

**U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641**

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-110-2010-0069-EA

PROJECT NAME: Artesia Allotment Pasture 8 (06308) Transfer and Permit Issuance

LEGAL DESCRIPTION:

Township	Range	Sections, Lots, or Portions Thereof
3 North	102 West	2, 3, 4
4 North	102 West	25, 26, 27, 28, 29, 33, 34, 35, 36
4 North	101 West	30

APPLICANT: Red Wash LLC

ISSUES AND CONCERNS (optional): None.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: This action involves what is currently Pasture 8 of the Artesia allotment (06308). The Artesia allotment is a 49,000 acre allotment that is currently permitted for sheep use in the winter from December 1st to April 1st by Morapos Sheep Company. The majority of the allotment is south of highway 40 with the exception of Pasture 8. Pasture 8 of the allotment is north of highway 40 and consists of 6,562 (4,365 BLM) acres. The current permittee has taken non-use on this Pasture of the allotment for eight years because access to much of the Pasture is blocked by fenced private lands, and it is inconvenient to move sheep across the highway for a few days to use what little of the Pasture can be accessed and then move them back across to the rest of the allotment.

As a result, Red Wash Ranch LLC has made application for the grazing preference on Pasture eight of the Artesia allotment. The applicant wishes to change the class of livestock from sheep to cattle and use it for spring grazing.

Proposed Action (Alternative A): The approval of a transfer of grazing preference and change of livestock class and permit issuance for a period of 10 years as outlined below. Approval of this authorization would create a new allotment within White River Field Office (WRFO) with four pastures. The grazing schedule would be on a two year rotation to help satisfy

rest/deferment requirements within the White River Record of Decision/Resource Management Plan (ROD/RMP). Currently the Artesia allotment is categorized as an improve allotment, and this designation would carry over to the new allotment should this action be approved.

The plan for this allotment is to have utilization levels between 20-40 percent. This is below what is outlined in the White River ROD/RMP which targets utilization from 40-60 percent. The combination of light use combined with the four pasture rotation outlined below will maintain health of the land on areas currently meeting land health standards while providing an opportunity for livestock to use cheatgrass (*Bromus tectorum*) early in the season on areas that are not meeting land health standards.

Table 1: Proposed Two Year Grazing Schedule for the Proposed Allotment

ODD YEAR GRAZING SCHEDULE ON THE PROPOSED ALLOTMENT									
Allotment		Livestock		Grazing Period					
Name	Pasture	Number	Kind	Begin	End	% PL	Type Use	Total AUMs	BLM AUMs
Cooper	Highway	200	Cattle	4/1	4/17	60	Active	112	67
Cooper	Moosehead	200	Cattle	4/18	5/2	64	Active	99	63
Cooper	State	200	Cattle	5/3	5/12	12	Active	63	8
Cooper	Red Wash	200	Cattle	5/13	5/19	85	Active	46	39

EVEN YEAR GRAZING SCHEDULE ON THE PROPOSED ALLOTMENT									
Allotment		Livestock		Grazing Period					
Name	Pasture	Number	Kind	Begin	End	%PL	Type Use	Total AUMs	BLM AUMs
Cooper	State	200	Cattle	4/1	4/17	60	Active	112	67
Cooper	Highway	200	Cattle	4/18	5/2	64	Active	99	63
Cooper	Moosehead	200	Cattle	5/3	5/12	12	Active	66	8
Cooper	Red Wash	200	Cattle	5/13	5/19	85	Active	46	39

Plan of Operation

Each spring, 30 days prior to turnout within the allotment, the permittee will submit a plan of operation (grazing application) for the grazing year for the BLM to approve. The plan of operation will include anticipated turnout dates, number of animals, and the sequence the Pastures will be used for the year.

Limits of Flexibility

Livestock turnout will not be approved before April 1st each year, but may be approved as late as May 1st. If livestock is turned out before April 15th one year, it will not be turned out before April 20th the next year. This will aid in meeting rest/deferment requirements of the White River ROD/RMP. The permittee will also be allowed to adjust animal numbers +/-10 percent from the annual plan of operation provided the total AUM's do not exceed the AUMs scheduled.

Monitoring and Evaluation

Currently no long-term trend plots have been established within this Pasture. If approved, 4 long-term trend plots (1 per Pasture) will be established within the new allotment. These monitoring plots will consist of a permanent repeatable photo plot and a 100 meter daubenmire transect. Each monitoring plot will be scheduled to be read every 4-5 years.

Utilization studies will also be conducted following grazing within each Pasture to ensure targets are being met (20-40 percent) as described in the rangeland management section. The permittee is also going to participate in monitoring by establishing permanent repeatable photo plots within the allotment.

No Action Alternative Continuation of Current Management (Alternative B): Under the no action alternative, the grazing preference for Pasture eight of the Artesia allotment would not be transferred to Red Wash Ranch LLC, and this Pasture would remain a part of the Artesia allotment approved for winter sheep use. Use for the allotment under this alternative is outlined in the table below.

Table 2: Existing Grazing Schedule for the Artesia Allotment

ALLOTMENT		LIVESTOCK		GRAZING PERIOD				
Number	Name	Number	Kind	Begin	End	percent PL	Type Use	AUMs
06308	Artesia	4321	Sheep	12/1	2/28	100	Active	2557
06308	Artesia	4182	Sheep	3/1	4/1	100	Active	880

No Grazing Alternative (Alternative C): The no grazing alternative would eliminate all grazing from this Pasture. This action would require the cancellation of the current grazing authorization for Morapos Sheep Company and would not authorize Red Wash Ranch LLC to graze cattle.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None.

PURPOSE & NEED FOR THE ACTION: The purpose of the Proposed Action is transfer the grazing preference to a qualified grazing applicant and issue a permit to graze livestock on the grazing allotment described above managed by the BLM. The need for the action is established by the BLM’s responsibility under the Taylor Grazing Act (1967), as amended, to provide for the orderly use of vacant rangelands for livestock grazing, and to stop injury to public grazing lands by preventing overgrazing and soil deterioration that the livestock industry depends on.

Decision to be Made: The BLM will determine whether or not to transfer the grazing preference to the applicant and issue a grazing permit, and if so, under what terms and conditions.

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: 2-22 and 2-23

Decision Language: “Maintain or enhance healthy rangeland vegetative 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.”

“With minor exceptions, livestock grazing will be managed as described in the 1981 Rangeland Program Summary (RPS).”

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. These findings are located in specific elements listed below:

Table 3: Table of Acres Meeting or Not Meeting Standards for Public Land Health

STANDARDS FOR PUBLIC LAND HEALTH									
Standard	Current Situation			With Alternative A		With Alternative B		With Alternative C	
	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Causative Factors	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Acres Achieving or Moving Towards Achieving	Acres Not Achieving
#1-Upland Soils									
Artesia (06308)	4,077	288	Historic grazing practices.	4,077	288	4,077	288	4,077	288
#2-Riparian Systems (Miles)									
Artesia (06308)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
#3-Plant Communities									

STANDARDS FOR PUBLIC LAND HEALTH									
Standard	Current Situation			With Alternative A		With Alternative B		With Alternative C	
	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Causative Factors	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Acres Achieving or Moving Towards Achieving	Acres Not Achieving
Artesia (06308)	4,077	288	Historic grazing practices.	4,077	288	4,077	288	4,077	288
#3-Animal Communities									
Artesia (06308)	4,077	288	Historic grazing practices.	4,077	288	4,077	288	4,077	288
#4-Special Status, T&E Species									
Artesia (06308)	4,077	288	Historic grazing practices.	4,077	288	4,077	288	4,077	288
#5-Water Quality (stream miles)									
Artesia (06308)	0	0	N/A	0	0	0	0	0	0

NATURAL, BIOLOGICAL, AND CULTURAL RESOURCES

AIR QUALITY

Affected Environment: The Proposed Action would create a new grazing allotment within the current Artesia allotment and change the livestock use from sheep to cattle. The new allotment is located in rural northwest Colorado in the White River Basin and less than 10 miles south of Dinosaur National Park. Dinosaur National Park is a Class II airshed with prevention of significant deterioration (PSD) thresholds for sulfur oxides and visibility. No other special designations or non-attainment areas occur within 10 miles of the Proposed Action. Non-attainment areas are areas designated by U.S. Environmental Protection Agency (EPA) as having air pollution levels that persistently exceed the national ambient air quality (NAAQ) standards. Special designation areas such as Dinosaur National Park and non-attainment areas may require special consideration from the air quality regulatory agencies of Colorado Department of Public Health and Environment (CDPHE) and EPA. General conformity regulations ensure that federal activities do not cause or contribute to new violation of NAAQ standards; that actions do not cause additional or worsen existing violations of the NAAQ standards; and that attainment of these standards is not delayed by federal actions in non-attainment areas.

The Proposed Action is in the White River Basin where industrial facilities include coal mines, soda ash mines, natural gas processing plants, and power plants. Due to these industrial uses, increased population, and oil and gas development in this region, emissions of air pollutants in the White River Basin due to exhaust emissions and dust (particulate matter) are likely to

increase into the future. However, with the exception of ozone, overall air quality conditions in the White River Basin are likely to continue to be in attainment of NAAQ standards, due to effective atmospheric dispersion conditions and limited transport of air pollutants from outside the area. Ozone is a secondary pollutant, formed photochemically (by the sun) by combining volatile organic compounds (VOCs) and NO_x emissions. Ozone is measured at Dinosaur National Park and the Federal Reference air quality monitoring station support by the BLM in Rangely, Colorado.

Environmental Consequences of the Proposed Action (Alternative A): The environmental consequences to air quality from Alternative A would include the periodic and local production of dust due to cattle trailing to and from forage and water sources, and when moving cattle to new Pastures. Where vegetation is removed due to grazing, there is a higher potential for aerosolizing soil particles especially in the Highway Pasture where there is potential to have high winds during portions of the year. Dust levels may be noticeable locally and especially during hotter and drier times of the year. The Colorado Air Pollution Control Division (APCD) estimates the maximum PM₁₀ levels (24-hour average) in rural portions of western Colorado to be near 50 micrograms per cubic meter (µg/m³). Livestock grazing does not create NO_x emissions, sulfur oxide emissions, or VOCs; therefore it will not contribute ozone formation or PSD thresholds. Some emissions will occur from pumping water from wells and vehicles used to manage livestock, but these can be considered casual uses and are minimal compared to industrial emissions. The Proposed Action is not likely to exceed the western Colorado dust standard of 50 µg/m³. The Proposed Action is unlikely to result in an exceedance of NAAQ standards, and is likely to comply with applicable PSD increments.

Environmental Consequences of the Continuation of Current Management (Alternative B): This alternative would continue the current grazing authorization for sheep and would not create a new allotment for cattle grazing. Sheep use is currently authorized from December through April and would be during a cooler wetter period of the year than the grazing in Alternative A. Dust production would not be expected from trailing due to grazing during portions of the year that are cooler and wetter. Vegetation loss due to grazing would be expected and would still contribute to fugitive dust production from exposed soils due to high winds that are common in the highway Pasture. The No Action Alternative is not likely to exceed the western Colorado dust standard of 50 µg/m³ and it is unlikely to result in an exceedance of NAAQ standards, and is likely to comply with applicable PSD increments.

Environmental Consequences of the No Grazing Alternative (Alternative C): Impacts from the No Action Alternative would result in no dust production due to grazing activities.

Mitigation: None.

SOILS (includes a finding on Standard 1)

Affected Environment: Table 4 is a breakdown of soil units and associated ecological sites for Pasture 8 of the Artesia allotment. Soils analyzed in this document have been covered in

the Moffat County Soil Survey. The soil surveys delineate individual soil unit polygons and associated ecological sites.

Table 4: Soil Summary for Pasture Eight of the Artesia Allotment

Pasture Eight of the Artesia Allotment - Soil Summary		
BLM Acres	Soil Unit	Ecological Site
33	Almy loam, 3-15percentslope	Rolling Loam
567	Deaver-Chipeta complex, 3-35percentslope	Clayey Saltdesert
356	Eghelm loamy fine sand, 0-3percentslope	Saltdesert Overflow
112	Massadona silty clay loam, 0-12percentslope	Clayey Loam
1933	Rock outcrop-Torriorthents complex, 50-75percentslope	---
934	Schooner-Rock outcrop complex, 5-45percentslope	Sandy Juniper
429	Torriorthents-Rockoutcrp, sandstn cmplex, 30-75percents*	---
1	Water	---
4365		

Soils that are occupied with plant communities rated as a mid seral, late seral, or PNC (Potential Natural Community) have sufficient cover of desirable plant species to produce adequate litter and ground cover to minimize runoff and provide for soil protection (refer to the Vegetation section below). These soils are meeting the Colorado Public Land Health Standards for upland soils.

