would be no livestock grazing on public lands within the Thornburgh allotment on which it is currently permitted. This alternative would not be in compliance with the RMP decision to provide for livestock grazing as one of the acceptable multiple uses.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:** none

**NEED FOR THE ACTION:** The current temporary Grazing Lease (0501877) for the Thornburgh allotment (06802), which authorizes livestock grazing on the allotment, will expire February 28, 2007. Additionally, the applicant has applied for a permanent change in the class of livestock from sheep to cattle. This lease is subject to renewal at the discretion of the Secretary of the Interior for a period of up to ten years. The BLM has the authority to renew the livestock grazing lease consistent with the provisions of the *Taylor Grazing Act*, *Public Rangelands Improvement Act*, *Federal Land Policy and Management Act* and the *White River Resource Area's Resource Management Plan/Environmental Impact Statement* (EIS). This Plan/EIS has been amended by the Standards for Public Land Health in the State of Colorado. The Public Land Health Standards will be addressed in this Environmental Assessment (EA).

This environmental assessment will analyze the impacts of livestock grazing on public land managed by the BLM. The analysis will recommend terms and conditions to the lease which improve or maintain public land health standards. The public will benefit from lands which are maintained in a healthy condition and provide sustainable resources for a variety of uses. The terms and conditions, as outlined on the grazing lease, will also meet the public's need to prevent injury to public grazing lands through managed livestock use, thus averting soil deterioration and negative vegetative transformations. In doing so, the grazing lease will provide for orderly use to stabilize the livestock industry dependent upon public rangelands, and for other purposes as stated under the *Taylor Grazing Act*.

In order to graze livestock on public lands administered by the BLM, the livestock producer (permittee/lessee) must hold a valid grazing permit or lease. When permitted livestock are on public lands, the permittee/lessee can conserve forage on other lands to meet future livestock requirements. Livestock producers are dependent on this permitted grazing use on public lands to ensure the economic viability of their ranching operation.

**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: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: 2-10, 2-22 through 2-26

Decision Language: The Proposed Action implements the White River ROD/RMP Livestock Grazing Management objective on page 2-22 to 2-26:

“To maintain or enhance a healthy rangeland vegetation composition and species diversity, capable of supplying forage at a sustained yield to meet the demand for

livestock grazing. Provide for adequate forage plant growth and/or re-growth opportunity necessary to: 1) replenish the plants food reserves; and 2) produce sufficient seed to meet the reproduction needs necessary to maintain an ecological presence in the plant community.”

“Sustain a landscape composed of plant community mosaics that represent successional stages and distribution patterns that are consistent with natural and regeneration regimes, and compatible with the goals identified in Standard Three of the Standards for Public Land Health (pages 2-10), also as stated, the goal of the livestock management program is to improve the rangeland forage resource by managing toward a desired plant community (potential natural plant community).”

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

**GRAZING DECISION:** A review of applicable planning documents and a thoughtful consideration of the new issues and new demands for the use of the public lands involved with this allotment have been made. This analysis concludes that the current multiple use allocation of resources is appropriate.

**AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:**

**STANDARDS FOR PUBLIC LAND HEALTH:** In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These 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. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. In the tables below the “Current Situation” columns refer to the Continuation of the Permitted Use Alternative: where the lease would be renewed as a sheep allotment, the “With Proposed Action” columns refer to converting the lease to a cattle allotment and the “With No Grazing” columns refer to the No Grazing Alternative. Findings for each standard are located in specific elements listed below:

STANDARDS FOR PUBLIC LAND HEALTH							
Standard	Current Situation			With Proposed Action		With No Grazing	
	Achieving or Moving Towards Achieving	Not Achieving	Causative Factors	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving
<b>#1-Upland Soils</b>							
Milk Creek	225 acres	3	historic sheep bedding grounds	228 acres	none	228 acres	none
Boxelder	215 acres	none	n/a	215 acres	none	215 acres	none

STANDARDS FOR PUBLIC LAND HEALTH							
Standard	Current Situation			With Proposed Action		With No Grazing	
	Achieving or Moving Towards Achieving	Not Achieving	Causative Factors	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving
S. Boxelder	48 acres	none	n/a	48 acres	none	48 acres	none
	.5 % of Total			0 % of Total		0 % of Total	
<b>#2-Riparian Systems</b>							
Milk Creek	.05 acre	.05 acre	trampling spring source by elk and/or livestock	.1 acre	none	.05 acre	.05 acre
Boxelder	n/a	n/a	n/a	n/a	n/a	n/a	n/a
S. Boxelder	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50% of Total			100% of Total		50% of Total	
<b>#3-Plant Communities</b>							
Milk Creek	225 acres	3	historic sheep bedding grounds	228 acres	none	228 acres	none
Boxelder	215 acres	none	n/a	215 acres	none	215 acres	none
S. Boxelder	48 acres	none	n/a	48 acres	none	48 acres	none
	.5 % of Total			0 % of Total		0 % of Total	
<b>#4-Animal Communities</b>							
Milk Creek	225 acres	3	historic sheep bedding grounds	228 acres	none	228 acres	none
Boxelder	215 acres	none	n/a	215 acres	none	215 acres	none
S. Boxelder	48 acres	none	n/a	48 acres	none	48 acres	none
	.5 % of Total			0 % of Total		0 % of Total	
<b>#4-Special Status, T&amp;E Species</b>							
Milk Creek	225 acres	3	historic sheep bedding grounds	228 acres	none	228 acres	none
Boxelder	215 acres	none	n/a	215 acres	none	215 acres	none
S. Boxelder	48 acres	none	n/a	48 acres	none	48 acres	none
	.5 % of Total			0 % of Total		0 % of Total	
<b>#5-Water Quality</b>							
Milk Creek	.05 acre	.05 acre	trampling spring source by elk and/or livestock	.1 acre	none	.05 acre	.05 acre
Boxelder	n/a	n/a	n/a	n/a	n/a	n/a	n/a

STANDARDS FOR PUBLIC LAND HEALTH							
	Current Situation			With Proposed Action		With No Grazing	
Standard	Achieving or Moving Towards Achieving	Not Achieving	Causative Factors	Achieving or Moving Towards Achieving	Not Achieving	Achieving or Moving Towards Achieving	Not Achieving
S. Boxelder	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50 % of Total			100 % of Total		100 % of Total	

## **CRITICAL ELEMENTS**

### **AIR QUALITY**

*Affected Environment:* The entire White River Resource area has been classified as either attainment or unclassified for all pollutants, and most of the area has been designated prevention of significant deterioration (PSD) class II. The proposed action is not located within a ten mile radius of any special designation air sheds or non-attainment areas. The air quality criteria pollutant likely to be most affected by the proposed actions is the level of inhalable particulate matter, specifically particles ten microns or less in diameter (PM<sub>10</sub>) associated with fugitive dust. Unfortunately, no air quality monitoring data is available for the survey area. However, it is apparent that current air quality near the proposed location is good because only one location on the western slope (Grand Junction, CO) is monitoring for criteria pollutants other than PM<sub>10</sub>. Furthermore, the Colorado Air Pollution Control Division (APCD) estimates the maximum PM<sub>10</sub> levels (24-hour average) in rural portions of western Colorado to be near 50 micrograms per cubic meter (µg/m<sup>3</sup>). This estimate is well below the National Ambient Air Quality Standard (NAAQS) for PM<sub>10</sub> (24-hour average) of 150 µg/m<sup>3</sup> (CDPHE 2005).

*Environmental Consequences of the Proposed Action:* Under the proposed action, the class of livestock would be permanently changed from sheep to cattle. Implementation of the proposed grazing plan combined with recent drought conditions may result in decreased ground cover. Reductions in effective ground cover would leave soils exposed to eolian processes and potentially elevate fugitive dust production. However, local climatic conditions will have the strongest hand in determining vegetative health and effective ground cover within the allotment. The proposed grazing management plan should have minimal impacts to air quality.

