Environmental Assessment

Vass Allotment No. 00608

Livestock Grazing Permit Renewal

Location:
Township 43 N.
Range 99 W.
Section(s) 5,6,7

Applicant:
William Murdoch

March, 2010

The BLM manages more land – 253 million acres – than any other Federal agency. This land, known as the National System of Public Lands, is primarily located in 12 Western States, including Alaska. The Bureau, with a budget of about $1 billion, also administers 700 million acres of sub-surface mineral estate throughout the nation. The BLM's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

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1.0 INTRODUCTION

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of renewing/transferring the grazing permits on the Vass Allotment. This EA is a site-specific analysis of potential impacts that could result with the implementation of the analyzed alternatives. The EA assists the BLM in planning and ensuring determination as to whether any "significant" impacts could result from the analyzed actions. An EA provides evidence for determining whether an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI) should be prepared. If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a "Finding of No Significant Impact" (FONSI) and Decision Record (DR) may be signed for the EA approving the selected alternative.

1.1 Conformance with Applicable Land Use Plan

This action is subject to the following land use plan:

Name of Plan: Grass Creek Resource Management Plan (RMP)
Date Approved: September, 1998

Remarks: The Grass Creek RMP established the following Management Objective for Livestock Grazing Management:

"Improve forage production and range condition to provide a sustainable resource base for livestock grazing while improving wildlife habitat, watershed protection, and forage for wild horses." [Page 13]

Specific livestock grazing management actions from the Grass Creek RMP, which apply to this proposed action include,

"The amounts, kinds, and seasons of livestock grazing use will continue to be authorized until monitoring indicates a grazing use adjustment is necessary, or an environmental assessment indicates that a permittee's application to change grazing use is appropriate." [Page 13]

And,

"Grazing strategies (including the timing of grazing) will be designed to accommodate the growth requirements of "desired" species within plant communities." [Page 14]

The RMP has been reviewed and it is determined that the proposed action conforms to the land use plan terms and conditions as required by Title 43 Code of Federal Regulations, part 1610.5.

1.2 Relationships to Statutes, Regulations, Policies, Plans or Other Environmental Analyses

This and other grazing related Environmental Assessments are being prepared in accordance with Washington Office (WO) Instruction Memoranda WO-IM-99-039 and 2000-022 as well as WY-IM-2000-20, which instruct all Bureau of Land Management (BLM) Field Offices to conduct National Environmental Policy Act (NEPA) review on grazing permit renewals. The primary regulations governing the analysis are 40 CFR 1500 (RE: The President's Council on Environmental Quality implementing regulations for procedural provisions of NEPA). The principal Bureau permitting regulations for livestock grazing are found in 43 CFR 4100. The principal statutes governing livestock grazing on public land are the Taylor Grazing Act of 1934, the Federal Land Policy and Management Act of 1976, and the Public Rangelands Improvement Act of 1978.

1.3 Regulatory Decisions

The Authorized Officer (AO) must determine whether or not to issue a grazing permit to the applicant(s). The applicant for the renewal or issuance of a new grazing permit or lease, and any affiliate, shall have a satisfactory record of performance and be in substantial compliance with the terms and conditions of the existing Federal grazing permit or lease for which a new permit is sought. The AO could decide not to issue a permit, or to remove the grazing preference from the RMP grazing base, if it would cause unnecessary or undue degradation to the public lands, if it would threaten to violate another Federal law, or if the applicant has an unsatisfactory record of performance or is not in compliance with the existing permit or lease. If the AO decides to remove the grazing preference from the RMP grazing base through an RMP revision, the potential effects of removal of the grazing preference would be analyzed during the RMP revision process.

The AO must identify specific terms and conditions that apply to the permit. Livestock grazing permits and leases shall contain terms and conditions appropriate to achieve management and resource condition objectives for the public lands. These grazing permits and leases shall specify the kind and number of livestock, the period(s) of use, the allotment(s) to be used, and the amount of use, in animal unit months, for every grazing permit or lease. The authorized use shall not exceed the livestock carrying capacity of the allotment. All permits and leases shall be made subject to cancellation, suspension, or modification for any violation of these regulations or any term or condition of the permit or lease (43 CFR 4130.3). The environmental assessment will be used to identify the appropriate terms and conditions that should be included with the renewed permit.

Finally, the AO must determine whether or not implementation of the selected alternative could result in significant impact to the human environment. If not, this determination would be documented in a Finding of No Significant Impact (FONSI). If the impacts could be significant, an environmental impact statement would be necessary.

1.4 Need and Purpose of Action

NEED: This action is needed to renew the grazing permit and to address grazing management/terms and conditions on the Vass Allotment.

PURPOSE: This action focuses on the environmental issues specific to livestock grazing management and renewing/transferring the term grazing permits associated with this allotment. The purpose of this action is to continue, modify, or cancel the current grazing management to promote healthy, sustainable rangeland ecosystems and to meet/continue to meet rangeland health standards.