Soils that have sites rated as early seral plant communities do not have sufficient diversity and/or cover of native plant species to provide effective ground cover to prevent overland flow, runoff, and general soil degradation. These soils are experiencing a certain degree of pedestaling, minor expression of rills, and some areas have active gully erosion. The establishment of cheatgrass and other invasive annuals on these soils is the primary reason for soil degradation because these species do not have root structures and above ground biomass capable of stabilizing/protecting soils. Early seral sites in this area generally have soils that are typically within drainage bottoms and toe slopes such as Deaver-Chipeta complex and Eghelm loamy fine sand. Within these two soil types, 172 acres are not meeting land health standards in the Deaver-Chipeta complex and 111 acres are not meeting in the Eghelm loamy fine sand. There are also five acres not meeting land health standards in the Massadona silty clay loam.

Environmental Consequences of the Proposed Action (Alternative A): Implementation of the Proposed Action would authorize spring use for cattle in this allotment. Spring is considered the critical growth period for cool-season perennial grasses in the area. Cool-season perennial grasses generally provide above ground cover to erosive soils as well as having root-structures capable of stabilizing soils. However if light utilization targets are met (20-40percent), and the proposed rotation is implemented, it is anticipated there will be adequate residual cover of perennial grasses and forbs to maintain soil stability, and prevent excess soil movement. In this instance, soils that are currently meeting land health standards would continue to meet land health standards into the future.

Churning of soils and soil compaction from livestock movement, especially along heavily used trails could leave areas of soil devoid of vegetation. These areas could also see a certain level of soil movement during heavy rainfall events or during spring runoff. Generally areas where there is heavy trailing will be around areas of common livestock congregation such as around water sources, or areas where supplemental mineral is being placed.

Areas that are currently not meeting land health standards due to increased cover of invasive annuals in the Deaver-Chipeta complex and the Eghelm loamy fine sand are expected to continue not meeting land health standards regardless of livestock management. These areas have crossed a transitional threshold that would require intense and expensive management to correct. It is anticipated that a certain degree of soil movement/loss will continue to occur in these areas.

Environmental Consequences of the Continuation of Current Management (Alternative B): The continuation of current management alternative would keep this Pasture as a winter sheep use Pasture by Morapos Sheep Company. Morapos Sheep Company has not used the allotment in eight years and it is anticipated they will continue to not use it essentially putting the allotment in non-use if this alternative is implemented. If Morapos Sheep Company did decide to use the allotment, use would be limited on much of the allotment because lack of access across fenced private land within the allotment. The only portion of the allotment that the permittee would have access to is on the west end of the Pasture in section 4 of township 3 north, range 102 west. This situation would provide the best opportunity for plant communities that protect soils to recover in areas that are not grazed. This recovery would be most noticeable in sites that are classified as mid seral. These sites are areas that were on the threshold of being classified as not meeting land health standards and no livestock grazing would increase the rate of recovery in these areas.

The portion of the allotment in section 4 that is still accessible the Morapos Sheep Company is still meeting land health standards and would continue to meet standards. Winter use while vegetation is dormant does not have as much impact as use during the critical growing season. Utilization targets under this alternative are set higher (40-60percent) as outlined in the 1997 WRFO ROD/RMP, but there will still be ample residual cover of vegetation to protect soils from erosion.

Environmental Consequences of the No Grazing Alternative (Alternative C): Impacts from the no grazing alternative are similar to those addressed in the continuation of current management alternative. The only portion of the Pasture that would receive extra benefit from no grazing is in section 4. Under this alternative, this portion of the allotment would also not receive any type of livestock use. This would provide the best opportunity for increased plant vigor, plant biomass, and litter accumulation to protect soils.

Mitigation: None.

Finding on the Public Land Health Standard for upland soils: Generally soils within the allotment are classified as mid to late seral soils and have vegetative cover capable of stabilizing soils and preventing general soil degradation. Portions of soils located within the Deaver-Chipeta

complex and the Eghelm loamy fine sand currently are not meeting land health standards as a result of annual plant domination. Approximately 283 acres within these soil units are not meeting standards and would require intense management actions along with grazing management to improve soil stability, and make progress towards meeting land health standards.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous wastes on the subject lands. No hazardous materials are known to have been stored or disposed of and there are no known solid waste dump sites in the allotment.

Environmental Consequences of Proposed Action (Alternative A): No listed or extremely hazardous materials are proposed for use in the Proposed Action. All applications of pesticides would be in compliance with BLM requirements and allowed under a separate authorization.

Environmental Consequences of No Action Alternative (Alternative B): Impacts would be similar to the Proposed Action.

Environmental Consequences of No Grazing Alternative (Alternative C): Impacts from the no-action alternative would result in no dust production due to grazing activities.

Mitigation: Please contact the BLM – WRFO Hazardous Materials Coordinator at (970) 878-3800 and/or the Colorado Department of Public Health and Environment (CDPHE) through the 24-hour spill reporting line at 1(877)518-5608, if the permittee suspects the release of any chemical, oil, solid waste, petroleum product, or sewage within the allotment.

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

Affected Environment: The proposed new allotment is almost entirely within the Red Wash watershed. A small portion of the Highway Pasture drains into Stinking Water Creek and both Stinking Water and Red Wash are tributary to the White River. Stinking Water Creek and Red Wash are intermittent to ephemeral throughout most of their length and flow is generally controlled by summer and late summer thunderstorms. The following surface water segment may be impacted by this project:

Table 5: Water Quality Classification Table

Segment	Segment Name	Use Protected	Protected Beneficial Uses		
			Aquatic Life	Recreation	Agriculture
13a	All tributaries to the White River from Piceance Creek to Douglas Creek	Yes	Warm 2	Non Contact	Yes
22	All tributaries to the White River from above Douglas Creek to the Utah border	No	Warm 2	Primary Contact	Yes

* Colorado Department Of Public Health And Environment, Water Quality Control Commission, Regulation No. 37 Classifications and Numeric Standards For Lower Colorado River Basin, Effective June 30, 2011

Segment 13a and Segment 22 are protected for warm water aquatic life (Warm 2). The “warm” designation means the classification standards would be protective of aquatic life normally found in waters where the summer weekly average temperatures frequently exceed 20 °C. The “2” designation means that it has been determined that these waters are not capable of sustaining a wide variety of warm water biota. Both of these segments have standards that are protective of agriculture and 13a is protected for non-contact recreation and segment 22 for primary contact. Segment 13a is use-protected, meaning that the quality of these waters may be altered by actions so long as applicable use-based water quality classification and standards are met. There was an extensive spring survey in the early 1980s and one spring was inventoried in section 35 in the Highway Pasture. This spring is called Lazy Y #3 and had a measured flow of 1.9 gallons per minute and is in a tributary to Red Wash. There is no range improvement on this spring and no plans currently to develop it.

Environmental Consequences of the Proposed Action: The Proposed Action will change the livestock type and timing of grazing. This allotment consists of four Pastures and the Highway and the State Pastures are the most likely to see impacts that could affect surface water quality (see the Vegetation Section) due to not meeting standards for Public Land Health. The valley bottom on the State Pasture is greasewood and cheatgrass and shows evidence of gully formation and the initiation of head-cut features which is a vertical drop in the channel bed. These types of features indicated the potential for sediment loading from these areas.

Water quality impacts from grazing tend to be greatest during the spring when conditions are muddy leading to more erosion and when plants are in the primary production phase and are typically more susceptible to impacts from grazing. However, in this case this is also the best time to graze cheatgrass with the hopes of reducing its dominance of the understory on these channel bottoms.

Grazing removes vegetation that may help reduce rain splash erosion and lessen surface runoff. Livestock often preferentially remove grass and forb species that form root masses that hold together soil matrices better than non-desirable species. Hoof action from trailing to and from water and forage sources as well as travel through Pastures create preferential flow paths that can concentrate overland flow and intercept subsurface flows. The Highway Pasture is mostly native vegetation communities that would in general be beneficial to water quality by decreasing surface runoff and reducing bareground. Cattle use in this area could lead to a vegetation shift to grasses and forbs that are not as beneficial to water quality if grazing duration or intensity is not sustainable. These impacts will be assessed and changes to the permit conditions may occur during yearly range management modifications to address specific situations. With good grazing management impacts are not expected beyond those typically experienced on public lands.

Concentrated use will occur around water sources. Impacts from cattle use around water sources include compaction and direct impacts to vegetation from grazing. Springs can experience water quality impacts from cattle hoof action near the source and grazing of wetland plants typical of springs. In some cases trampling by cattle can cause springs to cease production or result in more

surface water that can be subject to evaporation. Range improvements can protect the integrity of springs and maintain water quality downstream from springs. A typical range improvement project will include fencing off the vegetation and the water source associated with the spring and installation of a spring box or infiltration chamber that collects water below the surface and feeds a pipeline that is run to a trough outside the fenced area.

The WRFO manages grazing on public lands according to the White River ROD/RMP for the WRFO that outlines Standards and Guidelines for Public Land Health and Colorado Livestock Grazing Management Guidelines. These Standards include guidelines for upland soils, riparian systems, healthy desirable plant species, and water quality (both surface and ground).

Environmental Consequences of Alternative B, No Action Alternative: This alternative would continue the current grazing authorization for sheep and would not create a new allotment for cattle grazing. Sheep use is currently authorized from December through April and would be during a cooler wetter period of the year than the grazing in Alternative A. Vegetation loss and trailing would be expected and would still contribute to potential increases in sediment production from exposed soils, gully initiation, and channel erosion.

Environmental Consequences of Alternative C, No Grazing Alternative: The nonuse of this area for grazing would generally improve water quality as compared to the Proposed Action.

Mitigation: Immediate action should be taken to reduce trailing issues when they are observed. If accelerated erosion (rilling, gulying etc.) is occurring due to trailing, please contact the authorized officer to determine if a change in management, a rangeland improvement project, or a change in the grazing approach should be completed to reduce impacts.

Finding on the Public Land Health Standard for water quality: There is currently no water bodies listed on Colorado's section 303(d) of the Clean Water Act. The Proposed Action is not likely to cause the exceedance of the Colorado water quality standards.

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

Affected Environment: There are no riparian systems within the area of this Proposed Action.

Environmental Consequences of the Proposed Action (Alternative A): No impacts identified.

Environmental Consequences of the Continuation of Current Management (Alternative B): No impacts identified.

Environmental Consequences of the No Action Alternative (Alternative C): No impacts identified.

Mitigation: None.

Finding on the Public Land Health Standard for riparian systems: Not applicable.

VEGETATION (includes a finding on Standard 3)

Affected Environment: Table 6 lists the plant community appearance for the ecological sites or woodland types on the allotment associated with the Proposed Action, along with the predominant plant species comprising the composition of each community. Forb species, though important to the diversity of a community and making up to 25 to 30percent of the composition of several of the plant communities listed, are not presented in Table 6 because they generally are not contributors to the appearance or dominance of the community.

Table 6: Ecological Site Breakdown within Pasture Eight of the Artesia Allotment

Ecological Site	Plant Community Appearance	Predominant Plant Species in the Plant Community
Clayey Saltdesert	Salt Desert Shrubland	Gardner saltbush, shadscale, mat saltbush, galleta, Salina wildrye, squirreltail, Indian ricegrass
Clayey Loam	Grassland	Salina wildrye, mutton grass, western wheatgrass, Prairie junegrass, squirreltail, shadscale
Rolling Loam	Sagebrush/grass Shrubland	Wyoming big sagebrush, winterfat, low rabbitbrush, horsebrush, bitterbrush, western wheatgrass, Indian ricegrass, squirreltail, prairie junegrass, Nevada and Sandberg bluegrass
Saltdesert Overflow	Grassland	Alkali sacaton, galleta, Indian ricegrass, squirreltail, sand dropseed, fourwing saltbush, rubber rabbitbrush, greasewood.
Semidesert Loam	Grass/Sagebrush Shrubland	Needle-and-thread, western wheatgrass, galleta, Sandberg bluegrass, squirreltail, Indian ricegrass, sand dropseed, Wyoming big sagebrush, fourwing saltbush, winterfat
Sandy Juniper	Pinyon/Juniper Woodland	Pinyon pine, Utah juniper, mountain mahogany, bitterbrush, serviceberry, Wyoming big sagebrush, beardless bluebunch wheatgrass, western wheatgrass, prairie junegrass, Indian ricegrass, mutton grass

Table 7 is a representation of the vegetation growth periods for different vegetation types found allotments associated with the Artesia allotment. These dates are based upon estimated averages and can vary from year to year dependent upon climatic conditions.