*Environmental Consequences of the Continuation of the Permitted Use Alternative::* Under the Continuation of the Permitted Use Alternative:, previous management practices of a sheep operation would be retained. However, with the Continuation of the Permitted Use Alternative: active AUMs on public lands would increase from 80 (cattle) to 124 (sheep). This increase in active AUMs would likely decrease potential litter accumulation and vegetal cover. As a result, soils may become more vulnerable to eolian processes increasing potential fugitive dust production and possibly deteriorating local air quality on a temporary basis.

*Environmental Consequences of the No Grazing Alternative:* None

*Mitigation:* Continued monitoring and evaluation of rangeland health conditions will be necessary to modify the carrying capacity of the allotment due to drought conditions.

## **CULTURAL RESOURCES**

The 1998 BLM/Colorado SHPO Protocol agreement requires the BLM to identify all historic properties, prehistoric sites and sacred sites on all lands within Colorado that are within the APE of a BLM undertaking. A cultural resource assessment was completed for this allotment following the procedures outlined in IM-WO-99-039, IM-CO-99-007 and IM-CO-99-019. Copies of the cultural resource assessment are available in the White River Field Office archaeology files and the summary report is attached to the range allotment lease file. Class III cultural resource inventories have been started within the allotment pastures. These initial inventories, along with a pre-field search for recorded sites, indicate that there are no known sites and that there is little likelihood of finding sites in the future.

*Environmental Consequences of the Proposed Action:* Direct impacts that may occur where livestock concentrate include trampling, chiseling and churning of site soils, cultural features and artifacts, artifact breakage and impacts from standing, leaning and rubbing against above ground features and rock art. Indirect impacts may include soil erosion, gully formation and increased potential for unlawful collection and vandalism. In areas where cultural site presence coincides with areas of livestock concentration, continued grazing may contribute to substantial ground disturbance and cause cumulative, long term, irreversible adverse effects to sites. Alteration of grazing patterns by rotating pastures should have the effect of decreasing any potential damage to existing cultural resources by decreasing the time frame for impacts on any given site.

*Environmental Consequences of the Continuation of Current Management Alternative:* Direct impacts that may occur where livestock concentrate include trampling, chiseling and churning of site soils, cultural features and artifacts, artifact breakage and impacts from standing, leaning and rubbing against above ground features and rock art. Indirect impacts may include soil erosion, gully formation and increased potential for unlawful collection and vandalism. In areas where cultural site presence coincides with areas of livestock concentration, continued grazing may contribute to substantial ground disturbance and cause cumulative, long term, irreversible adverse effects to sites. Alteration of grazing patterns by rotating pastures should have the effect of decreasing any potential damage to existing cultural resources by decreasing the time frame for impacts on any given site.

*Environmental Consequences of the No Grazing Alternative:* Under this alternative, the grazing lease would not be renewed. This alternative would result in no impacts to cultural resource sites.

*Mitigation:* 1] Appropriate mitigation measures may be identified in consultation with Colorado SHPO within the ten-year period of this lease. It is recommended that a renewal be issued for this lease.

2] If historic or archaeological materials are uncovered by the lessee, the lessee shall immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the BLM.

## **INVASIVE, NON-NATIVE SPECIES**

*Affected Environment:* Public lands in the Thornburgh Allotment are relatively free of noxious weeds though species of concern occurring in the area include houndstongue (*Cynoglossum officinale*), yellow toadflax (*Linaria vulgaris*), Canada thistle (*Cirsium arvense*), bull *Cirsium vulgare*, and musk thistle (*Carduus nutans*). Cheatgrass (*Bromus tectorum*), an invasive non-native species is present in the allotment to some extent on Stoney foothill ecological sites and in the historic sheep bedding grounds in the Milk Creek pasture. It is currently a minor component of an otherwise diverse, healthy, vigorous plant community. With livestock grazing the potential exists for spread of houndstongue due to seeds being transported after attaching on the animals' hides. The lessee knew of and treated a small patch of yellow toadflax and it currently appears to be eradicated though the infestation area should continue to be monitored for several years. Through an on-going active weed control program, the lessee is making significant progress in controlling houndstongue, the primary noxious weed found in the Thornburgh allotment.

*Environmental Consequences of the Proposed Action:* Given the steepness of most public lands within the allotment, livestock utilize these areas less and plant communities in these areas appear well developed, diverse, and vigorous. Potential for establishment of noxious weeds on these areas, while possible, is not high.

*Environmental Consequences of Continuation of the Permitted Use Alternative::* Sheep generally utilize steep terrain better than cattle. With proper herding, use of the forage resources can be managed better than with cattle grazing. This is advantageous in maintaining desired vegetation and preventing establishment of noxious weeds. Sheep generally congregate less near water sources than cattle, although trailing back and forth to water and excessive trampling of bedding grounds can impact native vegetative cover providing conditions favorable for noxious weed establishment in those affected areas.

*Environmental Consequences of the No Grazing Alternative:* Under this alternative grazing would not be permitted. Overall cover and density of native species would be expected increase with no grazing pressure. The competitive advantage of the native communities would reduce the opportunity for noxious weed establishment. It is likely that houndstongue would persist even under improved vegetation conditions although the density and rate of spread would be significantly decreased. However, with no livestock grazing the lessee would no longer have a commitment to aggressive management of noxious weeds on public lands. This stewardship is an important factor in preventing or controlling noxious weed infestations on public land.

*Mitigation:* Noxious weed infestations will be addressed on a case-by-case basis. From the White River Resource Area Record of Decision (ROD)/Resource Management Plan (RMP),

Appendix B, #179, a Pesticide Use Proposal will be prepared and approved prior to spraying. All spraying would be under the control of a certified applicator. Herbicides must be registered with the Environmental Protection Agency (EPA).

## **MIGRATORY BIRDS**

*Affected Environment:* The majority of the public lands within this grazing allotment are represented by the brushy loam ecological type (345 acres out of 511 acres public land). Predominant plant species in this ecological type include Gambel oak, serviceberry, snowberry, mountain brome, slender and western wheatgrass and needle grasses. Birds of higher conservation interest (Partners in Flight program) associated with these habitats include the green-tailed towhee and Virginia's warbler. Several green-tailed towhee were documented during a field visit by a BLM biologist on June 6, 2006.

There is a small amount (12 acres) of the brushy loam/aspen woodland ecological type located within the public lands on this allotment. Predominant plant species of this type include aspen, chokecherry, serviceberry, and a variety of grass and forb species. Migratory birds associated with this type include warbling vireo, American robin, common flicker, red-naped sapsucker, purple martin, western wood peewee, flammulated owl, northern goshawk and other accipitrine species.

The stoney foothills ecological type is represented on 117 acres with scattered Wyoming big sagebrush, serviceberry, pinyon pine, Utah juniper, wheatgrass, needle-and-thread, and Indian ricegrass. This ecological type offers limited nesting habitat for migratory birds, although birds of higher conservation interest such as the Brewer's sparrow and green-tailed towhee associated with adjacent sagebrush habitats may use shrubs on the periphery opportunistically. Other ecological types lightly represented (< 5 acres each) include dry exposure, Loamy slopes, clayey foothills, deep loam and foothill swale. The limited acreage of these types limits the migratory birds that would use these parcels during the nesting season.

*Environmental Consequences of the Proposed Action:* The proposed action is not expected to reduce the extent or quality of habitat available for migratory bird breeding functions. BLM personnel conducted Land Health Assessments within the public lands on this allotment in June of 2006. All acres included within this assessment were 'achieving or moving towards achieving' the Public Land Health Standard for the ecological types represented (see section on 'Standards for Public Land Health'). Much of the public lands within this allotment are confined to steep slopes that are less susceptible to livestock grazing. There were areas within the public lands that showed strong grazing-related effects from historic domestic sheep trailing and bedding practices. With the change in the allotment from domestic sheep to cattle, these areas are likely to recover and little use by cattle is expected. The recovery of plant communities on these historic sheep bed and trailing sites will be beneficial for ground or shrub nesting migratory bird species. Cattle may use these slopes later in the season (August or September), but this late-season use will be outside of the breeding window for migratory birds. The Milk Creek pasture (includes 16% public lands) under the proposed rotation would be the only pasture utilized during June and July, when incidental disruption of migratory bird nests in

ground or low shrub situations would be expected. Negligible nesting disruption is expected on the public lands within this pasture based on the small amount of public land represented, typically on steep slopes, combined with the tendency for cattle to use the privately owned valley bottoms and gentler slopes for the majority of grazing.