The grazing permit is subject to renewal in accordance with the provisions of the Taylor Grazing Act, Federal Land Policy and Management Act, Public Rangelands Improvement Act, Administrative Procedures Act, Grass Creek Resource Management Plan/, and the grazing regulations 43 CFR Part 4100.

In order for livestock grazing to occur on public land, the livestock permittees must hold a valid grazing permit. The Code of Federal Regulations, 43 CFR 4130.2(a), states that "Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the Bureau of Land Management that are designated as available for livestock grazing through land use plans." The Grass Creek RMP has designated the allotment as available for livestock grazing. The above mentioned applicants control base property associated with a grazing preference on the allotment and have been determined to be qualified applicants.

2.0 DESCRIPTION OF ALTERNATIVES

The Alternatives were developed based upon issues identified though internal scoping as well as through cooperation with the permittee. The alternatives were developed to address the grazing impacts on public lands within the allotments, to consider the permittee's ranching resource goals and operations as well as provide the opportunity for specific comparisons on which the decision maker could base a decision.

2.1 Alternative 1- Issue Grazing Permits with Changes to Terms and Conditions

Alternative 1 is based upon the prior grazing permits. Under Alternative 1, a grazing permit would be issued to William Murdoch for 10 years as defined within his base property lease with Hugh Vass. The permit would authorize the same level of livestock grazing use as the previous grazing permit, with no change in livestock kind or permitted use period. A utilization stipulation would be added to the terms and conditions of the grazing permits. The grazing permits would authorize the following livestock grazing use:

Vass Allotment No. 00608	39 cattle	9/1-2/28	43% P.L.	100 AUMs

Terms and Conditions: Utilization of up to 50% of the current year's growth is allowed.

2.2 Alternative 2-Eliminate Livestock Grazing/Remove the Preference from the Grazing Base

Under Alternative 2, no livestock grazing would be permitted on the Vass Allotment. The previous grazing permits would be cancelled. The grazing preference for the allotment would be removed from the Grass Creek RMP grazing base.

3.0 AFFECTED ENVIRONMENT

3.1 General Setting

The Vass allotment is located in Hot Springs County approximately twenty-seven (27) miles northwest of Thermopolis, Wyoming. The Vass Allotment contains 693 acres of public land and 651 acres of private land. The nearest BLM maintained rain gauge is the 21 Creek rain gauge and the annual average is approximately 10" which would place the allotment at the upper end of the 5-9 inch or the lower end of the 10-14 inch precipitation zone. Elevation ranges from approximately 6,360' on the western edge of the allotment to 5,940' on the eastern edge of the allotment. There are no live water sources on the public lands of the allotment. The topography varies from steep hills and cliffs to large rolling flats dissected by ephemeral drainages.

The following climate description is provided by US Department of Agriculture, Natural Resources Conservation Service - Ecological Site Description, saline lowland range site (Site ID R032XY338WY, approved 2008). Annual precipitation ranges from 10-14 inches per year. The normal precipitation pattern shows the least amount of precipitation in December, January, and February, increasing to a peak during the latter part of May. Amounts decrease through June, July, and August and then increase some in September. Much of the moisture that falls in the latter part of the summer is lost by evaporation and much of the moisture that falls during the winter is lost by sublimation. Average snowfall exceeds 20 inches annually. Wide fluctuations may occur in yearly precipitation and result in more dry years than those with more than normal precipitation.

Temperatures show a wide range between summer and winter and between daily maximums and minimums, due to the high elevation and dry air, which permits rapid incoming and outgoing radiation. Cold air outbreaks from Canada in winter move rapidly from northwest to southeast and account for extreme minimum temperatures. Chinook winds may occur in winter and bring rapid rises in temperature. Extreme storms may occur during the winter, but most severely affect ranch operations during late winter and spring.

Winds are generally not strong as compared to the rest of the state. Daytime winds are generally stronger than nighttime and occasional strong storms may bring brief periods of high winds with gusts to more than 75 mph.

Growth of native cool-season plants begins about April 15 and continues to about July 15. Cool weather and moisture in September may produce some green up of cool season plants that will continue to late October.

Mean annual precipitation: 12.35 inches
Mean annual air temperature: 46.2 F (30.1 F Avg. Min. to 62.3 F Avg. Max.)

For detailed information visit the Natural Resources Conservation Service National Water and Climate Center at http://www.wcc.nrcs.usda.gov/ website. Other climate station(s) representative of this precipitation zone include" Grass Creek 1E", "Thermopolis", Thermopolis 25NW", "Buffalo Bill Dam" and "Black Mountain".