Table 7: Vegetation Growth Periods Based on Plant Community Type

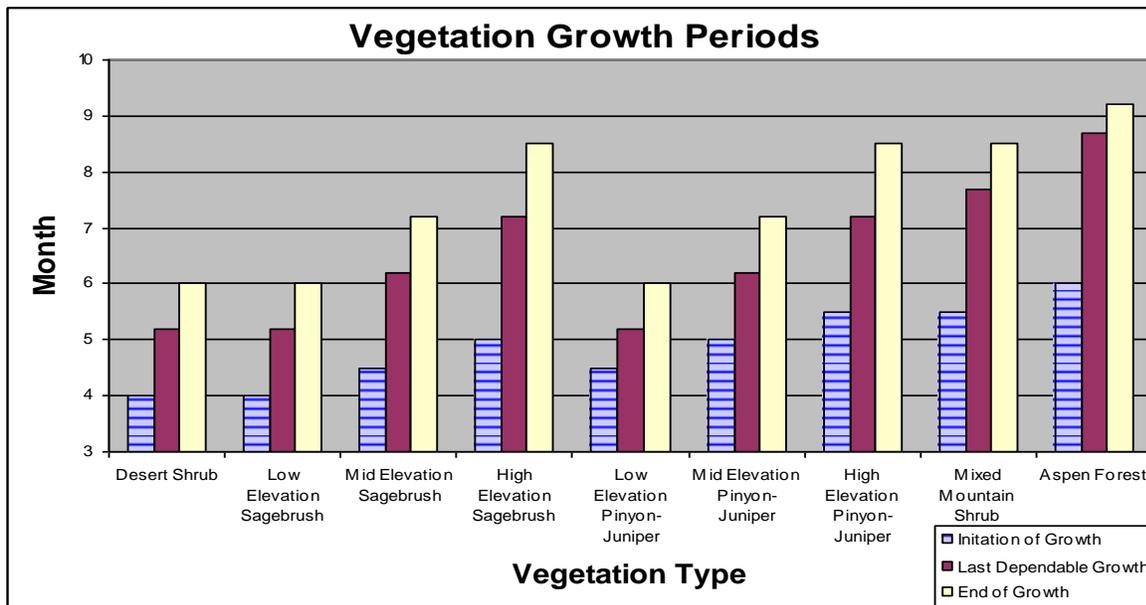


Table 8 shows the seral rating used by the BLM to rate rangeland vegetation communities in comparison to the Potential Natural Plant Community (PNC) for a particular ecological site.

Table 8: Ecological Site Similarity Ratings

ECOLOGICAL SITE SIMILARITY RATINGS	
Seral Rating	percent Similarity to the Potential Natural Plant Community (PNC)
Potential Natural community (PNC)	76-100percent composition of species in the PNC
Late-Seral	51-75percent composition of species in the PNC
Mid-Seral	26-50percent composition of species in the PNC
Early-Seral	0-25percent composition of species in the PNC

Table 9 shows an estimate of the public land acreage falling within one of the seral ratings for each ecological site on the allotment associated with this permit renewal. These estimates are based upon professional judgments of the Rangeland Management Specialist trained in the use of the rating system. Nearly all ecological sites were visited in the fall of 2010 and spring of 2011 for a plant community assessment of the Colorado Public Land Health Standards for each allotment. Historical grazing practices (spring use, over utilization, etc.) and prolong drought conditions have created the situation of early seral plant communities not meeting the rangeland health standards. The early seral sites not meeting standards have crossed a threshold and are nearly irreversible regardless of the livestock management without some form of disturbing activity such as fire or chemicals.

Table 9: Ecological Site Rating in Pasture Eight of the Artesia Allotment

Pasture Eight of the Artesia Allotment (06308)						
Ecological Site Similarity Rating						
Ecological Site	Total BLM ACRES	PNC	Late Seral	Mid Seral	Early Seral (Not Meeting Standards)	BLM Acres Classified
Clayey Loam	112	11	54	42	5	112
Clayey Salt-desert	567	81	178	136	172	567
Rolling Loam	33	15	18	0	0	33
Salt-desert Overflow	356	48	130	67	111	356
Sandy Juniper	933	554	310	69	0	933
Rock Outcrop/Badlands	2364	0	0	0	0	0
Total:	4,365	709	690	314	288	2001
percent BLM Acres Classified:		35.4percent	34.4percent	15.6percent	14.3percent	

As shown, within Pasture 8, 85 percent of the ecological sites represent plant communities within acceptable thresholds for healthy communities and within acceptable levels of desired plant communities (mid-seral to PNC) as defined in the White River ROD/RMP. Vegetation production and species composition on these sites provide adequate cover for soil protection and forage production to meet foraging demands. Many of the allotment’s acres are within unclassifiable seral stages such as badlands and rock outcrops/steep slopes (2,364 acres). These acres are generally within an acceptable land health standard status due to the low impact from livestock and/or wildlife use because of their state of lacking natural resources (i.e., forage).

Many acres of the mid and late seral communities have a higher composition of mountain big sagebrush (*Artemisia tridentata* spp. *vaseyana*) and encroaching PJ trees into the sagebrush communities which has resulted primarily from a lack of a natural fire regime and from grazing influences. The early seral communities not meeting public land health standards are primarily valley bottoms, valley toe-slopes, and/or flats sites which have been degraded from the livestock grazing influences such as historic spring use. The majority of these early seral communities’ not meeting health standards lie within the Moosehead and State Pastures where there is an increase in cheatgrass (*Bromus tectorum*) along with other early seral annuals in the plant community or in areas of common cattle congregation. In this area, the causative factors for the early seral conditions are excessive livestock use, especially during the critical growing season, water availability, and historic grazing intensity. Overall, early seral communities not meeting the Colorado Public Land Health Standards are due to concerns/lack of species diversity, soil protection, and/or forage production. However, the majority of these early seral areas not meeting public land health standards have crossed a threshold of annual plant domination whose condition would not significantly change with or without livestock grazing.

For the past two years (2009 and 2010) there has been average or above average spring moisture during the critical growing season to aid in forage/seed production on rangelands. The increased precipitation along with non-use over the last several years has allowed areas of the allotment to begin to recover from previous over-use. This is especially apparent in the mid and late seral sites which generally receive the most benefit from non-use. There has been average

precipitation amounts in the fall (August and September), and while this will aid in plant re-growth and act as a spring board into the next growing season it is not as beneficial as receiving moisture in the spring when perennial cool-season plants do most of their vegetative production. Precipitation levels will continue to be taken into account when developing annual grazing authorizations on the allotment.

Environmental Consequences of the Proposed Action (Alternative A): Implementation of the Proposed Action would authorize grazing use in the critical growing season for cool-season perennials. However, implementation of the 1 in 2 year rotation along with utilization targets between 20-40percent will maintain/continue to improve vegetative communities in the Pasture that are currently meeting land health standards. Spring use will also allow the permittee to use the cheatgrass in the allotment which becomes unpalatable to livestock in the early summer. Areas already dominated by cheatgrass and other invasive annuals will not be impacted by spring grazing since they have already crossed a threshold that cannot be reversed without major management practices such as fire and chemical treatments followed by re-seeding the area to prevent annuals from re-invading the area.

Environmental Consequences of the Continuation of Current Management Alternative (Alternative B): Continuation of current management would keep this allotment as a winter sheep allotment. Use of vegetation while it is dormant in the winter has less impact on reproduction and plant vigor. Implementation of this alternative would ensure no use occurs on vegetation during the spring critical growth period and all communities currently meeting land health standards would continue to meet.

It is anticipated that since the permittee has not used this allotment for the last eight years due to logistical issues, they would continue non-use. The only part of the Pasture they could use is in section 4 because access to the rest of the allotment is blocked by fenced private lands. Essentially under this alternative, non-use would occur on the Pasture. Non-use on the Pasture would create the most ideal situation for vegetation. It would provide the best opportunity for above ground biomass production, plant vigor, and plant proliferation.

Environmental Consequences of the No Grazing Alternative (Alternative C): The no grazing alternative as mentioned in the continuation of current management alternative would provide the best opportunity for vegetation growth, vigor, biomass production, litter accumulation and proliferation. Increased vegetative cover would in turn provide increased soil stability and increased water infiltration.

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial):): Currently 1,713 of the BLM acres classified within Pasture 8 of the Artesia allotment are meeting land health standards for vegetation. Approximately 172 acres within the clayey salt desert, 111 acres in the salt desert overflow, and five acres clayey loam ecological sites are not currently meeting land health standards due to monocultures of cheatgrass and other early seral annuals. These areas have generally crossed a transitional threshold that cannot be corrected through grazing management alone. The

remaining 2,364 acres within the allotment are not classified because they are generally rock-outcroppings, gullied lands, or badlands.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: Hoary cress (*Cardaria draba*) is a list B noxious weed on the state of Colorado noxious weed list. It is located in portions of the Red Wash drainage within the allotment and the infestation continues down into neighboring allotments south of Highway 40. No other list A or B species are known to occur within the project area, however Russian knapweed (*Acroptilon repens*), musk thistle (*Carduus nutans*), and perennial pepperweed (*Lepidium latifolium*, tall whitetop) do occur within the Wolf Creek drainage east and south of the project area.

Cheatgrass is an invasive, non-native annual identified as a List C species on the state of Colorado noxious weed list that is present throughout the allotment to varying degrees. Its presence is limited to areas of disturbance such as around roads or around livestock ponds. No other known invasive weeds are known to exist on BLM lands within the Cottonwood Draw allotment.

Environmental Consequences of the Proposed Action (Alternative A): The proposed spring use does have the potential to impact native cool-season perennial grasses and forbs if utilization is not monitored. Over-use on native desirables could create a pathway for non-native invasive species to establish in areas. This is not expected to occur with the implementation of the Proposed Action if utilization rates are in the target area of 20-40percent, and the proposed rotation is followed. The proposed management plan should maintain the health of rangelands that are currently meeting land health standards and prevent establishment of new weed populations. Areas that are already dominated by invasive annual species such as cheatgrass and mustards are expected to remain the same regardless of grazing.

Livestock does have the potential to act as a vector for weed seeds when they come onto the allotment from other areas. Early and mid-seral ecological sites would be at risk of being invaded by new weed species should they be brought on site from other grazing lands.

Environmental Consequences of the Continuation of Current Management (Alternative B): Continuation of current management would essentially be like taking non-use on the allotment. The current permittee has not used this Pasture of the Artesia allotment in eight years due to a lack of access to large portions of the Pasture. It is anticipated that if the continuation of current management alternative is selected, Morapos Sheep Company would continue not using the Pasture. This would provide an ideal situation for improving rangeland/vegetation health. This would highly reduce the potential for new weed species establishment on the allotment from over-use on perennial species that directly compete with weeds, and it would eliminate the chance of livestock bringing weed seeds onto the allotment that is stuck in their fur or in their feces.

Assuming the current permittee did use the allotment, the only area they have access to is section four on the west end of the allotment. This portion of the allotment is currently meeting land

health standards for vegetation and soils, and winter use by sheep is not expected to change that if management objectives are adhered to. Winter use on native grasses while they are dormant has less impact on the plants than when they are actively growing and trying to produce seeds. If utilization is kept within the 40-60percent range that is currently outlined in the management plan, vegetation will continue to produce adequate above ground biomass therefore minimizing the potential for new weed establishment. There is the potential livestock could transport seeds onto the allotment and create new infestation under this alternative.

Environmental Consequences of the No Grazing Alternative (Alternative C): Consequences of the no grazing alternative are similar to those analyzed above. The primary difference is that this alternative would eliminate the potential for grazing use on the west end of the allotment. As analyzed above, this would provide an ideal situation for plant maintenance and recovery; therefore limiting the risk of weed establishment. This alternative also eliminates the potential for weed seeds to be transported onto the allotment by livestock.