*Environmental Consequences of the Continuation of the Permitted Use Alternative::*

Under the Continuation of the Permitted Use Alternative, the previous management practices of a sheep operation would be retained. Sheep would likely rotate through the pastures similarly to the proposed cattle-grazing schedule. As stated above, the Milk Creek pasture would be the only pasture grazed during June and July, within the breeding window for migratory birds. Incidental disruption of nests in ground or shrub situations would be expected in this pasture. Under this alternative, the historic sheep bedding and trailing areas would be less likely to recover. Domestic sheep would continue to use these areas based on historic use and site preference demonstrated in the past.

*Environmental Consequences of the No Grazing Alternative:* The removal of livestock grazing on the public lands within the allotment could result in a moderate increase in the herbaceous understory of the shrub and aspen vegetation communities. This increase could result in a moderate increase in ground-nesting avian populations.

*Mitigation:* None

**THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES** (includes a finding on Standard 4)

*Affected Environment:* There are no threatened or endangered animal species that are known to inhabit or derive important benefit from areas within the project site. The small pocket of aspen woodland (12 acres) located on public lands within the allotment would have limited potential to support nesting functions of northern goshawk, however the probability for this isolated tract to support the nesting functions of goshawks is extremely low. There are no records of nesting goshawks within or adjacent to the allotment area. Field reconnaissance by a BLM biologist in June 2006 revealed no raptor nests, current or historic, within this aspen stand.

*Environmental Consequences of the Proposed Action:* The proposed action is not likely to adversely affect the short or long term utility or suitability of habitat in relation to northern goshawk, nor would it be a physically disruptive influence to their reproductive activities. Nesting habitat within the allotment is extremely limited. The small aspen pocket located on public lands within the allotment showed little evidence of recent year's livestock use. Proposed cattle use of this habitat would not be expected to have an adverse consequence on nest site selection, nest attendance, or nestling recruitment during potential goshawk nesting efforts.

*Environmental Consequences of the Continuation of the Permitted Use Alternative* Under the Continuation of the Permitted Use Alternative, the previous management practices of a sheep operation would be retained. Sheep would likely rotate through the pastures similarly to the proposed cattle-grazing schedule. This grazing regimen would affect northern goshawk similar

to the regimen discussed in the proposed action. Domestic sheep use of the small aspen pocket located on public lands within this allotment has not adversely influenced stand persistence and would not be expected to have an adverse consequence on nest site selection, nest attendance, or nestling recruitment during potential goshawk nesting efforts nor would it have any adverse influence on the continued maintenance or availability of this stand for subsequent use.

*Environmental Consequences of the No Grazing Alternative:* The effects of livestock removal on the allotment's vegetation resources as cover for northern goshawk would not be expected to differ markedly from the proposed action. The most prominent difference would likely involve a moderate increase in the herbaceous understory of the small aspen tract. This could result in minor increases in the mammalian and avian prey available for northern goshawk.

*Mitigation* None

*Finding on the Public Land Health Standard for Threatened, Endangered and Sensitive Species:* There is no reasonable likelihood that the proposed action, current management alternative or Continuation of the Permitted Use Alternative would have an influence on the condition or function of Threatened, Endangered, or Sensitive animal species habitat. There would be no effect on achieving the Public Land Health Standard under all alternatives. BLM parcels within this allotment currently meet the Public Land Health Standard for special status species. Livestock use, as proposed, appears fully consistent with the maintenance and continued development of those habitat features (e.g., mature aspen) important to northern goshawk.

## **WASTES, HAZARDOUS OR SOLID**

*Affected Environment:* There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

*Environmental Consequences of the Proposed Action:* No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

*Environmental Consequences of the Continuation of the Permitted Use Alternative* No hazardous or other solid wastes would be generated under the no-action alternative.

*Mitigation:* The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

## **WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)**

*Affected Environment: Surface Water:* The proposed grazing lease renewal is situated stream segment 3c of the Lower Yampa/Green River Basin and stream segment 10b of the White River Basin. 6<sup>th</sup> and 7<sup>th</sup> level watersheds impacted by the proposed PGR are Milk Creek, Coal Creek, and Little Beaver Creek. Milk Creek is a tributary to the Yampa River which is a tributary to the Green River. Coal Creek and Little Beaver Creek are both tributaries to the White River which is a tributary to the Green River in Utah. The Green River is a tributary to the Colorado River. The following table (Table 1) outlines the affected stream segments, basic water quality information, and the number of structures impacting the segment.

<b>Watershed</b>	<b>Stream segment</b>	<b>Drainage Basin</b>	<b>Use Protected</b>	<b>Identified Beneficial Uses</b>	<b>303(d) listed</b>	<b>M&amp;E listed</b>	<b>Impairment</b>	<b>Severity</b>
Milk Creek	3c	Lower Yampa/Green River	N/A	Aquatic life warm 1, Recreation 1a, Water Supply, Agriculture	No	No	N/A	N/A
Coal Creek	10b	White River	UP	Aquatic life cold 1, Recreation 1a, Water supply, Agriculture	No	No	N/A	N/A
Little Beaver Creek								

(CDPHE 2006b)

The “Status of Water Quality in Colorado –2006” (CDPHE 2006b) and Regulation No. 37 Classifications and Numeric Standards for Lower Colorado River Basin (CDPHE 2005a) were reviewed for information relating to drainages within the project area. Stream segment 3c of the Lower Yampa/Green River basin is defined as the mainstem of Milk Creek, including all tributaries, wetlands, lakes and reservoirs, from Thornburgh (County Rd 15) to the confluence with the Yampa River except for the specific listings in segment 3b and 3e. Segment 3c has not been designated use-protected. An intermediate level of water quality protection applies to waters that have not been designated outstanding waters or use-protected waters. For these waters, no degradation is allowed unless deemed appropriate following an antidegradation review. The state has classified segment 3c as being beneficial for the following uses: Warm aquatic life 1, Recreation 1b, Water supply, and Agriculture (CDPHE 2005a).

Stream segment 10b of the White River Basin includes the mainstem of Big Beaver Creek (excluding Lake Avery), Miller Creek, and North Elk Creek, including their tributaries, from their boundary with national forest lands to their confluences with the White River. Mainstem of Coal Creek, including all tributaries, wetlands, lakes and reservoirs from the source to the confluence with the White River. Segment 10b has not been designated use-protected. An intermediate level of water quality protection applies to waters that have not been designated outstanding waters or use-protected waters. For these waters, no degradation is allowed unless deemed appropriate following an antidegradation review. The state has classified segment 10b as being beneficial for the following uses: Cold aquatic life 1, Recreation 1b, Water supply, and Agriculture (CDPHE 2005a).

Newly promulgated Colorado Regulations Nos. 93 and 94 (CDPHE 2006c and 2006d, respectively) were reviewed for information related to the proposed project area drainages. Regulation No. 93 is the State's Section 303(d) list of water-quality-limited segments requiring Total Maximum Daily Loads (TMDLs). The 2006 303(d) list of segments needing development of TMDLs includes two segments within the White River - segment 9b, White River tributaries North and South Forks to Piceance Creek, specifically the Flag Creek portion (for impairment from selenium with a low priority for TMDL development) and segment 22, tributaries to the White River, Douglas Creek to the Colorado/Utah boarder, specifically West Evacuation Wash, and Douglas Creek (sediment impairments). No stream segments within the Lower Yampa/Green River Basin are currently listed. Regulation 94 is the State's list of water bodies identified for monitoring and evaluation, to assess water quality and determine if a need for TMDLs exists. The list includes two White River segments that are potentially impaired – 9b (Flag Creek) and 22 (Soldier Creek). The list also includes two Yampa River segments potentially impaired – 2 (entire portion for sediment), and 16 (entire portion for sediment and fecal Coliform). Stream segments 3c and 10b are not listed.