3.2 Hydrology/Riparian

This allotment is located in the North Fork of Owl Creek watershed Hydrologic Unit Code (HUC # 100800070203). The drainages are all unnamed tributaries to the North Fork of Owl Creek and flow in an eastern direction from the foothills of the Absoraka mountain range. The drainages on public land in the allotment have an ephemeral flow regime and flow in response precipitation events and snow melt runoff. The drainages flow primarily over Cretaceous age outcrops that consist of shales and also over Quaternary alluvium and colluvium deposits. According to aerial photos, there is one reservoir located in the NE ¼ Sec 6 of T 43N R 99 W that appeared to hold surface runoff as of the summer of 2006. Another reservoir located in the SE ¼ Sec 6 of T 43N R 99W that marginally holds water on an annual basis. There are no water wells that are located in the allotment. There are no riparian or wetlands that occur within the allotment.

3.3 Soils

Due to diverse geology and parent material, the soils in the Vass allotment are highly variable. The presence of steep badland hills and a well defined ephemeral drainage system have created a drainage system where high runoff events are common. Badland landscapes consisting of shale outcrop and shallow soils (<20inches deep) extend through the center of the allotment and dominate the northeast corner. Alluvial fans and low terraces dominate the landscape north of the badland ridge extending across the center of the allotment. The soils on this landscape setting are deep with slopes ranging from 0 to 8 percent. They are moderately well drained to well drained (seasonal water table to within 5 feet of the surface) and as a result, greasewood common in this setting. Moving south of the badland ridge to Owl Creek, the soils are generally shallow to moderately deep (10 – 40 inches) and well drained. The slopes are steeper ranging from 3 to 60 percent. Many of these

soils are characterized by their reddish hues. The soils along the Owl Creek floodplain are deep and well drained with slopes of 0 to 6 percent.

The dominant Ecological sites are listed below:
Shallow Loamy 10-14 in. precipitation zone (pz) - R032XY362WY
Saline Lowland 10-14 in. pz. - R032XY338WY
Loamy 10-14 in. pz. - R032XY322WY
Sandy 10-14 in. pz. - R032XY350WY
Clayey 10-14 in. pz. - R032XY304WY

3.4 Vegetation
Key species observed within the allotment are bluebunch wheatgrass and needleandthread grass. Other vegetation included are green needlegrass, sedges, fringed sagewort, winterfat, june grass, indian ricegrass, prickly pear cactus, sagebrush, saltbush, greasewood, western wheatgrass, slender wheatgrass, biological soil crusts, lichens, sandberg bluegrass, broom snakeweed, sixweeks fescue, blue grama, and various forbs. While this listing of vegetation is far from being an "all inclusive" listing of the vegetation of the allotment it does provide a representation of major vegetative species encountered throughout the allotment.

3.4.1 Invasive Species
To date, the only invasive vegetation located on the allotment is Bromus tectorum, which was discovered in February of 2010. The infestation was discovered during an allotment inspection and therefore a treatment for the site has not yet been prescribed. No other species have been inventoried on the allotment.

3.5 Range/Grazing
The Vass Allotment is utilized by only one permittee. All Animal Unit Months (AUMs) are permitted for cattle grazing. As currently permitted, all of the permitted AUMs are utilized post seed ripe-the fall and winter months. The management of the Vass Allotment is classified as "Custodial". Low intensity monitoring, an allotment inspection, of the allotment is required to occur at least every 5 years (Final EIS, Grass Creek Panning Area Resource Management Plan, Revised Appendix 3, Planning Area Monitoring Plan Introduction, Page 250).

In 1999 the allotment was assessed for conformance with the Wyoming Rangeland Standards and Guidelines. The resource conditions –the standards - of the public rangelands were met. Management of the allotment has not changed since the assessment. Allotment inspections completed in 2006 and 2010 indicate that the allotment uplands have maintained a vegetative component comprised of diverse and desirable native species, and that the soils are stable. Vegetative production and vigor of key forage species is good and no apparent problems with livestock grazing management on the allotment were noted.

The vegetation observed indicates that the majority of the uplands of the allotment are primarily comprised of a Perennial Grass/Mixed Shrub Plant Community state which is considered to be resistant to change and well adapted to grazing.

There are no pasture fences within the allotment therefore livestock movements are dictated by terrain, weather, herding, livestock kind, available feed sources, and available water sources.

3.6 Wildlife
This allotment provides habitat for several big game species, as well as many other non game and special status wildlife species throughout the year. Topographically the allotment can be described in halves with the northern BLM half being more open and rolling, and the southern private half being more broken with several shallow ridges paralleling Owl Creek to the south, (see Map 2). The predominant vegetation is a mix of blue bunch wheatgrass, green needle, needle and thread, and Wyoming sagebrush, with sagebrush communities being fairly scattered, particularly on the BLM portions of the allotment. The southern 3/4ths of this allotment is mapped as crucial winter range for mule deer. Along the Owl Creek riparian corridor at the southern end of the allotment, white-tail deer are common throughout the year. Antelope are also common in the northern half of the allotment, particularly in the winter when larger wintering concentrations. There are numerous other species like the coyote, cottontail rabbit, white-tail jackrabbit, badger, bobcat, and a variety of passerines, raptors, small mammals and predator species that inhabit this allotment throughout the year.