Mitigation: None.

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

Affected Environment: There are no special status plant species located within the project area.

Environmental Consequences of the Proposed Action (Alternative A): No impacts identified.

Environmental Consequences of the Continuation of Current Management (Alternative B): No impacts identified.

Environmental Consequences of the No Action Alternative (Alternative C): No impacts identified.

Mitigation: None.

Finding on the Public Land Health Standard for Threatened & Endangered species: Not applicable.

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

Affected Environment: White-tailed prairie dogs, a BLM sensitive species, are narrowly distributed (along Highway 40) throughout lower elevation salt desert ranges of the Highway Pasture. Prairie dogs occupy valleys and basins with low or sparse woody cover in greatest abundance, and are typically associated with vegetation types and range sites that are heavily

represented by annual grasses (e.g., cheatgrass) and forbs. Prairie dog abundance is strongly influenced by disease (e.g., sylvatic plague, tularemia) and populations tend to fluctuate dramatically. Based on allotment inspections conducted in late April, current occupation of the Highway Pasture is isolated and extremely light.

Prairie dogs and their burrow systems are important habitat components of burrowing owl (a BLM sensitive and State threatened species), and reintroduced populations of black-footed ferret. Under the auspices of a non-essential, experimental population rule, black-footed ferret recovery was initiated in northwest Colorado and northeast Utah in 1999. Between 2001 and 2008, ferrets were released annually in the designated Wolf Creek Ferret Management Area (WCMA) that lays along the US 40 corridor in the lower Wolf Creek basin. The Artesia allotment is located approximately 10 miles west of the eastern edge of the WCMA. Although no ferrets are known to occupy the Artesia allotment, prairie dog complexes are strung fairly continuously along the US 40 corridor between the WCMA and the Utah border, allowing potential ferret movement along the US 40 corridor. Ferrets likely make minimal (if any) use of the Highway Pasture due to the low density of prairie dog burrows. Ferrets are specialist predators which rely on prairie dogs as prey. Ferrets breed in February and March with parturition in mid- to late-May. Kits emerge from natal burrows in mid-July.

Burrowing owls, a state threatened and BLM sensitive species are uncommon in this Resource Area. These birds return to occupy a prairie dog burrow system in early April and begin nesting soon afterward. Young birds are normally fledged by late July with family groups remaining together through September, when the birds leave for southern wintering grounds.

Ferruginous hawks, a BLM sensitive species, also rely on prairie dogs as a substantial prey species. These hawks return to these ranges in late February and begin nesting (egg laying) by early to mid April. Incubation continues through late May with fledging of young by late July. Breeding populations of these hawks vary in direct relation to the prairie dog, cottontail, and jackrabbit prey base.

A small portion (~320 acres or 15 percent) of the Highway Pasture falls within CDOW mapped overall greater sage-grouse range. The nearest known active lek is over five miles from the northern edge of the allotment boundary. It is suspected that sage-grouse use in the allotment is confined to the winter months.

Environmental Consequences of the Proposed Action (Alternative A): Reductions in ground cover, particularly cool season grasses, would likely be most noticeable in the valley bottoms and areas of more gentle terrain that are easily accessed by cattle and that are typically occupied by prairie dogs. Spring livestock grazing has the potential to impact gestating and lactating females as they require a higher energy intake during the reproductive period. Although livestock and prairie dog use will be coincident, the grazing system is not anticipated to have any measureable influence on prairie dog populations, due mainly to the relatively limited amount of prairie dog involvement. Use of the Highway Pasture would be light (20 – 40 percent) and short duration (~two weeks) and is expected to be compatible with continued maintenance of prairie dog populations. Similarly the proposed grazing system is not expected to have any effective

influence on black-footed ferret, ferruginous hawk or burrowing owl due to limited and isolated burrow systems.

The Proposed Action is not expected to have effective influence on sage-grouse populations as sage-grouse use is generally limited and confined to the winter months.

Environmental Consequences of the Continuation of Current Management Alternative (Alternative B): The allotment is currently classified as a winter sheep allotment, but has been in a non-use state for the past eight years. Continuation of the current management alternative would be virtually identical to consequences addressed in the no grazing alternative.

Environmental Consequences of the No Action Alternative (Alternative C): Removal of livestock (essentially continuation of current management) would elicit the greatest response in the roughly 300 acres of mid seral communities (predominately in the Highway Pasture). Presently these communities exhibit a strong perennial component which is only expected to improve over time. While increases in grass height and canopy cover are typically beneficial to most wildlife species, shorter vegetative cover may benefit prairie dogs as it allows them to visually scan for predators. Due to the limited amount of occupied habitat, livestock removal is not anticipated to have any substantive influence on continued maintenance of prairie dog populations. Livestock removal would likely have very little influence on black-footed, ferruginous hawk, and burrowing owl populations. Similarly, livestock removal is not expected to have any measurable influence on over-winter survival of sage-grouse.

Mitigation: None.

Finding on the Public Land Health Standard for Threatened & Endangered species: Public Land Health Standards for those special status species associated with white-tailed prairie dogs in these allotments, including black-footed ferret, ferruginous hawk, and burrowing owl, are currently being met. There is no evidence to suggest that proposed grazing practices would have an adverse influence on populations, available extent of suitable habitat, or the reproductive activities of these four species and would, therefore, have no influence on continued meeting of the land health standard. Neither the current nor the no grazing alternative would be expected to alter habitat conditions important for special status species.

MIGRATORY BIRDS

Affected Environment: Pasture 8 of the Artesia allotment encompasses approximately 4,300 acres of BLM administered lands. Elevation within the allotment ranges from 5,900 to roughly 6,800 feet and encompasses several vegetation communities including sage-steppe (shadescale, saltbush), mountain and basin big sagebrush and pinyon-juniper. Herbaceous understory is in varying degrees of seral stages. Much of understory in the State and Moosehead Pastures (confined mainly to the valley bottoms) is in an early seral state, with a strong component of invasive, annual species such as cheatgrass, bur buttercup and purple mustard. Understory within the Highway Pasture contains a continuous amount of bur buttercup; however

there is a strong component of perennial grasses including sandberg bluegrass, prairie junegrass, squirreltail, galleta, and Salina wildrye. Valley bottoms within the Red Wash Pasture are generally well intact with a strong perennial component and limited amount of annual expression.

The vegetation communities that comprise this pasture provide nesting habitat for a variety of migratory bird species during the breeding season (mid-May through mid-July). Grassland and sagebrush associates commonly found throughout this allotment include western meadowlark, horned lark, sage thrasher, vesper sparrow, loggerhead shrike, and sage sparrow. Pinyon-juniper associates include Bewick's wren, gray flycatcher, and black-throated gray warbler. Rock outcrops and cliffs provide nesting habitat for species such as golden eagle, rock wren, and white-throated swift. There are no specialized or narrowly endemic species known to inhabit the allotment. Species designated by US Fish and Wildlife Service (USFWS) as Birds of Conservation Concern (USFWS 2008) include Brewer's sparrow (sagebrush communities), gray vireo, pinyon jay, and juniper titmouse (pinyon-juniper woodlands). Brewer's sparrows are common in virtually all sagebrush and mixed shrub communities in northwest Colorado. Juniper titmouse and pinyon jay are likely widely distributed at appropriate densities throughout the Pasture's woodland habitats.

Environmental Consequences of the Proposed Action (Alternative A): Under the proposed grazing system there would be a change in livestock kind from sheep to cattle with season of use changing from winter to spring use. However, the allotment has been in a non-use state for the past eight years (effectively identical to the no grazing alternative) and likely would have remained in a non-use state for an indefinite amount of time. As proposed, livestock (cattle) grazing would occur during the initial/critical growing season for an approximate two week period in each Pasture, rotating in alternate years. Utilization would be light (20 – 40 percent), however this grazing regime would have a greater impact on herbaceous understory (percent cover and diversity) than that of the current system. Reductions in herbaceous cover would be most evident in areas of more gentle terrain (i.e., valley bottoms and toe slopes) that are expected to experience more concentrated livestock use. The nearly 300 acres of early seral communities confined mainly to the valley bottoms of the State, Highway and Moosehead Pastures have crossed a threshold that, without some type of intervention (fire, chemical), will remain dominated by annuals whether or not grazing occurs. The roughly 314 acres of mid seral communities will have the greatest potential to be influenced by livestock grazing. However due to light utilization, coupled with the rotating grazing schedule, the proposed grazing schedule is not expected to further degrade herbaceous understory. It will likely remain static.

As proposed, livestock will be removed from the allotment by 5/19, and thus would, for the most part, effectively avoid the nesting season for most species. There will likely be some potential for trampling/disruption to occur, particularly in ground or low shrub nesting species; however it is expected to be minimal. Reductions in the amount of herbaceous understory available for forage and cover resources prior to the nesting season are anticipated under the proposed grazing system. It is suspected that nest densities may be suppressed to some degree in those areas that are expected to experience concentrated livestock use. The proposed grazing system is not expected to have any measurable influence on breeding bird abundance or

reproductive/recruitment success in the permit area's ~900 acres of woodland types. Low forage availability and more rugged terrain generally limit livestock use of these habitats.

Environmental Consequences of the Continuation of Current Management Alternative (Alternative B): Currently, the allotment is classified as a winter sheep allotment which has not seen use for the past eight years and would likely continue to remain in a non-use state for some time. Continuation of the current management alternative would be virtually identical to consequences addressed in the no grazing alternative.

Environmental Consequences of the No Action Alternative (Alternative C): Livestock removal would be expected to have the greatest influence on the roughly 300 acres of mid seral communities. Improvements in plant vigor and composition would be expected under this alternative over time. Bird species that rely on more developed understories (e.g., Brewer's sparrow and vesper sparrow) would be expected to experience the greatest benefit from this alternative. Livestock removal is not expected to improve the nearly 300 acres of early seral communities as these types have generally crossed a threshold where without some type of intervention (i.e., fire, chemical) shifts in plant composition and plant health would be unlikely. Similarly, livestock removal is not anticipated to have any effective influence on the approximately 900 acres of woodland habitats and those species associated with these communities (see pinyon-juniper obligates above). Livestock use in these communities tends to be light and incidental due to rugged terrain and low forage availability.

Mitigation: None.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: The allotment does not contain any BLM administered aquatic systems that are known to support higher order vertebrate aquatic species.

Environmental Consequences of the Proposed Action (Alternative A): The Proposed Action would have no conceivable influence on aquatic wildlife or associated habitats.

Environmental Consequences of the Continuation of Current Management Alternative (Alternative B): There would be no direct or indirect impacts to aquatic resources under the current management alternative.

Environmental Consequences of the No Action Alternative (Alternative C): There would be no direct or indirect impacts to aquatic resources under the no action alternative.

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): The allotment does not support any known aquatic resources, thus the land health standards would not apply.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The big sagebrush, grassland, and pinyon-juniper communities provide habitat for big game species including mule deer, elk, and pronghorn.

Mule deer: The lower elevation big sagebrush communities in the Highway and southern half of the State Pastures are categorized by the Colorado Division of Wildlife (CDOW) as mule deer severe winter range – a specialized component of winter range that holds virtually all an area's deer under the most severe winter conditions (i.e., extreme cold and heavy snow pack). These ranges are typically occupied from January through April. With the exception of a small section of summer range in the extreme northern portions of the Red Wash and Moosehead Pastures, the remainder of the allotment is classified as general winter range. These ranges receive the heaviest use from October through January.

Elk: With the exception of a small section of summer range (generally confined to higher elevation pinyon-juniper and mountain shrub communities) in the northern portions of the Red Wash and Moosehead Pastures, the entire allotment is classified as an elk winter concentration area. These areas receive the heaviest use from September through April.

Pronghorn: Overall pronghorn range, as categorized by the CDOW, occurs in the sagebrush and salt desert communities (lower half) of the Highway Pasture.

There are several historic nests (golden eagle, red-tailed hawk, prairie falcon) located on the cliffs and rock outcrops that occur throughout the allotment. Additionally, mature components of pinyon-juniper woodlands provide nest substrate for woodland raptors including Cooper's and sharp-shinned hawk, and several owl species.