Ground Water: Local ground water situated within alluvial/colluvial fans and in floodplains adjacent to stream banks in limited riparian areas are the most vulnerable ground water sources within the allotment likely to be impacted by livestock grazing.

*Environmental Consequences of the Proposed Action:* Under the proposed action, active AUMs will decrease from 124 (sheep) to (55 cattle). This reduction in active AUMs should slightly increase potential litter accumulation and vegetal cover. As a result, soils should become slightly less vulnerable to erosional processes reducing sediment/salt production to lower reaches of the affected watersheds. In addition, reducing livestock numbers in riparian areas and near spring sources would likely have a positive impact to the health and vigor of riparian communities. Healthy riparian communities help anchor stream banks, and maintain functional channel morphologic conditions in which sediment supply is in balance with flow characteristics.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* Under the Continuation of the Permitted Use Alternative, previous management practices of a sheep operation would be retained. However, with the Continuation of the Permitted Use Alternative active AUMs on public lands would increase from 55 (cattle) to 124 (sheep). This increase in active AUMs would likely decrease potential litter accumulation and vegetal cover. As a result, soils may become more vulnerable to erosional processes increasing sediment/salt production to lower reaches of the affected watersheds. In addition, increasing the active AUMs in riparian areas would likely have a negative impact to the health and vigor of riparian communities. Unhealthy riparian communities decrease stream bank stability deteriorating natural morphologic conditions.

*Environmental Consequences of the No Grazing Alternative:* No grazing will be permitted. Preferred upland and riparian vegetative communities would have greater potential for recovery. The effective ground cover would likely increase providing greater soil stabilization, increased stream bank protection, and reduced sediment/salt loading to the affected watersheds.

*Mitigation:* Compliance monitoring for vegetation improvement would help identify if additional actions were needed to comply with the *Clean Water Act*. In addition, continued monitoring of stream channel morphology (Rosgen survey data) will be essential to evaluate the impacts of increased livestock numbers on the affected watersheds.

*Finding on the Public Land Health Standard for water quality:* Stream segments 3c of the Lower Yampa/Green River Basin and 10b of the White River Basin currently meet water quality standards set by the state. Implementation of the proposed change in livestock use will not change this status.

## **WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)**

*Affected Environment:* The only riparian/wetland area on public land within the Thornburgh allotment is the small seep located in T3N R92W Sec 32. While the seep source is currently being subjected to trampling and wallowing primarily by elk though to some degree by livestock during the period when they are in the Milk Creek pasture, the riparian vegetation including sedges, rushes and cattails below the seep appears to be well established, vigorous and properly functioning.

*Environmental Consequences of the Proposed Action:* Trampling of the saturated area associated with the seep would be reduced when the lessee constructs a 3-rail pole fence around it. Elk use is expected to continue in the fenced area though in the future when the seep is developed, impact in the saturated area would be expected to be further reduced as wildlife made use of the tank and its associated overflow area.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* Under a continuation of sheep use in the allotment, trampling effects would be expected to be similar though certain characteristics of sheep use are more conducive to high-quality riparian habitat since sheep tend to utilize the uplands and steep slopes more efficiently. The lessee would still plan to fence and eventually further develop the seep, effectively protecting it from livestock related trampling.

*Environmental Consequences of the No Grazing Alternative:* The riparian vegetation associated with this seep/spring would remain in good and properly functioning condition. Reduced pressure on the riparian vegetation would lead to increased ground cover by vegetation and improved soil protection. However without a grazing lease, the lessee would likely not fence or in any way improve the seep. Wildlife would continue to trample and wallow in the saturated area.

*Mitigation:* Future monitoring, including photos, by the BLM rangeland management specialist assigned to this allotment shall occur to monitor riparian condition, including vegetation utilization at this small site.

*Finding on the Public Land Health Standard for riparian systems:* Riparian systems are expected to continue to meet the Public Land Health Standard under all alternatives.

## **CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No ACEC's, flood plains, prime and unique farmlands, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

## **NON-CRITICAL ELEMENTS**

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

### **SOILS** (includes a finding on Standard 1)

*Affected Environment:* See tables in the Rangeland Management section of this document for a breakdown of soil units and associated ecological sites of BLM and private acres within the Thornburgh allotment. Soils analyzed in this document have been covered in the Rio Blanco County Soil Survey. These soil surveys delineate individual soil unit polygons and associated ecological sites.

*Environmental Consequences of the Proposed Action:* Cattle have a greater tendency than sheep to congregate valley bottoms and gentler slopes. Most public lands within the Thornburgh allotment occur on brushy slopes of varying steepness. While cattle will make some use in these areas under the proposal grazing use should be at a level that will allow ample opportunity for regrowth of native vegetation after grazing or grazing use will occur at such a light level that plant communities should be maintained at their current state and provide adequate soil protection.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* Under this alternative, sheep would continue to be the authorized livestock type. Sheep are more inclined than cattle to form multiple trail patterns leading between water sources, feeding areas, and bed grounds. Currently no multiple trail patterns have been formed and there is no issue on the allotment. However, if trail patterns did occur in the future because of poor herding practices, it would cause a reduction in plant cover and lead to excessive water movement in the bare ground of the trail system, potentially resulting in increased erosion.

*Environmental Consequences of the No Grazing Alternative:* Ground cover and density of the existing plant communities would increase with no livestock grazing related pressure. Soil stability would increase with the increase in vegetative matter and accumulated litter. However, current soil conditions are satisfactory and meet landscape health standards. Perceived benefit of increased soil stability would be minor with regard to functionality of the rangelands.

*Mitigation:* None

*Finding on the Public Land Health Standard for upland soils:* Vegetation production and species composition on public lands in this allotment provide adequate cover for soil protection and forage production, thus they meet or exceed the Colorado Public Land Health Standards. Overall, as indicated by historic sheep and cattle use within the allotment, soil protection provided by existing ground cover would continue to meet required Public Land Health Standards. Soils would continue to provide for a functioning landscape.

**VEGETATION** (includes a finding on Standard 3)

The following table lists plant communities and the dominant plant species for the ecological sites or woodland types on the allotment as associated with the proposed action. Forb species, though important to the diversity of a community and comprising up to 25 to 30% of the composition of several of the plant communities listed, are not presented in the following table because they generally are not significant contributors to the general appearance of the community.

**PLANT COMMUNITIES AND DOMINANT PLANT SPECIES BY ECOLOGICAL SITES**

<b>Ecological Site / Woodland Type</b>	<b>Plant Community Appearance</b>	<b>Predominant Plant Species in the Plant Community</b>
Brushy Loam	Deciduous Shrub/grass Shrubland	Serviceberry, oakbrush, snowberry, mountain brome, slender wheatgrass, western wheatgrass, Letterman and Columbia needle grasses
Clayey Foothills	Grass/Open Shrub Shrubland	Western wheatgrass, mutton grass, Indian rice grass, squirreltail, June grass, Wyoming big sagebrush, black sagebrush
Clayey Slopes	Grassland	Salina wildrye, mutton grass, western wheatgrass, June grass, squirreltail, shadscale, Wyoming big sagebrush
Deep Clay Loam	Grass/Open Shrub Shrubland	Western wheatgrass, slender wheatgrass, mutton grass, squirreltail, June grass, Letterman and Columbia needle grasses, mountain big sagebrush
Deep Loam	Grassland	Bluebunch wheatgrass, muttongrass, needle-and-thread, western wheatgrass, slender wheatgrass, big sagebrush, serviceberry, snowberry.
Dry Exposure	Grassland	Beardless bluebunch wheatgrass, needle-and-thread, June grass, Indian rice grass, fringed sage, buckwheats
Foothill Swale	Grass/Open Shrub Shrubland	Basin wildrye, western wheatgrass, slender wheatgrass, streambank wheatgrass, Indian rice grass, Nevada bluegrass, basin big sagebrush, fourwing saltbush, rubber rabbitbrush
Loamy Slopes	Mix Shrub/grass Shrubland	Mountain mahogany, bitterbrush, serviceberry, mountain big sagebrush, beardless bluebunch wheatgrass, western wheatgrass, June grass, Indian rice grass
Stony Foothills	Grass/Open Shrub Shrubland	Beardless bluebunch wheatgrass, western wheatgrass, needle-and-thread, June grass, Indian rice grass, fringed sage, Wyoming big sagebrush, black sage, serviceberry, pinyon and juniper
Pinyon/Juniper	Pinyon/Juniper Woodland	Pinyon pine, Utah juniper, mountain mahogany, bitterbrush, serviceberry, Wyoming big sagebrush, beardless bluebunch wheatgrass, western wheatgrass, June grass, Indian rice grass, mutton grass

The following table shows the seral rating used by the BLM to rate rangeland vegetation communities in comparison to the Potential Natural Plant Community (PNC) for a particular ecological site.