3.6.1 Threatened or Endangered Species
The northern or BLM portion of the allotment does contain small sagebrush communities interspersed with saline uplands, and a small colony of white-tailed prairie dogs. This prairie dog colony along with the neighboring rangelands likely provide foraging habitat for the several raptor species including the Ferruginous hawk. The sagebrush habitats within the allotment are providing some wintering habitat, and could potentially be providing some nesting and early brood rearing habitats for sage-grouse as well. A field inventory for wildlife sign and use along with a 300 ft. sagebrush canopy cover transect yielded

light to moderate winter use through winter pellet groups observed, and a 23.9% sagebrush canopy cover, which for Wyoming is high for what is anticipated for sage-grouse wintering habitats at $\leq$ 10%, but more suitable for nesting at 15-30%. The sagebrush canopy cover transect was located within what appeared to be the heaviest sagebrush canopy cover available in the BLM portion of the allotment, (see Map 2). The closest active leks are approximately 1.5 miles to the north and 2.5 miles to the west. These same sagebrush communities likely do provide some breeding; nesting and foraging habitat for other sagebrush obligate bird species like the sage thrasher, Brewer's sparrow and loggerhead shrike. Although none of these species have been documented through formal inventory efforts, these species are common residents of the sagebrush communities in the area, and along with white-tailed prairie dog and Ferruginous hawk, are all BLM sensitive species that likely occur within this allotment. And in the absence of any site-specific management plans or conservation strategies for these sensitive species, the Land Health Standards provide for the management of their habitats. There are no other known threatened, endangered, or BLM sensitive wildlife species within this allotment.

3.7 Non-renewable Resources

No wells have been drilled within the allotment boundary. The area is open to leasing; however, the area is not currently leased. There are no proposed or pending oil and gas actions within this allotment. No further analysis is necessary.

3.8 Recreation/Visual Resources

The allotment is located within the Extensive Recreation Management Area (ERMA) where recreation and associated resources are recognized, but activities and resources are not the management priority. Recreational management is custodial in nature so as to minimize public health and safety, use and user conflicts, and to address resource protection. The natural recreational resources, such as scenic quality, semi-primitive settings, and wildlife, are abundant within the allotment, but legal public access into the area is limited, and therefore recreational uses are likely limited. There is no legal public access from the south due to the surrounding private lands with any easements. From the north, one may be able to access the allotment on a faint two track that is not mapped as going into the allotment; therefore access within the allotment would be limited to foot/horse travel. Recreational use for this area consists of hiking, site seeing, hunting, and general dispersed recreation. Comprehensive Travel and Transportation Management (CTTM) manages the allotment as motorized vehicle use limited to existing roads and trails. The allotment is located within a Class III and IV Visual resource Management Area (GCRA RMP FINAL ROD, Map 9). Class III objectives are to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. Class IV objectives are to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

3.9 Cultural Resources

The Vass Allotment #00608 contains no known cultural resource sites. Other cultural resource studies indicate that the general area of the allotment has been occupied for at least 12,000 years and cultural resource sites should be anticipated within the allotment. In accordance with the Wyoming State Protocol at Appendix B.27, renewal of grazing permits is exempt from class III inventory.

4.0 Environmental Consequences

4.1 Alternative 1- Issue Grazing Permits with Changes to Terms and Conditions

4.1.1 Hydrology/Riparian

The current watershed conditions in the allotment would be maintained in their current state. The health of the watershed would depend on the amount of precipitation received during the year, ground cover, litter, and canopy provided by vegetation. The channel conditions would maintain their current conditions with occasional use of livestock during the permitted time of year and receive use by wildlife during times of year when surface water is available.

4.1.2 Soils

The proposed action is not anticipated to have significant impacts to the soil resource. The proposed utilizations limits would result in an increase in basal and litter cover. However in this landscape setting, high runoff will continue following intense storm events.

4.1.3 Vegetation

A portion of the annual forage production would be removed by grazing livestock. One hundred percent of the forage removal would occur post seed ripe. The stocking rate on the allotment would be 6.9 acres per animal unit month (AUM).

The Ecological Site Descriptions developed specifically for the Big Horn Basin suggest a stocking rate of 5.8 A/AUM for a Shallow Loamy, Perennial Grass/Mixed Shrub Community (10-14" zone, Natural Resources Conservation Service –Dept. of Agriculture, 2008). The stocking rate suggested for a Alkali Sacaton/Inland Saltgrass/Greasewood Community is 2.5 A/AUM (5-9" zone, Natural Resources Conservation Service –Dept. of Agriculture, 2008).

The prescribed grazing under this alternative would likely maintain or improve the upland rangeland health conditions by providing a stocking rate that is appropriate throughout the year in addition to permitting livestock use to occur during the non-growing season use. The rangeland plants on public land will initiate growth, produce vegetative matter, produce a viable seed, and replenish energy reserves (complete the annual growth cycle May through June) without any domestic grazing pressure. Grazing post seed ripe would occur at a time that would be least likely to cause an interruption to the plants physiological or morphological processes. After seed ripe there is little or no active plant growth that would occur because the plants would have completed the annual cycle of producing seed and the climatic conditions are often unfavorable for further substantial plant growth after July.