Limited information exists on small mammal use and distribution within the allotment; however it is suspected that nongame species using the allotment's habitats are typical and widely distributed in extensive like habitats across the Resource Area and northwest Colorado. Two small mammals, the sagebrush vole and Merriam's shrew have been identified by CDOW as species of potential concern (Boyle and Reeder 2005) due to their association with sagebrush and the limited knowledge of their natural history and population status. It is thought that these species may occur within the allotment's sagebrush communities.

Environmental Consequences of the Proposed Action (Alternative A): The proposed grazing system calls for a change in livestock kind (sheep to cattle) and season of use (winter to spring) but for all intents and purposes will switch from a no grazing to grazing system. Livestock will use the allotment for an approximate seven week period (4/1 – 5/19) and will rotate through four Pastures (see proposed grazing schedule in the Proposed Action). Under this system livestock and big game use may potentially coincide during the early spring. Based on an allotment inspection conducted in late April, there was no evidence of chronic big game use although both deer and elk sign was evident. The proposed grazing system is not expected to trigger any big game/livestock conflicts. Livestock tend to make greater use of annuals in the early spring as they begin to emerge than big game species typically do. While there is likely to

be some degree of competition the proposed grazing system is not expected to be incompatible with the continued support of big game populations.

The most noticeable influence of the proposed grazing system will likely be to small mammal populations. Reductions in herbaceous height, density and residual component, particularly in livestock concentration areas may suppress small mammal populations on a localized scale. Non-game populations associated with the upland communities, particularly dense mountain shrub basins that retain more fully developed understories, likely occur at densities that approach habitat potential. The proposed grazing system is not expected to have measureable influence on these habitats as livestock generally make limited use of these areas. The abundance of non-game animals associated with gentle gradient upland shrub types where the ecological status of herbaceous ground cover is classified as mid-seral are likely suppressed to some degree, and will likely remain suppressed under the proposed grazing system, however population viability probably remains relatively intact.

The proposed grazing schedule is not anticipated to have any direct influence on raptor nesting activities. Livestock generally make limited to use of woodland habitats due to low forage availability and more rugged terrain. Reductions in understory height and density in addition to litter amount would be expected to some degree. This could lead to reductions in avian and small mammal prey populations at a local scale; however it would likely have little measureable influence on nest densities and overall nestling success of woodland raptors.

Environmental Consequences of the Continuation of Current Management Alternative (Alternative B): The allotment is currently classified as a winter sheep allotment; however, it has not been grazed for the past eight years and would likely continue to remain in a non-use state for some time. Continuation of the current management alternative would be virtually identical to consequences addressed in the no grazing alternative.

Environmental Consequences of the No Action Alternative (Alternative C): Removal of livestock from the allotment (continuation of grazing system) would be expected to elicit the greatest response in small mammal species that typically benefit from increasing vegetative, forage and litter cover (shrews, voles). The allotment has been in a non-use state for the past eight years therefore it is suspected that small mammal densities are likely at or near potential. The most noticeable improvements would be in the 300+ acres of mid seral communities. Although annual, invasive persist in these communities, there is a strong perennial component which will likely become more pervasive over time. Continued non-use is not expected to improve the nearly 300 acres of early seral communities. Due primarily to historical grazing practices; these communities have crossed a threshold where improvements to vegetative conditions would be extremely difficult without some type of intervention (fire, chemical).

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): With the exception of the approximately 300 acres (14 percent of classified acres) of annual dominated valley bottoms that currently do not meet the land health standards, the Artesia allotment generally meets the land health standards for terrestrial wildlife

communities. The Proposed Action is not expected to greatly improve land health quality, but should not detract from continued meeting of the land health standards.

CULTURAL RESOURCES

Affected Environment: Grazing permit renewals are undertakings under Section 106 of the National Historic Preservation Act. Range improvements associated with the allotment (e.g., fences, spring improvements) are subject to compliance requirements under Section 106 and will undergo separate standard cultural resources inventory and evaluation procedures. During Section 106 review, a cultural resource assessment (#11-069) was completed for Pasture 8 of the Artesia allotment by Kristin Bowen, WRFO Archaeologist on 3/23/2011. The assessment followed the procedures and guidance outlined in the 1980 National Programmatic Agreement Regarding the Livestock Grazing and Range Improvement Program, IM-WO-99-039, IM-CO-99-007, IM-CO-99-019, and IM-CO-01-026. The results of the assessment are summarized in Table 10 below. Copies of the cultural resource assessments are in the WRFO archaeology files and the allotment file.

Table 10: Cultural Resources Literature Review Results

CULTURAL RESOURCES LITERATURE REVIEW RESULTS				
Acres Inventoried at a Class III level	Acres NOT Inventoried at a Class III Level	Percent of Allotment Inventoried at a Class III Level	Number of Sites Known in Allotment	High Potential of Historic Properties (yes/no)
49	6365 Total 4305 BLM	0.9percent Total 1.1percent BLM	6	Yes
Management Recommendations (Additional inventory required and historic properties to be visited)			No additional cultural inventory is needed.	

Very little of this allotment has been previously surveyed, no block surveys have been done and only small portions of linear surveys, not all done to current standards, fall within this allotment. Only one percent of the allotment has been previously inventoried, yet six sites (two eligible, two needs data, two not eligible), and four isolated finds have been recorded. The sites are prehistoric open lithics, open camps, and open architectural sites. One site is multicomponent, with an older prehistoric camp and a historic habitation component, protohistoric open camps and open lithics, and all four isolated finds are prehistoric. The sites likely represent a time frame from the Formative Era (c. AD 0) through the 1940's, with identified Fremont and Ute sites, dated by pottery and beads. There is a fairly high potential of finding sites in this allotment. There are no livestock concentration areas on BLM administered lands in this allotment, primarily due to the fact that all water sources are currently on private. No further fieldwork is required to be done over the next 10 years.

If historic properties are located during any subsequent field inventories in this area, and BLM determines that grazing activities will adversely impact the properties, mitigation will be identified and implemented in consultation with the Colorado State Historic Preservation Office (SHPO).

Environmental Consequences of the Proposed Action (Alternative A): The direct impacts that occur where livestock concentrate, during normal livestock grazing activity, include trampling, chiseling, and churning of site soils, cultural features, and cultural artifacts, artifact breakage, and impacts from standing, leaning, and rubbing against historic structures, above-ground cultural features, and rock art (Broadhead 2001, Osbourn et al. 1987). Indirect impacts include soil erosion, gullyng, and increased potential for unlawful collection and vandalism (Broadhead 2001, Osbourn et al. 1987). Continued livestock use in these concentration areas may cause substantial ground disturbance and cause irreversible adverse effects to historic properties. Continued livestock management is appropriate, as long as identified grazing impacts to sites are properly mitigated.

Continuation of Current Management (Alternative B): Currently, the allotment is classified as a winter sheep allotment which has not seen use for the past eight years and would likely continue to remain in a non-use state for some time. Continuation of the current management alternative would be virtually identical to consequences addressed in the no grazing alternative.

Environmental Consequences of the No Grazing Alternative (Alternative C): While a no grazing alternative alleviates potential damage from livestock activities, cultural resources are constantly being subjected to site formation processes or events after creation (Binford 1981, Schiffer 1987). These processes can be both cultural and natural and take place in an instant or over thousands of years. Cultural processes include any activities directly or indirectly caused by humans. Natural processes include chemical, physical, and biological processes of the natural environment that impinge and or modify cultural materials.

Mitigation: The permittee is responsible for informing all persons who are associated with the allotment operations that they will be subject to prosecution for knowingly disturbing archaeological sites, or for collecting artifacts. If archaeological materials are discovered as a result of operations under this authorization, the permittee must immediately contact the appropriate BLM representative.

PALEONTOLOGY

Affected Environment: Pasture 8 of the Artesia allotment contains geological units which the BLM, Colorado State Office (COSO) has classified as ranging from Potential Fossil Yield Classification (PFYC) 5 as they have a very high occurrence of containing scientifically significant fossils down to PFYC 3b units, which have an unknown potential for containing significant fossils. No paleontological sites have been recorded in this allotment.

The allotment encompasses areas generally mapped as the following fossil-bearing formations (Tweto 1979):

- Weber Sandstone (PFYC 3b), which is not known to produce any scientifically significant fossils, but Ichnofossils may exist in eolian dune field deposits.

- Chinle, Moenkopi, and Park City Formations (PFYC 5), contain Triassic brachiopoda, ichnological traces, and evaporitic deposits, and may contain Permian-era fossils in the Park City Formation.
- The Glen Canyon Group (PFYC 5) has a largely unknown potential. The Navajo Sandstone within portions of the Glen Canyon Group has produced Jurassic vertebrate and invertebrate ichnofossils in dune deposits.
- Morrison, Entrada, Curtis, and Carmel Formations (PFYC 5), the Carmel Formation has produced mid to late Jurassic ammonites, the Curtis Formation has produced belemnites and microfossils, and the Morrison Formation is renowned for its Jurassic mammals, birds, dinosaurs, reptiles, amphibians, fish, invertebrates, and plants.
- Frontier Sandstone and Mowry Shale (PFYC 4), are strata which have the potential to produce larger vertebrates, though typically contain fish, marine invertebrates, freshwater invertebrates, various floras, and microfossils. Portions are likely to produce dinosaur bones, eggs, and ichnofossils, as well as Cretaceous mammals.
- Mancos Shale (PFYC 3a), which in and near the Piceance Basin, produces fish, invertebrates, ichnological traces, pollen, and plant fragments. Elsewhere, Mancos Shale is known to produce marine reptiles and duckbill dinosaurs.
- Segoe Sandstone, Buck Tongue of Mancos Shale, and Castlegate Sandstone (PFYC 3b), produce marine ichnological traces and possibly other marine fossils.

Environmental Consequences of the Proposed Action (Alternative A): In general, paleontological materials (fossils) are not considered to be endangered by normal grazing activities. Direct impacts to fossil materials may occur in areas of livestock concentration, however none currently exist on BLM administered land in this allotment. Direct impacts can include damage or destruction of fossils, and the disturbance of the stratigraphic context in which they are located. Since in situ fossils are seldom encountered in alluvial areas where cattle tend to concentrate, the potential for damage to undisturbed fossil remains is low. Indirect impacts may include soil erosion, gulying, and increased potential for unlawful collection and vandalism. The short time frame of pasture use should have the effect of decreasing any potential damage to existing fossil resources by decreasing the time frame for impacts on any given site.

Environmental Consequences of the No Action Alternative (Alternative B): Currently, the allotment is classified as a winter sheep allotment which has not seen use for the past eight years and would likely continue to remain in a non-use state for some time. Continuation of the current management alternative would be virtually identical to consequences addressed in the no grazing alternative.

Environmental Consequences of the No Grazing Alternative (Alternative C): Direct and indirect impacts to paleontological resources from grazing activities would cease. Exposed fossil materials would still be subject to cultural and natural processes. These include any activities directly or indirectly caused by humans, and chemical, physical, and biological processes of the natural environment.

Mitigation: The permittee is responsible for informing all persons who are associated with the allotment operations that they will be subject to prosecution for disturbing or collecting vertebrate fossils, collecting large amounts of petrified wood (over 25lbs./day, up to

250lbs./year), or collecting fossils for commercial purposes on public lands. If any paleontological resources are discovered as a result of operations under this authorization, the permittee must immediately contact the appropriate BLM representative.

ELEMENTS NOT PRESENT OR NOT AFFECTED:

No flood plains, wild horses, or prime and unique farmlands exist within the area affected by the Proposed Action. There are no known Native American religious concerns associated with the Proposed Action. Should future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken. There is also no environmental justice concerns associated with the Proposed Action.

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

Other Element	NA or Not Present	Applicable or Present, Not Brought Forward for Analysis	Applicable & Present and Brought Forward for Analysis
Visual Resources		X	
Fire Management		X	
Forest Management	X		
Hydrology/Water Rights		X	
Rangeland Management			X
Realty Authorizations		X	
Recreation			X
Access and Transportation		X	
Geology and Minerals	X		
Areas of Critical Environmental Concern	X		
Wilderness			X
Wild and Scenic Rivers	X		
Cadastral	X		
Socio-Economics		X	
Law Enforcement		X	

RANGELAND MANAGEMENT

Affected Environment: Red Wash Ranch LLC has made application for the grazing preference and permit issuance for what is currently known as Pasture 8 of the Artesia (06308) grazing allotment. This allotment is currently permitted as a winter sheep allotment, and approval of the Proposed Action would change this allotment to a spring cattle allotment. This Pasture of the Artesia allotment has not been used in eight years, and mid to late seral plant communities within the allotment have shown improvement in plant vigor, production of reproductive seed heads, and recruitment of new individuals. The 1997 WRFO ROD/RMP has a minimum rest requirement for this allotment of 3/15 - 6/1 one in two years.