**ECOLOGICAL SITE SIMILARITY RATINGS**

<b>Seral Rating</b>	<b>% Similarity to the Potential Natural Plant Community (PNC)</b>
Potential Natural community (PNC)	76-100% composition of species in the PNC
Late-Seral	51-75% composition of species in the PNC
Mid-Seral	26-50% composition of species in the PNC
Early-Seral	0-25% composition of species in the PNC

The following tables show an estimate of the public land acreage falling within each of the seral ratings for ecological sites on the Thornburgh allotment. These estimates are based on professional judgment of the Rangeland Management Specialist trained in the use of the rating system. During the 2006 field season the most significant ecological sites on the allotment were visited for a plant community assessment of the Colorado Public Land Health Standards.

<b>Thornburgh Allotment (06802)</b>						
<b>Ecological Site Similarity Rating</b>						
<b>Ecological Site</b>	<b>Total BLM ACRES</b>	<b>PNC</b>	<b>Late Seral</b>	<b>Mid Seral</b>	<b>Early Seral</b>	<b>BLM Acres Classified</b>
Badlands (none)	1.2	1				<b>1</b>
Foothill Swale	0.6	0	0			<b>1</b>
LoamySlopes/LoamySlopes/ClayeyFoothills	0.7		1			<b>1</b>
Brushy Loam	335.7	48	263	22	3	<b>342</b>
BrushyLoam/AspenWoodland/AspenWoodland	27.6	15	13			<b>28</b>
Stoney Foothills	114.9	80	23	8	4	<b>115</b>
Dry Exposure	7.7	5	3			<b>8</b>
Deep Loam	0.2		0			<b>0</b>
<b>Total:</b>	<b>489</b>	<b>150</b>	<b>303</b>	<b>30</b>	<b>7</b>	<b>495</b>
<b>% BLM Acres Classified:</b>		<b>30%</b>	<b>62%</b>	<b>6%</b>	<b>1%</b>	<b>100%</b>

In the Thornburgh allotment 99% of the classifiable ecological sites have plant communities within acceptable, desired thresholds (mid to PNC) as defined in the White River ROD/RMP. Vegetation production and composition of native species on these sites provide adequate cover for soil protection and forage to meet livestock demands. These sites are not presently at risk of degradation and are at low risk of invasion by non-native species. On steep sites inaccessibility results in low impact from livestock or wildlife and accordingly these areas are within an acceptable land health standard status.

Within the brushy loam ecological site in the Milk Creek pasture, there is an area previously used as a sheep bedding ground. While this area still has a presence of desirable native vegetation, it has a strong component of cheatgrass and other weedy annual forbs such as purple mustard (*Chorispora tenella*.) In the stoney foothills ecological sites, also in the Milk Creek pasture a moderate presence of cheatgrass was also noted throughout the plant community.

*Affected Environment:* Several ecological sites are present in the Thornburgh allotment though the sites accounting for the largest areas of land are brushy loam and stoney foothills on public land. Overstory in these ecological sites is primarily Gambel oak, serviceberry, snowberry, pinyon/juniper, and big sagebrush. The understory of these sites includes mountain brome, western wheatgrass, elk sedge, Indian ricegrass, Kentucky bluegrass, nodding brome and basin wildrye. Overall, these ecological sites are currently highly productive with healthy and diverse plant communities.

*Environmental Consequences of the Proposed Action:* Under the proposed action, overall impacts to the vegetation community should be negligible with respect to plant diversity, cover amounts, and litter accumulation. A straight conversion factor of five sheep to one cow was not used to establish the animal unit equivalent. Cattle AUMs have been reduced proportionate to the amount of land suitable for cattle distribution. Under the proposal, plant communities in the pastures that are grazed later will have critical growing season rest every year allowing the plants to meet their physiological needs of replenishing nutrient stores and allowing for seed production. Public lands in the Boxelder and South Boxelder pastures are primarily steep and or brushy slopes thereby limiting livestock use on these sites. Plants would be grazed at a low intensity, resulting in only some of the plants being subjected to grazing pressure. Each plant will have a higher probability for growth and or regrowth to reach maturity for an increased or maintained level of plant vigor.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* Rangeland conditions of the allotment would remain in a healthy resilient state with sheep use, as indicated from historic use and current vegetation communities which are meeting rangeland health standards. Thus, it would be anticipated that rangeland health standards would continue to be met in the future.

*Environmental Consequences of No Grazing Alternative:* Ground cover and density of the existing plant communities would increase without grazing pressure from livestock. Soil stability would increase with the additional vegetative matter. However, current conditions of the existing plant communities and soil are in a satisfactory state and meeting the standards for rangeland health. Perceived benefits of increased ground cover and density of the existing vegetation, along with increased soil stability, would likely be minor within the functionality of these rangelands.

*Mitigation:* None

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Vegetation production and species composition on these sites provide adequate opportunity for regrowth and maintenance of existing plant community conditions to meet a multitude of demands.

**WILDLIFE, AQUATIC** (includes a finding on Standard 3)

*Affected Environment* The only riparian/wetland area on public land within the Thornburgh allotment is the small seep located in T3N R92W Sec. 32. See the ‘Wetlands and Riparian Zones’ section of the ‘Affected Environment/Environmental Consequences/Mitigation Measures’ for the affects analysis on this seep.

*Environmental Consequences of the Proposed Action:* See above.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* See above.

*Environmental Consequences of the No Grazing Alternative:* See above.

*Mitigation* None; (Refer to ‘Wetlands and Riparian Zones’ section of the ‘Affected Environment/Environmental Consequences/Mitigation Measures’ for mitigation measures at the seep site).

*Finding on the Public Land Health Standard for plant and animal communities:* Riparian systems (the only aquatic community within BLM lands on this allotment) are expected to continue to meet the Public Land Health Standard under all alternatives.

### **WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)**

*Affected Environment:* The Thornburgh allotment includes range for mule deer and elk. The entire allotment, including the BLM parcels, is categorized by the Colorado Division of Wildlife as summer range for both elk and mule deer, occupied from May through September. The entire allotment is categorized as elk winter range with a large portion, including both private and BLM land, categorized as an elk winter concentration area, typically occupied December through April. During an allotment inspection in June 2006, the BLM biologist observed no obvious instances of prolonged animal concentration or forage conditions that indicated excessive levels of seasonal use. The one small seep located in the Milk Creek pasture, showed signs of trampling and wallowing by elk combined with livestock use. Despite the observed trampling at the immediate seep area, the riparian vegetation including sedges, rushes and cattails below the seep appeared to be well established, vigorous and properly functioning.

Raptor breeding habitat within the BLM parcels within the allotment is limited. There are nearby cliffs that provide nesting habitat for golden eagle, prairie falcon and red-tailed hawk that may use portions of the allotment for opportunistic foraging activities. The small aspen pocket located on BLM land within the Boxelder pasture provides limited nesting habitat for accipitrine species, although no evidence of past or current nesting was found during a recent site visit. Northern harriers were observed foraging in the private land portion of the allotment along Milk Creek.