The utilization limits within the RMP varies and are as stated in Table 3-6 as follows and as pertaining to this allotment:

Average Annual Precipitation	Appropriate Utilization for Key Forage Key Areas(1) (percentage)	Vegetative Community	Start of Spring Growth/Start of Dormancy	Appropriate Utilization for Plants Grazed Exclusively During the Dormant Season (percentage)
5-9"	*25-35*	*Salt Desert Shrub and Salt Bottom*	*April 11/October 15*	*60*
10-14"	*30-50*	*Foothills-Mountain-Grassland/Shrub*	*May 1/October 15*	*60*

(1) Ranges in good condition or grazed partially during the dormant season can withstand the higher utilization level. Those in poor condition or those grazed during the active plant growth should receive the lower utilization limit.

In addition to the guidance provided in Table 3-6, the Grass Creek RMP states within the Record of Decision (ROD) at page 14 that "In Salt Desert Shrub and Salt Bottom Plant Communities that grazed during the growing season, grazing strategies will be designed to allow a combined forage utilization of 25-35% of the current year's growth." It also states that "In other plant communities that are grazed during the growing season grazing strategies will be designed to allow a combined forage utilization of 30 to 50 percent of the current year's growth." Revised Table 2 (at page 43 of the Final EIS, Vol. 1) also states the same. Utilization, in accordance with the ROD at page 78, will be collected on key forage species. In this allotment the key species would be found on the Shallow loamy range sites (Foothills-Mountain-Grassland/Shrub Community).

Monitoring of the allotment has shown that the range conditions are meeting the rangeland health standards and the recent monitoring indicates that the majority of the uplands within the allotment exhibit vegetation that would represent a Perennial Grass/Mixed Shrub Plant Community state. This community state is at a stage just prior to achieving Historic Climax Plant Community (HCPC, NRCS, Ecological Site Description, Shallow Loamy 10-14 inch precipitation zone).There is a vegetative component that also represents an Alkali Sacaton/Inland Saltgrass/Greasewood Plant Community. This community is primarily located immediately along the ephemeral drainage that runs through the allotment from northwest to southeast. This community state is at a stage just prior to achieving Historic Climax Plant Community (HCPC, NRCS, Ecological Site Description, Saline Lowland, 5-9 inch precipitation zone).

The critical growing season for cool season grasses (key species) is May and June. Under this alternative there would be no grazing during the critical growing season, 25% of all permitted use would occur during the summer and fall - after the key species have completed a reproductive cycle but are not yet completely dormant. The remaining 75% of permitted use would occur after October 15th - during dormancy.

Based upon the ROD, Table 2, Table 3-6, the range conditions, the fact that utilization is to be done on key species, and the fact that 100 percent of all permitted AUMS will be utilized post seed ripe a utilization limit of up to 50% would be implemented on the grazing permits.

4.1.3(a) Invasive Species

Grazing as described under this alternative would continue to ensure that native vegetation communities are healthy and intact. With a healthy native herbaceous community, such as that found on this allotment, there is an inherent amount of protection from invading weeds. In contrast, areas that are disturbed to the point of having exposed mineral soils present an opportunity for non-native encroachment. Areas that are commonly disturbed to a bare ground situation are the main roadways and manmade water sites. These areas may not necessarily be invaded by noxious or invasive non-native species however; given the opportunistic characteristics of many invasive species, the opportunity for such an event to occur is greater. As has been done in the past and in cooperation with local partners, the area would continue to be monitored for the

presence of noxious weeds, as per the Bighorn Basin Weed Management Plan. Treatment methods for any existing or new noxious weed infestations located would be evaluated on a site specific basis.

4.1.4 Wildlife
Based on field inventories along with past, present and proposed livestock use levels, the prescribed livestock grazing proposed in this alternative should provide for the sustainability of wildlife habitats identified above in the affected environment, throughout all seasons of the year. Because there is little dietary overlap between cattle and wintering mule deer or antelope, the cattle grazing proposed in this alternative would have little direct effect on wintering mule deer or antelope use of the allotment. The light to moderate livestock use levels observed and anticipated from the grazing prescribed in this alternative, would in average years, allow for adequate amounts of herbaceous residue and litter necessary for the sagebrush obligate species nesting and brood rearing habitat needs, as well as for the long term maintenance of this plant community and all other communities providing wildlife habitat. The wildlife habitats within the rangelands evaluated for this allotment are providing forage and cover needs, and are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to these habitats.

4.1.5 Recreation/Visual Resources
Impacts to recreation under this alternative would be expected to be minimal and would not limit the recreational activities which may occur in the area. The presence of livestock may interfere with goals of some visiting the area which may displace those visitors to alternative areas. Potential visual intrusions may include introducing contrasting elements of line, form, and color against the surrounding natural elements created from livestock trails, congregating points, and from necessary tasks performed using motorized vehicles. These perturbations are localized and rather unnoticeable to the casual observer. The presence of livestock would not have a consequence on the visual resource of the area as a whole and are therefore well within the Class III and IV management objectives.