Tables 11-18 are individual Livestock Grazing Capacity tables, which are broken down by surface ownership (BLM, private, State of Colorado), soil units, and Acres/Animal Unit Month (AUM) for the allotment. An AUM is the amount of forage necessary for the sustenance of one cow-calf pair for a period of one month. The tables show estimated carrying capacity (AUMs) of livestock for the proposed pastures within Pasture 8 of the Artesia allotment. The Percent Public Land (% PL), which is the percentage of BLM AUMs in relation to total AUMs, was determined for each proposed Pasture within the allotment. Red Wash Ranch LLC submitted a *Grazing Application* that was developed with the BLM, and the Livestock Grazing Capacity (see tables below) analysis of forage production, were used to determine the rangeland’s available forage contribution (AUMs), even though in certain instances the estimated grazing capacity exceeds that within the *Grazing Application for Permit Renewal* and Proposed Action. Reasons for the higher livestock carrying capacity AUMs are that the application and Proposed Action take into consideration such factors as available water distance from water to foraging areas, cattle distribution, season of use, and herding practices.

Also, these tables are based upon a moderate stocking level that is generally less than the stocking rates recommended by the Natural Resources Conservation Service (NRCS) for the specific ecological sites. The reason for this is in consideration of a moderate stocking level that meets Public Land Health Standards in relation to the rangeland’s carrying capacity and current rangeland conditions.

Table 11: AUM Breakdown of BLM Lands within the Proposed Highway Pasture

PROPOSED HIGHWAY PASTURE-BLM				
Soil Unit	Ecological Site	BLM Acres	Acres/AUM	BLM AUMs
Rock outcrop-Torriorthents complex, 50-75percentslope	---	568	0	0
Massadona silty clay loam, 0-12percentslope	Clayey Loam	112	10	11
Deaver-Chipeta complex, 3-35percentslope	Clayey Salt-desert	567	15	38
Eghelm loamy fine sand, 0-3percentslope	Salt-desert Overflow	102	5	20
Total		1349		69

Table 12: AUM Breakdown of Private Lands within the Proposed Highway Pasture

PROPOSED HIGHWAY PASTURE-PRIVATE				
Soil Unit	Ecological Site	Private Acres	Acres/AUM	Private AUMs
Rock outcrop-Torriorthents complex, 50-75percentslope	---	209	0	0
Massadona silty clay loam, 0-12percentslope	Clayey Loam	161	12	13
Deaver-Chipeta complex, 3-35percentslope	Clayey Saltdesert	270	20	14
Eghelm loamy fine sand, 0-3percentslope	Saltdesert Overflow	81	5	16
Pavillion-Degater complex, 3-20percentslope	Semidesert Loam	33	12	3
Total		754		46
Total AUMs Highway Pasture		115		
%PL Highway Pasture		60percent		

Table 13: AUM Breakdown of BLM Lands within the Proposed Moosehead Pasture

PROPOSED MOOSEHEAD PASTURE-BLM				
Soil Unit	Ecological Site	BLM Acres	Acres/AUM	BLM AUMs
Rock outcrop-Torriorthents complex, 50-75percentslope	---	546	0	0
Almy loam, 3-15percentslope	Rolling Loam	33	15	2
Eghelm loamy fine sand, 0-3percentslope	Saltdesert Overflow	99	5	20
Schooner-Rock outcrop complex, 5-45percentslope	Sandy Juniper	870	16	54
Total		1548		76

Table 14: AUM Breakdown of Private Lands within the Proposed Moosehead Pasture

PROPOSED MOOSEHEAD PASTURE-PRIVATE				
Soil Unit	Ecological Site	Private Acres	Acres/AUM	Private AUMs
Rock outcrop-Torriorthents complex, 50-75percentslope	---	220	0	0
Eghelm loamy fine sand, 0-3percentslope	Saltdesert Overflow	217	5	43
Total		437		43
Total Moosehead Pasture AUMs		119		
% PL MOOSHEAD PASTURE		64%		

Table 15: AUM Breakdown of BLM Lands within the Proposed Red Wash Pasture

PROPOSED RED WASH PASTURE-BLM				
Soil Unit	Ecological Site	BLM Acres	Acres/AUM	BLM AUMs
Eghelm loamy fine sand, 0-3percentslope	Saltdesert Overflow	99	3	33
Schooner-Rock outcrop complex, 5-45percentslope	Sandy Juniper	48	8	6
Rock outcrop-Torriorthents complex, 50-75percentslope	---	799	0	0
Total		946		39

Table 16: AUM Breakdown of Private Lands within the Proposed Red Wash Pasture

PROPOSED RED WASH PASTURE-PRIVATE/STATE				
Soil Unit	Ecological Site	Private Acres	Acres/AUM	Private AUMs
Rock outcrop-Torriorthents complex, 50-75percentslope	---	237	0	0
Eghelm loamy fine sand, 0-3percentslope	Saltdesert Overflow	57	5	11
Total		294		11
		Total Red Wash Pasture AUM's	50	
		%PL Red Wash Pasture	78%	

Table 17: AUM Breakdown of BLM Lands within the Proposed State Pasture

PROPOSED STATE PASTURE-BLM				
Soil Unit	Ecological Site	BLM Acres	Acres/AUM	BLM AUMs
Rock outcrop-Torriorthents complex, 50-75percentslope	---	449	0	0
Eghelm loamy fine sand, 0-3percentslope	Saltdesert Overflow	55	5	11
Schooner-Rock outcrop complex, 5-45percentslope	Sandy Juniper	16	15	1
Total		520		12

Table 18: AUM Breakdown of Private/State Lands within the Proposed State Pasture

PROPOSED STATE PASTURE-PRIVATE/STATE				
Soil Unit	Ecological Site	Private Acres	Acres/AUM	Private AUMs
Rock outcrop-Torriorthents complex, 50-75percentslope	---	556	0	0
Eghelm loamy fine sand, 0-3percentslope	Saltdesert Overflow	102	2	51
Schooner-Rock outcrop complex, 5-45percentslope	Sandy Juniper	9	20	0
Total		667		51
Total AUMs State Pasture		63		
%PL State Pasture		19%		

Environmental Consequences of the Proposed Action (Alternative A): Refer to the Vegetation section of this document for an analysis of rangeland vegetation impacts. As shown in the vegetation section, the Proposed Action will maintain land health standards on areas currently meeting, while allowing the permittee to get some use on the annual invasive cheatgrass in the early part of the spring. The purpose of this plan is to try to get light utilization between 20-40 percent which is less than the 40-60 percent described in the White River ROD/RMP. To accomplish this, very few AUM's were allocated in many of the Pastures. Below is a table outlining AUMs/acre by pasture.

Table 19: Summary of Acres/AUM by Pasture

PASTURE NAME	ALLOCATED AUMs	ACRES	ACRE/AUM
Highway	112	2103	18.7
Moosehead	99	1985	20
State	66	1187	18
Redwash	46	1240	27

On average, it was calculated that there was 1 AUM for every 20 acres. These calculations took into account topography, distance to water, and the ecological site. AUMs were calculated with the plan of having light use on the allotment between 20-40percent knowing most of the use would occur during the spring critical growing season.

The proposed four Pasture rotation, combined with light grazing use and a short grazing season, should maintain and continue to improve rangeland conditions in mid to late seral plant communities. Pastures used early in the season will have ample time for spring re-growth due to short light grazing while allowing livestock to use the cheatgrass. A shorter grazing period also helps to reduce repeated cattle grazing on an individual forage plants. Therefore, the Proposed Action would continue to give vegetation an opportunity for seed production, replenishment of root reserves, biomass accumulation, and plant propagation.

Proposed livestock use (AUMs) is within the livestock grazing capacity for the allotment for grazing at a light level. The alternate year rotational system has been developed to minimize

grazing during the vegetative community's critical growing season every other year, thereby aiding in plant growth and reproduction capabilities. The two year AUM average is within the livestock grazing capacity thus allowing for full replenishment of plant loss during grazing over the two year rotational cycle.

Throughout the transfer and permit issuance process, the BLM and grazing permittee worked together to develop a grazing schedule that would minimize hardships on the permittee while making progress towards meeting public land health standards and the White River ROD/RMP. Monitoring will take place on the grazing allotment through utilization measurements and reading of the long-term trend plots to ensure that the proposed management would meet BLM management objectives. If it appears this management strategy is not working, further adjustments will be made and analyzed in a separate National Environmental Policy Act (NEPA) document.

Environmental Consequences of the Continuation of Current Management (Alternative B): The continuation of current management alternative would result in the project area remaining as Pasture 8 of the Artesia allotment. This allotment is currently permitted as a sheep allotment in the winter for Morapos Sheep Company. Morapos Sheep Company has not made use on this allotment in eight years because the only portion of the Pasture they currently have access to is in Section 4 of Township 3 North, Range 102 West. Access to the rest of the allotment is restricted by fences around private property owned by Red Wash Ranch LLC. The majority of the Artesia allotment is south Highway 40, and moving sheep across the highway to Section 4 is a lot of work for very little grazing. It is anticipated that if the continuation of current management alternative is selected, essentially no use would take place on Pasture 8.

The Morapos Sheep Company permit was analyzed in 2007, and all grazing practices meet the White River ROD/RMP. The grazing permit does meet all rest/deferment requirements, and utilization is targeted at 40-60 percent. If Morapos Sheep Company was to use this area, it is anticipated that rangelands will continue to meet and/or exceed land health standards.

Environmental Consequences of the No Grazing Alternative (Alternative C): Under this alternative, grazing would not be authorized on BLM lands within the allotment. This alternative would require the cancellation of the Morapos Sheep Company permit as well and not authorizing Red Wash Ranch LLC to graze livestock on BLM lands within the project area. Privately controlled forage accounts for 43 percent of the total forage on Pasture 8 of the Artesia allotment, therefore the grazing permittee would have to fence all private lands to utilize this forage potentially creating an economic hardship on the permittee. This alternative would also not be in compliance with the White River ROD/RMP decision to provide for livestock grazing as one of the acceptable multiple uses.

Mitigation: None.

RECREATION

Affected Environment: The Proposed Action occurs within the White River Extensive Recreation Management Area (ERMA). The BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing, and off-highway vehicle use. Two Wilderness Study Areas (WSAs), Skull Creek and Willow Creek, fall within the project area. These areas are managed in such a way so as to provide for solitude and primitive and unconfined types of recreation. No motorized or mechanized vehicle use is permitted in the WSAs.

The project area falls within areas zoned as Semi-Primitive Non-Motorized and Semi-Primitive Motorized under the Recreation Opportunity Spectrum (ROS) in the White River ROD/RMP. The Semi-Primitive Non-Motorized classification allows for some opportunity for isolation from man-made sights, sounds, and management controls in a predominantly unmodified environment. There is also the opportunity to have a high degree of interaction with the natural environment, to have moderate challenge and risk and to use outdoor skills. Overall the concentration of visitors is low, but evidence of users is often present. On-site managerial controls are subtle, facilities are provided for resource protection and the safety of users and motorized use is prohibited. The Semi-Primitive Motorized classification is nearly identical as the Semi-Primitive Non-Motorized; however motorized travel is permitted in these areas.

The Proposed Action is located within the CDOW Game Management Unit (GMU) 10 which is an exceptionally high quality and popular big game trophy hunting area where hunters have good opportunities to pursue both mule deer and elk. Big game hunting is a very popular activity in this area during the fall months.

Environmental Consequences of the Proposed Action (Alternative A): The change from sheep grazing to cattle grazing is not anticipated to cause any major, long-term impacts to recreation in the project area. Although sheep grazing in the project area has been dormant for the last eight years, and recreationists have likely become accustomed to a lack of livestock in the area, the re-introduction of livestock is consistent with historic uses. The potential for conflict may exist during big game hunting season if cattle were to be allowed to graze in the fall, in areas of high use by recreational hunters, and their presence begins to impact the quality of hunting or access to big game. However, the likelihood of these impacts occurring is small and the project is not expected to cause any major foreseeable negative affects to existing recreation.