Small mammal populations are poorly documented. There are several species that are likely to occur within the allotment area and they display broad ecological tolerance and are widely

distributed throughout the Southern Rocky Mountain Region. No narrowly distributed or highly specialized species or subspecific populations are known to occupy habitat within this allotment.

*Environmental Consequences of the Proposed Action:* Recent use by livestock within the BLM parcels on this allotment was not apparent during a field visit in June 2006. Much of the public lands within this allotment are confined to steep slopes that are less susceptible to livestock grazing. There were areas within the public lands that showed historic domestic sheep trailing and bedding. With the change in the allotment from domestic sheep to cattle, these areas are likely to recover and little use by cattle is expected. Cattle tend to use the valley bottoms and gentler slopes located on private lands within the allotment. The recovery of plant communities on these historic sheep bed and trailing sites will be beneficial for ground or shrub nesting migratory bird species as well as big game and small mammals. Light or incidental cattle use of these slopes later in the season (August or September) may occur. Construction of a 3-rail fence around the small seep located within the Milk Creek pasture is planned along with the placement of a water tank and associated piping from the spring to reduce trampling around the seep. This would be expected to reduce the intensity and duration of trampling damage by preventing further livestock use, though it will not prevent elk use within the fenced area. Impacts from elk within the fenced area should decrease, however, as elk would also make use of the established water tank and its associated overflow area.

Livestock use on public lands within the allotment has no substantive effect on vegetation expression or ecological processes. All acres included within this assessment were 'achieving or moving towards achieving' the Public Land Health Standard for the ecological types represented (see section on Standards for Public Land Health). The proposed action would have no conceivable influence on the availability of raptor nest substrate, the abundance or diversity of avian or mammalian prey species or habitat available for small mammals. Cattle would not use the Boxelder pasture, which contains the only aspen woodland within the public lands on the allotment, until August. This late summer use would be after the breeding window for raptors and migratory birds that could potentially use the aspen pocket for nesting activities. In addition, the proposed action would have little influence on the extent or availability of big game forage or cover resources.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* Under the Continuation of the Permitted Use Alternative, the previous management practices of a sheep operation would be retained. Sheep would likely rotate through the pastures similarly to the proposed cattle-grazing schedule. The Milk Creek pasture would be the only pasture grazed during June and July, within the breeding window for raptors. Domestic sheep use of the small aspen pocket located within the Boxelder pasture (8/1-10/1) would not be expected to have an adverse consequence on nest site selection, nest attendance, or nestling recruitment during raptor nesting efforts.

Retaining domestic sheep grazing management practices would have little influence on the extent or availability of big game forage or cover resources.

The small seep located within the Milk Creek pasture would have less trampling due to livestock under sheep grazing as compared to cattle grazing. Trampling and wallowing by elk, however,

would still occur and positive benefits derived from sheep use versus cattle use may be negligible.

Under this alternative, the historic sheep bedding and trailing areas would be less likely to recover. Domestic sheep would continue to use these areas based on historic use and site preference demonstrated in the past.

*Environmental Consequences of the No Grazing Alternative:* The removal of livestock grazing on the public lands within the allotment could result in a moderate increase in the herbaceous understory of the shrub and aspen vegetation communities. This increase would provide a moderate increase in forage for big game and could result in a moderate increase in small mammal and ground-nesting avian populations.

*Mitigation* None (Refer to ‘Wetlands and Riparian Zones’ section of the ‘Affected Environment/Environmental Consequences/Mitigation Measures’ for mitigation measures at the seep site).

*Finding on the Public Land Health Standard for plant and animal communities:* The BLM lands within this allotment currently meet the Public Land Health Standards for terrestrial animal communities. As discussed in the environmental consequences sections above, the proposed action, no action and no grazing alternatives would have no influence on the continued meeting of the Public Land Health Standards for terrestrial animal communities.

**OTHER NON-CRITICAL ELEMENTS:** For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management	X		
Forest Management			X
Geology and Minerals		X	
Hydrology/Water Rights			X
Law Enforcement		X	
Noise	X		
Paleontology	X		
Rangeland Management			X
Realty Authorizations		X	
Recreation		X	
Socio-Economics		X	
Visual Resources		X	
Wild Horses	X		

## **FOREST MANAGEMENT**

*Affected Environment:* The Boxelder pasture contains approximately 12 acres of aspen forest within the 28 acres identified within the brushy loam range site. These aspen stands are on north and east facing slopes, but because of the low elevation are on marginal habitat which is exhibited in the small stature of these trees. There is some reproduction within the stand but the sprouts are subject to being grazed by livestock and wildlife. Within the White River land use plan of 1997 aspen stands the Danforth/Jensen areas are available for firewood harvest and for transplants. The limits for the Danforth/Jensen areas are 10 cords of firewood per year and 50 saplings and 200 seedlings per year. This area does not have public access and no harvest of firewood or transplants is known to have occurred.

*Environmental Consequences of the Proposed Action:* Changing the class of livestock to cattle and implementing a grazing system would allow for growing season deferment every year allowing the understory to complete growth requirements of seed production and carbohydrate storage every year. The understory should increase in cover and production. The drawback to the change to grazing cattle is; cattle are expected to use the aspen for both shade and forage and coupled with the close proximity of water, grazing intensity may be heavy, exceeding the land use plan recommended utilization limit of 40 to 60 percent during the period June 15 to March 31. Aspen reproduction would be subject to the same impacts as the understory, heavy utilization. With monitoring associated with the renewal of this lease in 2016 an assessment can be made of the grazing program on the aspen stands and modifications/facilities needed applied to the new grazing lease.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* Under this alternative sheep would continue to graze the allotment on a growing season long basis. Sheep would also be expected to use the aspen stands for forage and shade. Because of the proximity of water, grazing use in the aspen stands would continue as in the past with limited aspen reproduction. With monitoring associated with the renewal of this lease in 2016 an assessment can be made of the grazing program on the aspen stands.

*Environmental Consequences of the No Grazing Alternative:* Under the no grazing alternative the only impacts to aspen would be from wildlife. Current impacts to the stands from wildlife are unknown, but it is expected that total utilization within the stands would be less and the opportunity for reproduction within the stands would be increased.

*Mitigation:* At the end of the 10 year cycle of this lease renewal an assessment of the condition/trend of the aspen stands should be completed to determine if modifications are needed to the lease.

## **HYDROLOGY AND WATER RIGHTS**

*Affected Environment:* 6<sup>th</sup> and 7<sup>th</sup> level watersheds impacted by the proposed PGR are Milk Creek, Coal Creek, and Little Beaver Creek. Milk Creek is a tributary to the Yampa River which is a tributary to the Green River. Coal Creek and Little Beaver Creek are both tributaries

to the White River which is a tributary to the Green River in Utah. The Green River is a tributary to the Colorado River.

The proposed grazing lease renewal has limited direct impacts to surface water drainages (~2.8 miles). One spring/seep has been identified on BLM lands within the Milk Creek pasture. This water source was first inventoried in the summer of 2006 and currently no water rights have been filed. On site observation by the BLM Rangeland Management Specialist indicates discharge permanence as perennial and reports the water source is supporting a vigorous riparian community (Nebraska sedge, rushes and cattails).

*Environmental Consequences of the Proposed Action:* Under the proposed action, the above mentioned spring source will be developed as outlined in the proposed action. Development of the spring source will help protect the source area from livestock/wildlife use which could deteriorate the morphologic condition of the spring source as well as the associated riparian community. In addition, the BLM will obtain water rights for the spring ensuring beneficial uses for wildlife and livestock watering for many years to come. The proposed change in type of livestock use will have minimal impacts to current hydrologic conditions and water rights on public lands within the allotment boundaries.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* No spring development will occur, and spring sources will remain vulnerable to adverse impacts resulting from livestock/wildlife usage. Alternative, previous management practices of a sheep operation would be retained. However, with the Continuation of the Permitted Use Alternative active AUMs on public lands would increase from 55 (cattle) to 124 (sheep). This increase in active AUMs would likely decrease potential litter accumulation and vegetal cover. As a result, increasing the active AUMs in riparian areas would likely have a negative impact to the health and vigor of riparian communities. Unhealthy riparian communities decrease stream bank stability deteriorating natural morphologic conditions.