4.1.6 Cultural Resources
There is a direct relationship between the rangeland health and potential effects to cultural resources. Provided rangelands remain in satisfactory condition and are not overgrazed, the potential effects to cultural resources from grazing lease renewals are expected to be minimal. Rangeland deterioration could constitute a viable threat to cultural properties. Alternative 1 is not expected to affect cultural resources given the fact that the rangeland health standards were met in 1999, the recent rangeland monitoring results are acceptable, and total AUMs are constant. Affects to cultural resources are most probable in high use areas such as around water wells or bottlenecks where livestock congregate. Many of these facilities have been in place prior to the 1966 National Historic Preservation Act, thus are considered an existing disturbance. Per Section 3-D of the Wyoming State Protocol Agreement between the BLM and the State Historic Preservation Officer (SHPO), after a determination by cultural resource specialists, undertakings within previously disturbed areas are generally authorized to proceed without additional class III inventory. Away from livestock focal points, surface disturbance is minimal and impacts to cultural resources are negligible. Any and all future range development projects within the allotment will comply with the section 106 process, are subject to relevant cultural investigations prior to permit issuance, and will be analyzed under a separate and site specific EA. Because livestock grazing is a dynamic ongoing process, cultural resource specialists, in conjunction with BLM range management and the leasee, will randomly monitor and inspect heavy use areas over the life of the lease to ensure cultural resources are not being adversely impacted. Any adverse effects discovered will be mitigated accordingly at the discretion of BLM in consultation with the Wyoming SHPO.

4.2 Alternative 2 - Eliminate Livestock Grazing/Remove the Preference from the Grazing Base

4.2.1 Hydrology-Riparian/Vegetation
Under this alternative, rangeland uplands as well as watershed conditions may improve at a faster rate than under the previous alternatives. The most rapid rate of improvement in ecological condition may occur, and domestic livestock grazing would no longer affect the resource conditions of the public rangelands. In the absence of livestock grazing, no herbaceous material would be removed by livestock. Plant growth would be optimized, and all plant material would accumulate as litter. Surface litter provides for raindrop interception, slows runoff and thereby increases infiltration, reducing surface temperatures and evaporation.

4.2.2 Soils
Under this alternative herbaceous material would not be removed by livestock. Herbaceous cover and litter cover would increase resulting in further protection of the soil from the erosive forces of raindrop impact and overland flow.

4.2.3 Wildlife
Livestock grazing generally occurs with some variable influence to ungulate wildlife populations, so the elimination of livestock grazing could benefit these species. That being said, it is worth noting that all of the wildlife habitats and species described above in the affected environment section have evolved with some degree of an ungulate grazing regime

disturbance. In the absence of livestock grazing, any competition for forage between livestock and wildlife would be eliminated, and the public land within the allotments would be available for exclusive use by wildlife, without disturbance by the presence of livestock and by livestock management activities.

4.2.4 Recreation/Visual Resources

Recreational and visual resources of the area would not be adversely affected by selection of this alternative. The potential for new roads or surface disturbance to be created by motorized livestock grazing management activities would not exist. In the absence of livestock grazing, healthy rangeland conditions would be maintained within the allotment. Maintaining healthy rangelands is the basis for maintaining an overall healthy landscape that provides a variety of multiple use opportunities for recreational users of the public lands.

4.2.5 Cultural Resources

The No Grazing alternative may result in an adverse effect to cultural resources by eliminating one of the primary historic uses of the area, livestock grazing. The actions necessary to fully evaluate the cultural resources, assess the nature of any adverse impacts, and determine appropriate mitigation measures would be taken during the required RMP amendment process. The mitigation measures may have to be determined in consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation.

ALTERNATIVE 3 CONCLUSIONS

The Grass Creek RMP states as a resource management objective, "Improve forage production and range condition to provide a sustainable resource base for livestock grazing while improving wildlife habitat, watershed protection, and for age for wild horses." The RMP further states, as a management action, "The amounts, kinds, and seasons of livestock grazing use will continue to be authorized until monitoring indicates a grazing use adjustment is necessary, or an environmental assessment indicates that a permittee's application to change grazing use is appropriate." Denying the renewal/transfer of this grazing permit would not be in conformance with the Grass Creek RMP and would require an RMP revision to remove the grazing preference from the RMP grazing base. No data is available to rationally support the selection of this alternative at this time.

5.0 Cumulative Impact Analysis

The lands involved in the application have historically been used for livestock grazing, wildlife habitat, and occasional recreational use. The incremental consequences identified within the alternatives, when added to other past, present, and reasonably foreseeable future actions would not significantly contribute to any Cumulative Impacts.

There is no other known existing or proposed uses or activities on or near the allotments with the potential to cause cumulative impacts with livestock grazing.