Environmental Consequences of the No Action Alternative (Alternative B): Continuation of current management would keep this allotment as a winter sheep allotment rather than a conversion to cattle grazing. Since the permittee has not used this allotment for the last eight years due to logistical issues, it is anticipated that they would continue to not use the area. Essentially under this alternative, non-use would occur on the pasture, and impacts would be similar to the No Grazing Alternative.

Environmental Consequences of the No Grazing Alternative (Alternative C): Non-use on the pasture would create the most ideal situation for recreation as it would reduce the potential for user conflict on public lands.

Mitigation: None.

WILDERNESS

Affected Environment: Both the Skull Creek Wilderness Study Area (WSA) and the Willow Creek WSA would be affected by this Proposed Action. Approximately 2,101 acres of the Willow Creek WSA and approximately 2,179 acres of the Skull Creek WSA are within the Artesia allotment Pasture 8.

Environmental Consequences of the Proposed Action: Although the Pasture has been previously permitted for sheep grazing, it has been dormant for this activity for eight years, allowing wilderness characteristics to slowly return and allow the parcels to slowly revert towards a more primitive condition. Any forthcoming use on these parcels would halt the return of the area to more primitive conditions. However, both sheep and cattle grazing on this allotment are historic uses and a return to grazing would be consistent with these historic uses and are not expected to jeopardize the wilderness values for which these parcels were originally nominated. Additionally, as illustrated in the vegetation section, implementation of the one in two year rotation along with utilization targets between 20-40 percent will maintain/continue to improve vegetative communities in the Pasture that are currently meeting land health standards. This limited utilization is expected to contribute overall to helping not to impair wilderness resources.

All other wilderness values such as naturalness, solitude, and opportunities for primitive and unconfined recreation will continue to persist at the same levels as identified in the initial wilderness inventory.

Environmental Consequences of the No Action Alternative: Continuation of current management would keep this allotment as a winter sheep allotment rather than a conversion to cattle grazing. Since the permittee has not used this allotment for the last eight years due to logistical issues, it is anticipated that they would continue to not use the area. Essentially under this alternative, non-use would occur on the pasture and impacts would be similar to the No Grazing Alternative.

Environmental Consequences of the No Grazing Alternative: Non-use on the Pasture would create the most ideal situation for the WSAs as it would allow the areas to slowly return to a more primitive state and thus preserve wilderness characteristics and values in perpetuity.

Mitigation:

1. Ground disturbing activities shall be allowed to treat non-native species within the WSAs only if it is determined they are necessary to maintain the natural ecological condition of the WSA and will not impair the wilderness values for which the WSA was established.
2. The construction of any new temporary or permanent livestock developments within the WSAs must be for the purpose of enhancement of wilderness values

and are substantially unnoticeable. Livestock enhancements must meet the criteria set forth in BLM Manual H-8550-1 and will be allowed only upon consultation with the White River Field Office Wilderness Specialist and an appropriate NEPA analysis.

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts from the Proposed Action and the No Action Alternative would not exceed those discussed in the White River ROD/RMP and/or White River Area Grazing Management Environmental Impact Statement.

REFERENCES CITED:

Binford, Lewis R.

1981 Behavioral archaeology and the "Pompeii Premise". *Journal of Anthropological Research* 37(3):195-208.

Broadhead, Wade

2001 *Brief Synopsis of Experiments Concerning Effects of Grazing on Archaeological Sites*. Ms. on file, Bureau of Land Management, Gunnison Field Office, Gunnison, Colorado.

Osborn, Alan, Susan Vetter, Ralph Hartley , Laurie Walsh, Jesslyn Brown

1987 *Impacts of Domestic Livestock Grazing in the Archaeological Resources of Capitol Reef National Park, Utah. Occasional Studies in Anthropology No. 20*. Ms. on file, Midwest Archaeological Center, Lincoln, Nebraska.

Schiffer, Michael B.

1987 *Formation Processes of the Archaeological Record* Formation Processes of the Archaeological Record. University of New Mexico Press, Albuquerque.

Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

PERSONS / AGENCIES CONSULTED: Red Wash Ranch LLC
Morapos Sheep Company

INTERDISCIPLINARY REVIEW: The Proposed Action was presented to, and reviewed by the White River Field Office interdisciplinary team on May 20, 2011.

Name	Title	Area of Responsibility	Date Signed
Bob Lange	Hydrologist and Soil/Water/Air Lead	Air Quality, Wastes (Hazardous or Solids), Water Quality (Surface and Ground), and Hydrology/Water Rights.	05/12/2011
Matthew Dupire	Rangeland Management	Areas of Critical Environmental	05/11/2011

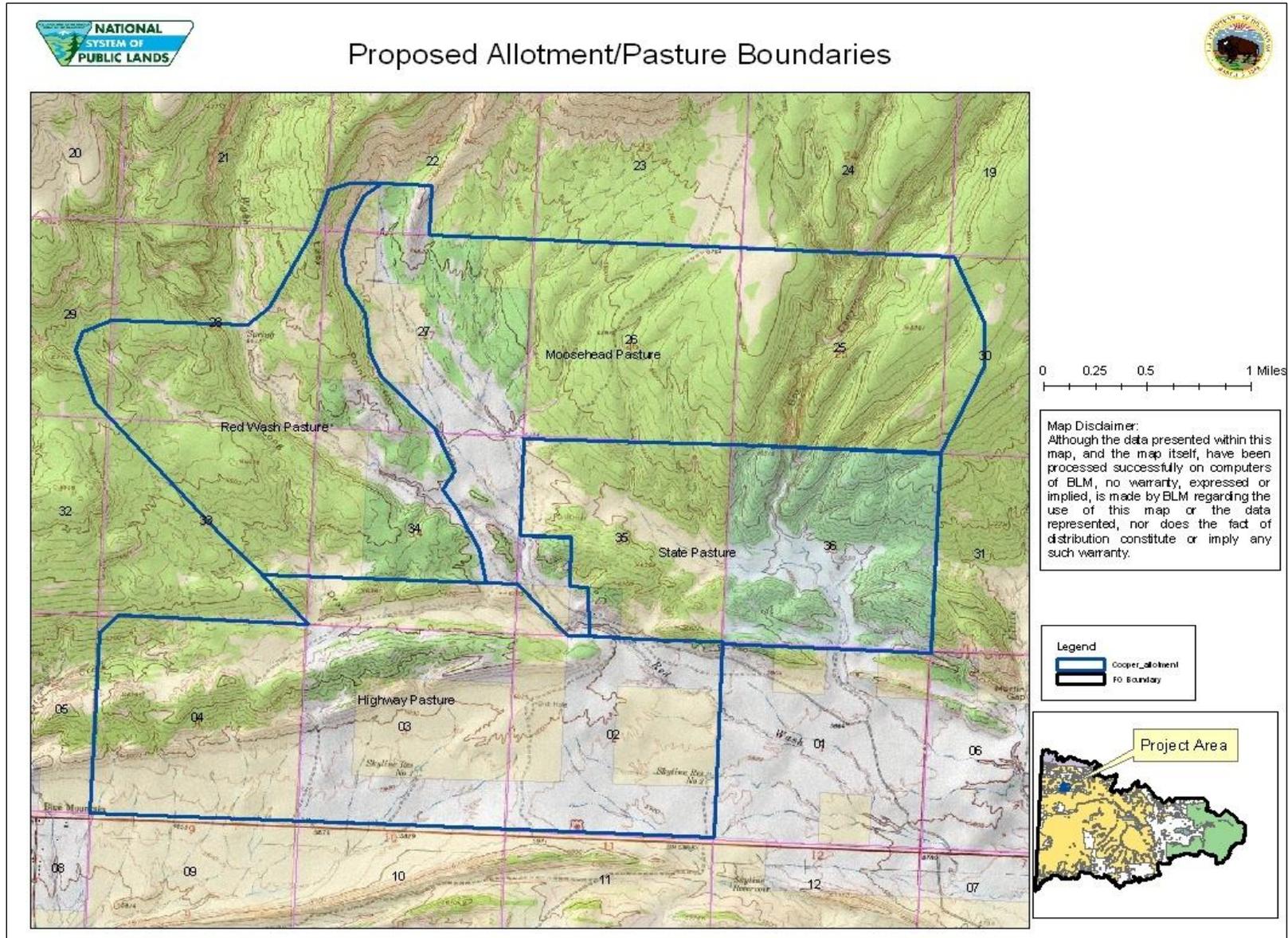
Name	Title	Area of Responsibility	Date Signed
	Specialist	Concern, Threatened and Endangered Plant Species	
Kristin Bowen	Archaeologist	Cultural Resources, Paleontological Resources	04/29/2011
Matthew Dupire	Rangeland Management Specialist	Invasive, Non-Native Species, Vegetation , Rangeland Management, Wild Horse Management, Soils	05/12/2011
Lisa Belmonte	Wildlife Biologist	Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Terrestrial and Aquatic Wildlife, Wetlands and Riparian Zones	05/11/2011
Chad Schnackenberg	Outdoor Recreation Planner	Wilderness, Access and Transportation, Recreation, Visual Resources	05/20/2011
Jim Michels	Forester /Fire / Fuels Technician	Fire Management, Forest Management	05/03/2011
Paul Daggett	Mining Engineer	Geology and Minerals	05/03/2011
Stacey Burke	Realty Specialist	Realty Authorizations	05/09/2011

NAME OF PREPARER: Matthew Dupire

NAME OF ENVIRONMENTAL COORDINATOR: Heather Sauls

ATTACHMENTS: Figure 1: Proposed allotment boundary and Pastures

Figure 1: Proposed Allotment Boundary and Pastures



**U.S. Department of the Interior
Bureau of Land Management
White River Field Office**

**Finding of No Significant Impact (FONSI)
DOI-BLM-CO-110-2011-0069-EA**

BACKGROUND

The Proposed Action is to create a new livestock grazing allotment out of Pasture 8 of the Artesia Allotment. The new allotment will be divided into the Moosehead, Highway, State, and Red Wash Pastures and will be permitted for spring grazing use by cattle.

FINDING OF NO SIGNIFICANT IMPACT

Based upon a review of the EA and the supporting documents, I have determined that the Proposed Action is not a major federal action and will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27 and do not exceed those effects as described in the White River Record of Decision and Approved Resource Management Plan (1997). Therefore, an environmental impact statement is not required. This finding is based on the context and intensity of the project as described below.

Context

The project is a site-specific action directly involving BLM administered public lands that do not in and of itself have international, national, regional, or state-wide importance. The applicant, Red Wash LLC, owns the private property within the boundaries of Pasture 8 of the Artesia Allotment. Due to logistical constraints to the current permittee has taken non-use of this Pasture for the last eight years and as a result the applicant has made application for the grazing preference.

Intensity

The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this Proposed Action:

1. Impacts that may be both beneficial and adverse.

The beneficial effects of the Proposed Action include support of the local livestock industry and increased stewardship of public lands. The authorized livestock operator has mandatory terms and conditions that must be met to maintain their grazing preference. This provides a certain level of stewardship of public lands in that if these lands were to become degraded by any activity or event, natural or human in origin, grazing and or other authorized uses would be terminated. This stewardship role of the livestock operator not only mandates proper livestock and forage management but also provides communication with the BLM as to other activities or events that could cause degradation to public lands. Adverse effects include minor impacts to soils and vegetation that will be limited in scope and are expected to be insignificant.

2. The degree to which the Proposed Action affects public health or safety.

There would be no impact to public health and safety.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

There are no park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas in the area of Proposed Action. The proposed allotment does include the Skull Creek and Willow Creek WSAs however values such as naturalness, solitude, and opportunities for primitive and unconfined recreation will continue to persist at the same levels as identified in the initial wilderness inventory.

4. Degree to which the possible effects on the quality of the human environment are likely to be highly controversial.

Livestock grazing has occurred for many years on the other Pastures of the Artesia Allotment and surrounding areas. The White River ROD/RMP recommends a rest rotation for this allotment from 3/15 through 6/1 every other year. While the Proposed Action does not fully implement this, the maximum annual use within the Pastures would range from 10 to 17 days out of the total 79 days of the recommended rest rotation. Thus, the Proposed Action is similar to what has been recommended for this allotment and a change from winter sheep use to spring cattle use is not expected to generate controversy.