*Environmental Consequences of the No Grazing Alternative:* No grazing will be permitted. Preferred upland and riparian vegetative communities would have greater potential for recovery. The effective ground cover would likely increase providing greater soil stabilization and increasing stream bank protection. However, spring sources would not be protected from wildlife usage and may deteriorate as a result.

*Mitigation:* Spring developments must be maintained and all non-functional items (e.g. old water troughs, pipes, fence, etc...) must be removed and properly disposed of by the grazing lease holder. The BLM will obtain water rights for all springs located on public lands within the allotment boundaries. Range improvement projects (springs) will be monitored to evaluate the functionality of developments and assess water quality at spring sources.

## **RANGELAND MANAGEMENT**

*Affected Environment:* The Thornburgh allotment has three pastures (Milk Creek, Boxelder, and South Boxelder). The table below shows the acreages broken down by land status, and AUMs as outlined under the proposed action.

PASTURE	OWNERSHIP	ACRES	LIVESTOCK AUMS	ACRES/AUM (LIVESTOCK)
Milk Creek	BLM	228.4	42	5.4
	Private	1207.1	289	4.2
	<b>Pasture Total</b>	<b>1435.5</b>	<b>331</b>	<b>5</b>
Boxelder	BLM	214.7	40	5.4
	Private	833.9	199	4.2
	<b>Pasture Total</b>	<b>1048.6</b>	<b>239</b>	<b>5</b>
S. Boxelder	BLM	45.6	6	8
	Private	106.6	28	4
	<b>Pasture Total</b>	<b>154.2</b>	<b>34</b>	<b>6</b>
<b>Total BLM</b>		<b>489</b>	<b>88</b>	<b>5.5</b>
<b>Total Private</b>		<b>2148</b>	<b>516</b>	<b>4.2</b>
<b>Total BLM &amp; Private</b>		<b>2637</b>	<b>604</b>	<b>4.8</b>
<b>Continuation of the Permitted Use Alternative (Sheep use)</b>		<b>489 (BLM)</b>	<b>124 (BLM)</b>	<b>3.9</b>

Several ecological sites are present in the Thornburgh allotment though the sites accounting for the largest areas of public land are brushy loam and stoney foothills. The most productive and accessible rangelands in the allotment are located on private lands. Public lands are primarily steeper slopes. Overstory in these ecological sites is primarily Gambel oak, serviceberry snowberry, pinyon/juniper, and big sagebrush. The understory of these sites includes mountain brome, western wheatgrass, elk sedge, Indian ricegrass, Kentucky bluegrass, nodding brome and basin wildrye. Overall, these ecological sites are currently highly productive with healthy and diverse plant communities.

The Davidson Yellow Jacket Ranch combines its livestock operation on not only the Thornburgh allotment but on other private land leases, privately owned pastures, and BLM leases administered out of both the White River Field Office in Meeker and the Little Snake Field Office in Craig, Colorado as well.

Under the proposed grazing schedule there would be 80 cattle in the Thornburgh allotment from mid June through October while the balance of the ranches' cattle are on other allotments and private pastures. The 80 cattle would graze in the Milk Creek pasture June 16 through July 30. Vegetation including riparian plants associated with the spring in Section 32, would have ample opportunity for regrowth after cattle leave this pasture. Livestock would then move to the Boxelder pasture and remain there through October. Vegetation in this pasture would have adequate time within the growing season before livestock enter the pasture for plants to produce seed and meet physiological needs for replenishing root nutrient reserves. From mid August through mid September an average of 25 cows at any given time are allowed to drift from other private land leases outside of the allotment through the South Boxelder pasture on their way to

another private pasture. Under the proposed grazing schedule, forage species in the South Boxelder pasture would not be grazed by livestock at all during the growing season.

Information from the Forage Production tables below show estimated carrying capacity (AUMs) of livestock for all pastures in the allotment. The tables are broken down by soil type by acres, acres per AUM and the number of AUMs produced on that ecological site. The tables were used in part to determine the available forage contribution produced on public land (%PL). Based in part on these tables, the grazing lessee and BLM worked together to develop the proposed grazing schedule, which likely has resulted in a grazing schedule that is both workable for the livestock operator and will allow the rangelands to continue to meet landscape health standards into the future. In developing the grazing schedule cattle distribution factors including distance between water sources and foraging areas, topography, and herding practices make the actual available AUMs lower than the estimated AUMs. For these reasons the AUMs in the grazing application are lower than the estimated grazing capacity (AUMs). Current rangeland conditions including public land health standards were taken into consideration when developing the grazing schedule based on cattle use.

**Forage Production analysis on all lands within the Thornburgh Allotment**

<b>Boxelder Pasture (BLM)</b>				
<b>Soil Unit</b>	<b>Ecological Site</b>	<b>BLM Acres</b>	<b>Acres/ AUM</b>	<b>BLM AUMs</b>
Bulkley-Abor clay loams,5-30%slopes	Clayey Foothills	1.07	6	0
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	1.55	8	0
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	121.44	8	16
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	12.03	8	2
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	78.6	5	16
		<b>215</b>		<b>34</b>

<b>Boxelder Pasture (Private)</b>				
<b>Soil Unit</b>	<b>Ecological Site</b>	<b>Pvt Acres</b>	<b>Acres/ AUM</b>	<b>Pvt AUMs</b>
Bulkley-Abor clay loams,5-30%slopes	Clayey Foothills	92.93	8	12
Dollard silty clay loam,15-40%slopes	Clayey Foothills	46.07	8	6
Havre loam,0-4%slopes	Foothill Swale	0.21	6	0
Jerry-Thornburgh-Rhone complex,8-65%slopes	Brushy Loam/Brushy Loam	31.48	6	5
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	411.45	6	69
Pinelli clay laom,3-12%slopes	Clayey Foothills	16.96	4	4
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Wdln /Aspen Wdln	103.15	8	13
Shawa loam,3-8%slopes	Deep Loam	23.31	6	4
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	18.22	8	2
Water	None	7.67	8	0
Waybe-Vandamore Variant-RO,complex,5-30%slopes	Dry Exposure	82.46	8	10
		<b>834</b>		<b>133</b>

<b>South Boxelder (BLM)</b>				
<b>Soil Unit</b>	<b>Ecological Site</b>	<b>BLM Acres</b>	<b>Acres/AUM</b>	<b>BLM AUMs</b>
Mergel-Redthayne-Dollard complex,8-65%slopes	Loamy Slopes/Loamy Slopes/Clayey Foothills	0.05	0	0
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	24.34	5	5
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	15.90	8	2
Waybe-Vandamore Variant-RO,complex,5-30%slopes	Dry Exposure	7.28	8	1
		<b>47</b>		<b>8</b>

<b>South Boxelder (Private)</b>				
<b>Soil Unit</b>	<b>Ecological Site</b>	<b>Pvt Acres</b>	<b>Acres/AUM</b>	<b>Pvt AUMs</b>
Mergel-Redthayne-Dollard complex,8-65%slopes	Loamy Slopes/Loamy Slopes/Clayey Foothills	0.78	8	0
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	93.48	8	12
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	1.23	6	0
Waybe-Vandamore Variant-RO,cmplx,5-30%slopes	Dry Exposure	11.15	6	2
		<b>107</b>		<b>14</b>

<b>Milk Creek (BLM)</b>				
<b>Soil Unit</b>	<b>Ecological Site</b>	<b>BLM Acres</b>	<b>Acres/AUM</b>	<b>BLM AUMs</b>
Badland	None	3.91	0	0
Havre loam,0-4%slopes	Foothill Swale	0.21	4	0
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	186.27	8	25
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	37.64	8	5
Work Loam,15-25%slope	Deep Loam	0.38	5	0
		<b>228</b>		<b>30</b>