6.0 EA Preparation/Consultations

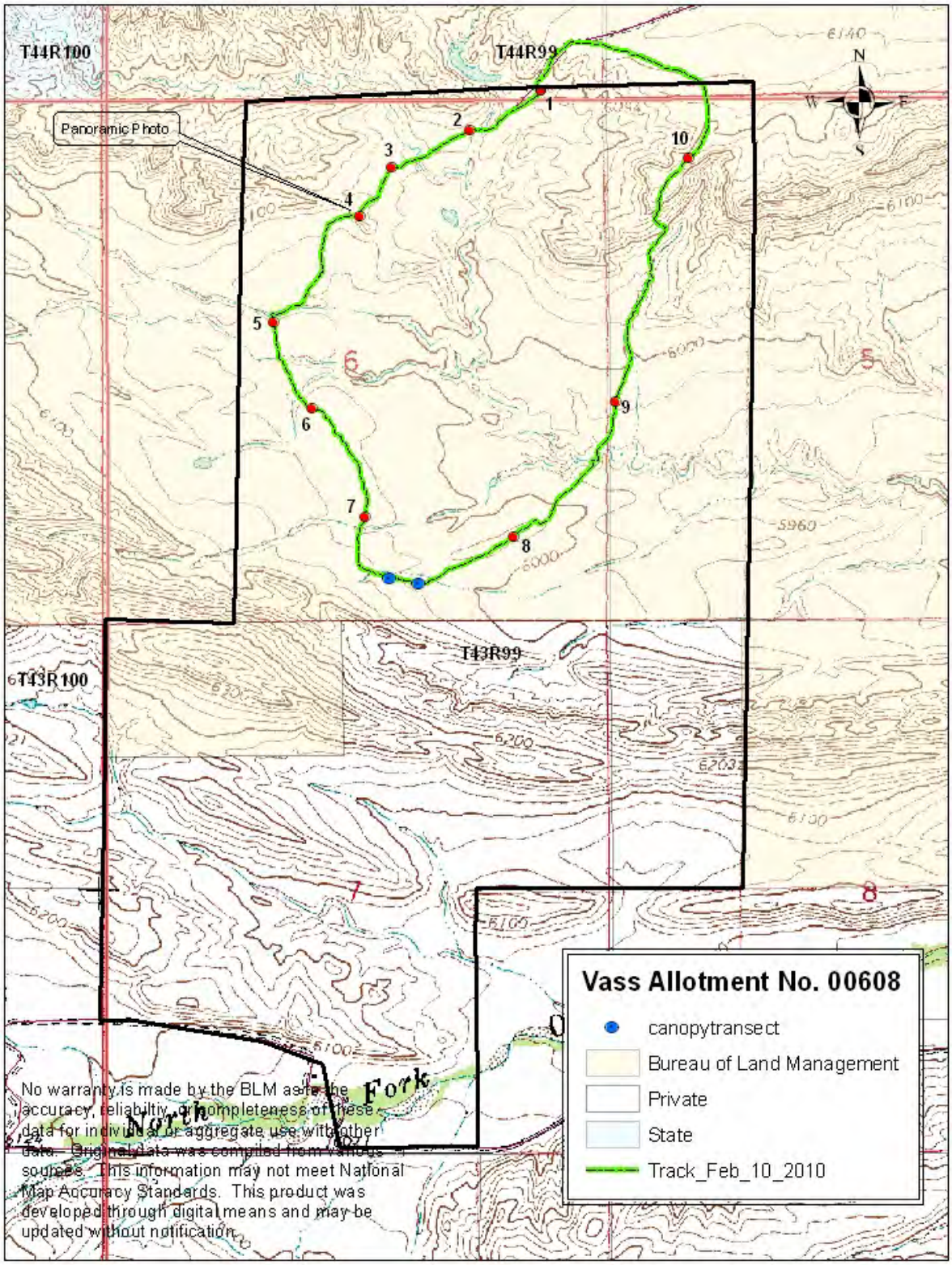
Other Persons/Agencies Consulted: William Murdoch, Permittee

If the Authorized Officer determines that an alternative is to be implemented, the BLM will issue a proposed decision in accordance with 43 CFR 4160, furthering the opportunity for any affected party to make comment, provide data, or make protest prior to the Decision becoming Final.