5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk.

No highly uncertain or unknown risks to the human environment were identified during analysis of the Proposed Action.

6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Proposed Action neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration. Livestock grazing of the proposed allotment has been evaluated since at least the 1981 Grazing Management EIS.

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

No individually or cumulatively significant impacts were identified for the Proposed Action. Any adverse impacts identified for the Proposed Action, in conjunction with any adverse impacts of other past, present, or reasonably foreseeable future actions will result in negligible impacts to natural and cultural resources.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

While there is a fairly high potential of finding sites within this allotment, there are no livestock concentration areas on BLM administered lands so no loss or destruction to these resources is anticipated.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973.

The only listed species with the potential to occur within the allotment is the reintroduced black-footed ferret which is managed as an experimental, non-essential population (Section 10j of the ESA). The allotment is located approximately 10 miles west of the eastern edge of the Wolf Creek Management Area and it is expected that ferrets would make minimal (if any) use of the allotment due to the low density of white-tailed prairie dogs available as a prey base. The Proposed Action is expected to have No Effect on ferrets.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Neither the Proposed Action nor impacts associated with it violate any laws or requirements imposed for the protection of the environment.

SIGNATURE OF AUTHORIZED OFFICIAL:



Field Manager

DATE SIGNED:

08/03/2011



**U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 East Market Street
Meeker, CO 81641**

CO-110 (WRFO)
Sec 3. CF

Certified Mail No. 7010 2780 0001 8025 2489
Return Receipt Requested

August 3, 2011

Red Wash Ranch LLC
C/o Howard Cooper
PO Box 1910
Vail, CO 81658

NOTICE OF PROPOSED DECISION

Dear Mr. Cooper:

Bureau of Land Management (BLM) White River Field Office (WRFO) has received your application for a grazing preference transfer and permit issuance on Pasture 8 of the Artesia Allotment (06308). The application has been reviewed for conformance with 43 CFR 4110.1(b)(2)(i), 4110.1(b)(2)(ii), and 4110.1(b)(2)(iii).

The proposed grazing schedule developed by yourself and WRFO was reviewed and analyzed during the permit issuance process. Land health assessments, field observations, and other information was evaluated and reviewed for this allotment. Information provided by you through consultation was also considered in development of the proposed grazing permit.

To comply with the National Environmental Policy Act of 1969, as amended, this office conducted an Environmental Assessment (EA) for the issuance of a new grazing permit to analyze and determine whether or not significant impacts would result from implementation of the proposed grazing permit. This review has now been completed in an Environmental Assessment which analyzed the proposed grazing programs as developed by BLM and yourselves. The EA resulted in a Finding of No Significant Impact. A copy of EA DOI-BLM-CO-110-2011-0069 is on file at the WRFO. The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3): White River Record of Decision and Approved Resource Management Plan (ROD/RMP), approved: July 1, 1997, pages 2-10 through 2-14, 2-22 through 2-26.

The EA analyzed three alternatives: The Proposed Action (Alternative A), The Continuation of Current Management (Alternative B), and a No Grazing Alternative (Alternative C). The BLM is mandated by regulations to take appropriate action as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management practices or levels of grazing on public lands are significant factors in failing to achieve the Public Land Health Standards and conform with the Colorado Livestock Grazing Management Guidelines (43 C.F.R. 4180.2(c)).

Below is a brief description of Alternatives A and B in the environmental assessment. Alternative A is a grazing schedule developed to maintain areas currently meeting land health standards or maintain a trajectory towards meeting land health standards. It involves the implementation of a four pasture rotation in the spring and takes into consideration the deferment requirements of the White River Field Office 1997 Record of Decision/Resource Management Plan (WRFO ROD/RMP) (D-14). Alternative A addresses the number of livestock, season of use, duration, frequency, and intensity of grazing use to minimize impacts to vegetation and rangeland health (Guideline 2). The tables below outline Alternative A:

ODD YEAR GRAZING SCHEDULE ON THE PROPOSED ALLOTMENT									
Allotment		Livestock		Grazing Period					
Name	Pasture	Number	Kind	Begin	End	% PL	Type Use	Total AUMs	BLM AUMs
Cooper	Highway	200	Cattle	4/1	4/17	60	Active	112	67
Cooper	Moosehead	200	Cattle	4/18	5/2	64	Active	99	63
Cooper	State	200	Cattle	5/3	5/12	12	Active	63	8
Cooper	Red Wash	200	Cattle	5/13	5/19	85	Active	46	39

EVEN YEAR GRAZING SCHEDULE ON THE PROPOSED ALLOTMENT									
Allotment		Livestock		Grazing Period					
Name	Pasture	Number	Kind	Begin	End	%PL	Type Use	Total AUMs	BLM AUMs
Cooper	State	200	Cattle	4/1	4/17	60	Active	112	67
Cooper	Highway	200	Cattle	4/18	5/2	64	Active	99	63
Cooper	Moosehead	200	Cattle	5/3	5/12	12	Active	66	8
Cooper	Red Wash	200	Cattle	5/13	5/19	85	Active	46	39

Alternative B is your proposed schedule and is a continuation current grazing management with the addition of lambing use from 4/1 to 5/20 on the Artesia allotment. There is no built in rest or deferment for spring use on the Little Toms Draw or Artesia allotments. This alternative makes no progress towards meeting the rest/deferment requirements in the 1997 ROD/RMP and actually implements lambing on the Artesia allotment without any type of spring rest/deferment. The table below outlines the grazing schedule for alternative B.

ALLOTMENT		LIVESTOCK		GRAZING PERIOD				
Number	Name	Number	Kind	Begin	End	percent PL	Type Use	AUMs
06308	Artesia	4321	Sheep	12/1	2/28	100	Active	2557
06308	Artesia	4182	Sheep	3/1	4/1	100	Active	880

PROPOSED DECISION

In conformance with 43 CFR 4160.1, my proposed decision is to implement the Proposed Action (Alternative A), as mitigated in EA number DOI-BLM-CO-110-2011-0069-EA for authorization of livestock grazing use on Pasture 8 of the Artesia Allotment for a period of 10 years expiring on February 28, 2021 as supported by 43 CFR 4130.2(d)(3)].

Grazing Permit Terms and Conditions: The following terms and conditions as required by 43 CFR 4130.3 would be included in the grazing permit issued under this alternative:

1. It is unlawful for the permittee, 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 permittee is to stop activities that might disturb such materials, and notify the authorized officer immediately.
2. The permittee or 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 in 43 CFR 4130.3-2(h).
3. Grazing permit or lease terms and conditions and the fees charged for grazing use are established in accordance with the provisions of the grazing regulations now or here after approved by the Secretary of the Interior.
4. They are subject to cancellation, in whole or in part, at any time because of:
 - a. Noncompliance by the permittee/lessee with rules and regulations.
 - b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based.
 - c. A transfer of grazing preference by the permittee/lessee to another party.
 - d. A decrease in the lands administered by the Bureau of Land management within the allotment(s) described.
 - e. Repeated willful unauthorized grazing use.
5. They are subject to the terms and conditions of allotment management plans if such plans have been prepared. Allotment management plans MUST be incorporated in permits or leases when completed.
6. The permittee shall submit an Actual Use form within 15 days after completing their annual grazing use as outlined in 43 CFR 4130.3-2(d).

7. Livestock use will occur as outlined in the Grazing Schedule in the Proposed Action portion of the Environmental Assessment document DOI-BLM-CO-110-2011-0069EA that analyzes grazing in Pasture 8 of the Artesia allotment in accordance with 43 CFR 4120.2(d).
8. Those holding permits or leases MUST own or control and be responsible for the management of livestock authorized to graze.
9. The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze.
10. 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).
11. The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.
12. Grazing permits or leases are subject to the nondiscrimination clauses set forth in the Executive Order 11246 of September 24, 1964, as amended. A copy of this order may be obtained from the authorized officer.
13. Livestock grazing use that is different from that authorized by a permit or lease MUST be applied for prior to the grazing period and MUST be filed with and approved by the authorized officer before grazing use can be made.
14. Billing notices are issued which specify fees due. Billing notices, when paid, become a part of the grazing permit or lease. Grazing use cannot be authorized during any period of delinquency in the payment of amounts due, including settlement for unauthorized use.
15. Grazing fee payments are due on the date specified on the billing notice and MUST be paid in full within 15 days of the due date, except as otherwise provided in the grazing permit or lease. If payment is not made within that time frame, a late fee (the greater of \$25 or 10 percent of the amount owed but not more than \$250 will be assessed).
16. No Member of, or Delegated to, Congress or Resident Commissioner, after his/her election of appointment, either before or after he/she has qualified, and during his/her continuance in office, and no officer, agent, or employee of the Department of the Interior, other than members of Advisory committees appointed in accordance with the Federal Advisory Committee Act (5 U.S.C. App.1) and Sections 309 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) shall be admitted to any share or part in a permit or lease, or derive any benefit to arise therefrom; and the provision of Section 3741 Revised Statute (41 U.S.C 22), 18 U.S.C. Sections 431-433,

and 43 CFR Part 7, enter into and form a part of a grazing permit or lease, so far as the same may be applicable.

This proposed decision is being issued to you as an affected party under authority of 43 CFR 4160.1, and as qualified applicants under 4130.2(a) and (e). Changes being made to the existing permit, in the proposed grazing schedule are supported by regulation 43 CFR 4180.1(a) and (b) and 4180.2(c) which direct the authorized officer to take appropriate action as soon as practicable but not later than the next grazing year upon determination that existing grazing management needs to be modified to ensure the Fundamentals of Rangeland Health and Standards and Guidelines are being met. Proposed changes are also supported by 43 CFR 4180.2 (e) (1-7) and (10-12). Proposed decreases in permitted use are addressed in 43 CFR 4110.3-2(b). The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3); White River Record of Decision and Approved Resource Management Plan (ROD/RMP), approved: July 1, 1997, pages 2-10 through 2-14, 2-22 through 2-26.

RIGHT OF PROTEST AND/OR APPEAL

Any applicant, permittee, lessee or other interested public may protest a proposed decision under Sec. 43 CFR 4160.1 and 4160.2, in person or in writing to Kent Walter, Field Manager White River Field Office, 220 E. Market Street, Meeker, CO 81641 within 15 days after receipt of such decision. The protest, if filed, should clearly and concisely state the reason(s) why the proposed decision is in error.

In accordance with 43 CFR 4160.3 (a), in the absence of a protest, the proposed decision will become the final decision of the authorized officer without further notice unless otherwise provided in the proposed decision.

In accordance with 43 CFR 4160.3 (b) upon a timely filing of a protest, after a review of protests received and other information pertinent to the case, the authorized officer shall issue a final decision.

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final decision may file an appeal (in writing) in accordance with 43 CFR 4.470 and 43 CFR 4160.4. The appeal must be filed within 30 days following receipt of the final decision or within 30 days after the date the proposed decision becomes final. The appeal may be accompanied by a petition for a stay of the decision in accordance with 43 CFR 4.471 pending final determination on appeal. The appeal and petition for a stay must be filed in the office of the authorized officer, as noted above. The person/party must also serve a copy of the appeal on the Office of the Solicitor, Rocky Mountain Region, Denver Field Office, U.S. Department of the Interior, 755 Parfet Street, Room 151, Lakewood, CO 80215.

The appeal shall state the reasons, clearly and concisely, why the appellant thinks the final decision is in error and otherwise complies with the provisions of 43 CFR 4.470.

Should you wish to file a petition for a stay, see 43 CFR 4.471 (a) and (b). In accordance with 43 CFR 4.471(c), a petition for a stay must show sufficient justification based on the following standards:

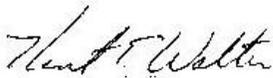
- (1) The relative harm to the parties if the stay is granted or denied.
- (2) The likelihood of the appellant's success on the merits.
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

As noted above, the petition for stay must be filed in the office of the authorized officer and served in accordance with 43 CFR 4.471.

Any person named in the decision who receives a copy of a petition for a stay and/or an appeal, see 43 CFR 4.472(b) for procedures to follow if you wish to respond

If you have any questions, contact either Matt Dupire at 878-3839, or myself at 878-3800.

Sincerely,

A handwritten signature in black ink, appearing to read "Kent E. Walter". The signature is written in a cursive, slightly slanted style.

Kent E. Walter
Field Manager