<b>Milk Creek (Pvt)</b>				
<b>Soil Unit</b>	<b>Ecological Site</b>	<b>Pvt Acres</b>	<b>Acres/AUM</b>	<b>Pvt AUMs</b>
Badland	None	50.07	0	0
Havre loam,0-4%slopes	Foothill Swale	176.85	8	22
Owen Creek-Jerry-Burnette loams,5-35%slopes	Brushy Loam	515.82	6	86
Rhone-Northwater-Lamphier loams,3-50%	Brushy Loam/Aspen Woodland/Aspen Woodland	56.68	6	9
Torriorthents-Rock Outcrop, complex,15-90%slopes	Stoney Foothills	351.31	6	59
Waybe-Vandamore Variant-RO,complex,5-30%slopes	Dry Exposure	19.75	4	5
Work Loam,15-25%slope	Deep Loam	36.63	6	6
		<b>1207</b>		<b>187</b>

*Environmental Consequences of the Proposed Action:* Refer to the Vegetation section of this document for analysis of rangeland vegetation impacts. Under the proposed action the grazing lease for the Thornburgh allotment would be issued for cattle grazing. Livestock grazing would continue to occur at generally the same level it has been for the last two grazing seasons. Both public and private rangelands in the allotment are in good condition and produce a variety of forage types. Areas likely to be utilized by cattle are highly productive with a wide variety of desirable forage species. The proposed grazing schedule will provide documentation of actual livestock use in each pasture and allow for improved monitoring based on known use in each pasture. As indicated by the current year's utilization and overall range condition, the proposed action would result in rangelands continuing to meet public land health standards including healthy, diverse plant communities contributing to stable soils.

*Environmental Consequences of the Continuation of the Permitted Use Alternative:* Under this alternative, the grazing lease for the Thornburgh allotment would be renewed as a sheep allotment. If the allotment reverted back to sheep use rangeland conditions in the allotment would likely remain in good condition as indicated from historic use and current vegetation communities which are meeting rangeland health standards. Under this alternative, the lessee would realize a negative economic impact if forced to sell their existing cattle herd to convert back to a sheep operation. Generally, the market trend for sheep products has experienced a dramatic downfall with no perceived relief in the future. For the operator to be authorized for sheep use would be harmful as the ranch would have to convert back to a sheep operation and would not be able to take advantage of the more robust cattle market.

*Environmental Consequences of the No Grazing Alternative:* Under this alternative Davidson Yellow Jacket Ranch would not have the ability to authorize the existing grazing lease and livestock grazing use would not be permitted on public lands. Plant communities would likely experience a slight increase in percent ground cover and an increase in density of native species. Forage produced on public lands in the allotment account for a minority (18%) relative to that produced on private lands (82%). Grazing would likely continue on private lands within the boundaries of the allotment, which would require fencing off of all BLM lands. This amount of fencing would be costly in terms of construction and maintenance, and negatively impact wildlife movement and open landscape aesthetics.

*Mitigation:* none

**CUMULATIVE IMPACTS SUMMARY:** Cumulative impacts from the proposed action would not exceed those discussed in the White River Resource Area RMP and/or White River Resource Area Grazing Management Environmental Impact Statement (EIS).

#### **REFERENCES CITED:**

Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD), 2005. "Colorado Air Quality Data Report – 2004," September 2005.

Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Commission (WQCC), 2004a. Regulation No. 37 Classifications and Numeric Standards for Lower Colorado River Basin. Adopted 1983 and Effective January 20, 2004.

CDPHE-WQCC, 2006b. “Status of Water Quality in Colorado – 2006, The Update to the 2002 and 2004 305(b) Report,” April 2006.

CDPHE-WQCC, 2006c. “Regulation No. 93, 2006 Section 303(d) List Water-Quality-Limited Segments Requiring TMDLs,” effective April 30.

CDPHE-WQCC, 2006d. “Regulation No. 94, Colorado’s Monitoring and Evaluation List,” effective April 30.

**PERSONS / AGENCIES CONSULTED:** A Public Notice of the NEPA action is posted on the White River Field Office Internet website at <http://www.co.blm.gov/nepa/wrfonepa.htm> asking for public input on Grazing Permit renewals and the assessment of public land health standards within the White River Field Office area. Local notification is published in the Rio Blanco Herald Times newspaper located here in Meeker, Colorado on a monthly basis. The Grazing Advisory Board was notified of impending Grazing Permit renewals. Also, individual letters are sent to the lessees/permittees informing them that their grazing permit is up for renewal and request any information they want included in or taken into consideration during the renewal process.

**INTERDISCIPLINARY REVIEW:**

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>
Nate Dieterich	Hydrologist	Air Quality, Water Quality, Surface and Ground Hydrology and Water Rights
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern, Threatened and Endangered Plant Species
Gabrielle Elliott	Archeologist	Cultural Resources, Paleontological Resources
Mary Taylor	Rangeland Mgmt Specialist	Invasive, Non-Native Species, Rangeland Management, Vegetation, Soils, Wetlands and Riparian Zones
Mary Cunningham	Wildlife Biologist	Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Wildlife
Melissa J. Kindall	Hazmat Collateral; Range Technician	Wastes, Hazardous or Solid; Wild Horses
Chris Ham	Outdoor Recreation Planner	Wilderness, Access and Transportation, Recreation, Visual Resources
Mary Cunningham	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Linda Jones	Realty Specialist	Realty Authorizations

## **Finding of No Significant Impact/Decision Record (FONSI/DR)**

### **CO-110-2006-038-EA**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in 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.

**DECISION/RATIONALE:** It is my decision to renew the grazing lease of the Thornburgh allotment for a period of 10 years as described in the proposed action with the addition of the mitigation listed below.

**MITIGATION MEASURES:**

- Continued monitoring and evaluation of rangeland health conditions will be necessary to modify the carrying capacity of the allotment due to drought conditions.
- Appropriate mitigation measures may be identified in consultation with Colorado SHPO within the ten-year period of this lease. It is recommended that a renewal be issued for this lease.
- If historic or archaeological materials are uncovered by the lessee, the lessee shall immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the BLM.
- Noxious weed infestations will be addressed on a case-by-case basis. From the White River Resource Area Record of Decision (ROD)/Resource Management Plan (RMP), Appendix B, #179, a Pesticide Use Proposal will be prepared and approved prior to spraying. All spraying would be under the control of a certified applicator. Herbicides must be registered with the Environmental Protection Agency (EPA).
- The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.
- Compliance monitoring for vegetation improvement would help identify if additional actions were needed to comply with the *Clean Water Act*. In addition, continued monitoring of stream channel morphology (Rosgen survey data) will be essential to evaluate the impacts of increased livestock numbers on the affected watersheds.

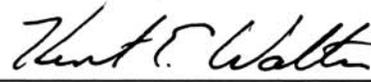
- Future monitoring, including photos, by the BLM rangeland management specialist assigned to this allotment shall occur to monitor riparian condition, including vegetation utilization at this small site.
- At the end of the 10 year cycle of this lease renewal an assessment of the condition/trend of the aspen stands should be completed to determine if modifications are needed to the lease.
- Spring developments must be maintained and all non-functional items (e.g. old water troughs, pipes, fence, etc...) must be removed and properly disposed of by the grazing lease holder. The BLM will obtain water rights for all springs located on public lands within the allotment boundaries. Range improvement projects (springs) will be monitored to evaluate the functionality of developments and assess water quality at spring sources.

**COMPLIANCE/MONITORING:** Refer to the Monitoring and Evaluation section within the proposed action of this document.

**NAME OF PREPARER:** Mary Taylor

**NAME OF ENVIRONMENTAL COORDINATOR:** Caroline Hollowed

**SIGNATURE OF AUTHORIZED OFFICIAL:**



Field Manager

**DATE SIGNED:**

02/20/06

**ATTACHMENTS:** Map of Thornburgh allotment 06802.

# Thornburgh Allotment 06802