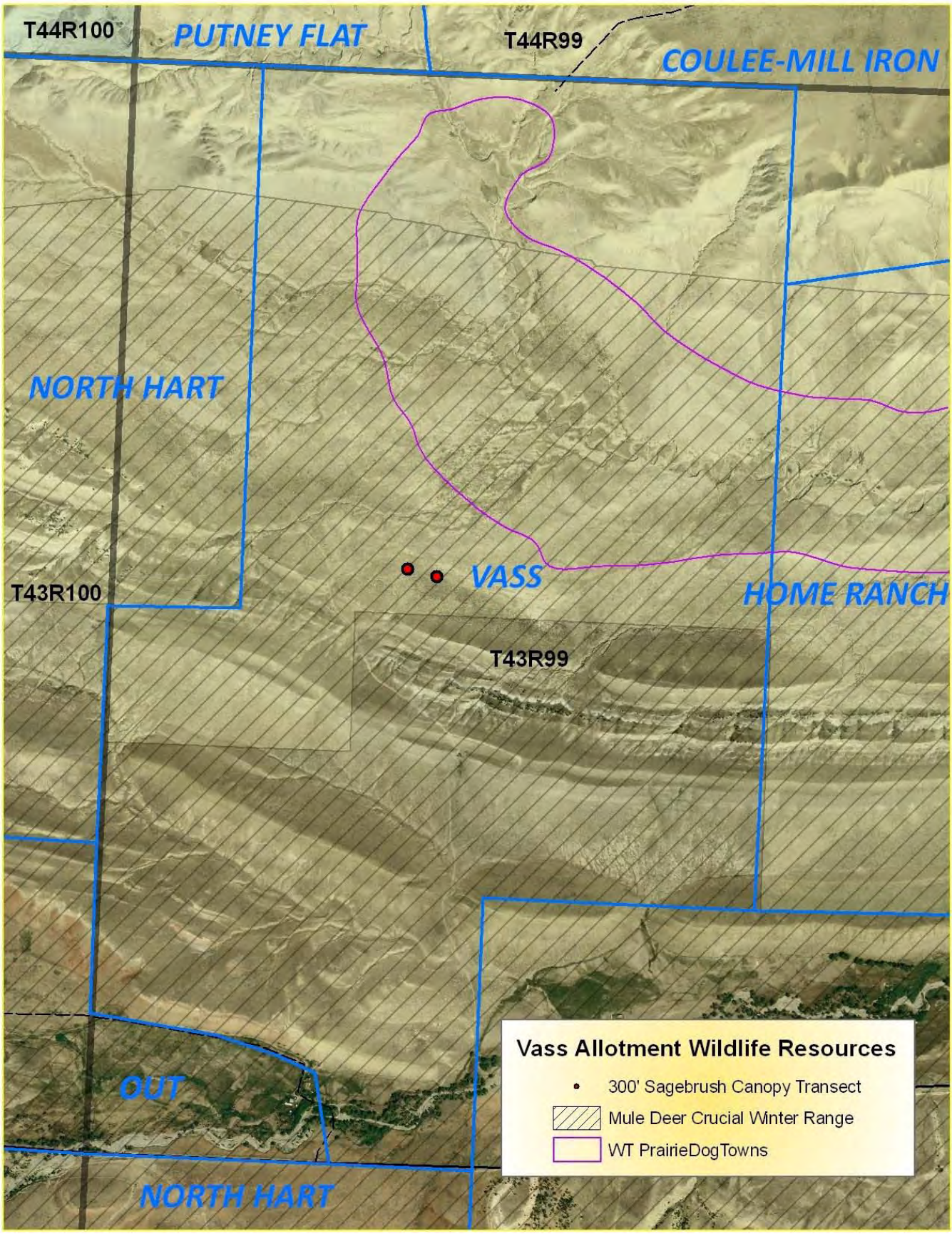
Reviewers: Karen Hepp, Rangeland Management Specialist, BLM
Tim Stephens, Wildlife Biologist, BLM
Marrit Bovee, Archaeologist, BLM
Jared Dalebout, Hydrologist, BLM
Paul Rau, Recreation, BLM
Steve Kiracofe, NRS-Soils, BLM
Holly Elliott, NRS-Oil and Gas, BLM
Jon Tietmeyer, Rangeland Management Specialist, BLM

Preparer(s): John Elliott, Rangeland Management Specialist, BLM
Date: March 30, 2010

Map 1: Allotment Map



Map 2: Wildlife Habitat Areas



ONSITE PHOTOS


Vass Allotment No. 00608
Feb. 10, 2010
T44 R99 Section 31 Point 1 on map
Looking SW


Vass Allotment No. 00608
Feb. 10, 2010
T43 R99 Section 6, Point 2 on map
Looking NW, Sugarloaf on horizon


Vass Allotment No. 00608 2/10/10
T43 R99 Section 6, Point 3
Looking SE


Vass Allotment No. 00608 2/10/10
T43 R99 Section 6, Point 5 on map
Looking WNW


Vass Allotment No. 00608 2/10/10
T43 R99 Section 6, Point 5 on map
Looking East


Vass Allotment No. 00608 2/10/10
T43 R99 Section 6
Point 6 on map
Looking East


Vass Allotment No. 00608 2/10/10
T43 R99 Section 6, Point 7 on map
Looking NW


Vass Allotment No. 00608 2/10/10
T43 R99 Section 6, Canopy Transect
Looking SE from western end of transect
--see map


Vass Allotment No. 00608 2/10/10
T43 R99 Section 6, Point 8 on map
Looking East


Vass Allotment No. 00608 2/10/10
T43 R99 Section 5, Point 10 on map
Looking NE