

**United States Department of the Interior
Bureau of Land Management**

**Environmental Assessment
for the
Black Ridge 2010 Sage Grouse Habitat
Improvement Project**

McInnis Canyons National Conservation Area
2815 H Road
Grand Junction, Colorado 81506

DOI-BLM-CO-134-2010-0084-EA

September 2010



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CHAPTER 1

1.1 INTRODUCTION

Glade Park and Piñon Mesa in western Colorado supports a population of Gunnison Sage Grouse. The Piñon Mesa Gunnison Sage Grouse Conservation Plan was approved in May of 2000. This plan identified the loss of sagebrush habitat as the most threatening factor to the survival of sage grouse in this area. Piñon-Juniper (PJ) encroachment and loss of herbaceous plant diversity were two of the primary reasons leading to the loss of open sagebrush parks. Since the year 2000 several thousand acres both on BLM and private land have been treated to maintain open sagebrush parks with adequate herbaceous cover. In the past several years field observations have shown the sage grouse are expanding their past use areas and moving to the mid and lower elevations controlled by BLM. This project is one of several projects scheduled to improve the habitat in these mid-elevation sites. Objectives for this treatment are consistent with habitat objectives identified within the conservation plan. These areas have been identified as Potential sage grouse habitat by the Colorado Division of Wildlife (CDOW) who is a partner in this project. This project is in the McInnis Canyons National Conservation Area (NCA). Impacts from similar mechanical treatments were analyzed in CO-130-2005-045-EA Glade Park Wildland Interface (WUI) Scattered Parcels but the primary focus was on the use of rollerchopping, another form of vegetative manipulation. An EA from 2009 analyzed the impacts of a Dixie harrow treatment in the Twentyeight hole area (DOI-BLM-CO-134-2009-0083-EA).

NUMBER: DOI-BLM-CO-134-2010-0084-EA

CASEFILE/PROJECT NUMBER:

PROJECT NAME: Black Ridge 2010 Sage Grouse Habitat Improvement Project

PLANNING UNIT: McInnis Canyons National Conservation Area

APPLICANT: BLM

1.2 PROJECT LOCATION AND LEGAL DESCRIPTION

Sixth PM, Township 11 South, Range 102 West, Section's 20, 21, 22, 29, 28, 27, 26, 33, 34, and 35. Mesa County, Colorado (See attached map)

The proposed project is located on the Battleship Rock USGS Quadrangle.

1.3 PURPOSE AND NEED

The proposed project will reduce the density of sagebrush and crested wheatgrass while seeding and preparing a seedbed for the desired grasses and forbs seeded. Attainment of this objective will

improve the area for Gunnison Sage Grouse habitat as well as overall rangeland health. Currently the area is dominated by sagebrush and crested wheatgrass.

Historically many of the sagebrush parks in the Glade Park area were manipulated with mechanical treatments and reseeded with crested wheatgrass. A result of these efforts has been vast acres of sagebrush/crested wheatgrass dominated parks. These parks have lost their value to Gunnison sage grouse and other wildlife species due to the lack of herbaceous species diversity. An identified objective in the Piñon Mesa Gunnison Sage Grouse Conservation Plan is to increase the diversity of herbaceous vegetation in these parks to improve the habitat for the sage grouse. A land health assessment identified the area as partially meeting land health standards with problems, and partially not meeting land health standards. The land health problems identified were low diversity of native perennial plants. It is anticipated that the vigor, quantity (with exception of sagebrush), and quality of all plant forms will increase as a result of the treatment. Increases in the amount of grasses and forbs will improve upland soil conditions. Results from projects on private land in the near vicinity, which did reduce competition, were successful in establishment of forbs and grasses. In 2007 a forty acre test plot was interseeded with a seed mix of grasses and forbs in an attempt to increase the herbaceous plant diversity in a sagebrush park in the 28 Hole vicinity. The interseeding effort was unsuccessful. Two factors were identified to be the reason for the failure of the interseeding, dry conditions in April, May and June of that year and competition with the sagebrush and crested wheatgrass already occupying the site. Discussions with others experienced in similar matters concluded there is a need to reduce the density of the sagebrush and crested wheatgrass to reduce competition with the establishing seedlings. A similar project was conducted in the fall of 2009 in the McInnis Canyons NCA, thus far seedlings seem to be establishing however it is too early to measure success of this project.

1.4 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: Colorado Canyons National Conservation Area and Black Ridge Canyons Wilderness

Date Approved: September, 2004

Page 2-16 of this plan identifies that historic and potential habitat for the Gunnison sage-grouse will be managed to attract and support this species.

Name of Document: CO-130-2005-045-EA Glade Park Wildland Interface (WUI) Scattered Parcels

Date Approved: August 26, 2005

Name of Document: Piñon Mesa Gunnison Sage Grouse Conservation Plan

Date Approved: May 24, 2000

Name of Document: DOI-BLM-CO-134-2009-0083-EA. 28 Hole Sage Grouse Habitat Project

Date Approved: September 30, 2009

In January 1997, the Colorado State Office of the BLM approved the Standards for Public Land Health and amended all RMPs in the State. Standards describe the conditions needed to sustain public land health and apply to all uses of public lands.

Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes.

Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods.

Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential.

Standard 4: Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Standard 5: The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado.

Because standards exist for each of 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:

1.5 PUBLIC PARTICIPATION

1.5.1 Scoping, Consultation, and Coordination

NEPA regulations (40 CFR §1500-1508) require that the BLM use a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to allow public participation to identify issues, concerns, and potential impacts that require detailed analysis. Scoping, by posting this project on the Grand Junction Field Office NEPA website, was the primary mechanism used by the BLM to initially identify issues regarding the proposed Gunnison Sage Grouse Habitat Improvement Project. No comments were received. The Colorado Division of Wildlife has been an active partner in planning and funding for this and other Gunnison Sage Grouse projects in the area.

1.6 DECISION TO BE MADE

The BLM will decide whether to approve the proposed Gunnison Sage Grouse habitat improvement project based on the analysis contained in this Environmental Assessment (EA). This EA will analyze the use of the Dixie Harrow as the mechanical treatment type. The BLM may choose to: a) implement the project as proposed, b) implement the project with modifications or an alternative to the proposed action, or c) choose to take no action at this time. The finding associated with this EA may not constitute the final approval for the proposed action. It provides the BLM authorized officer with an analysis from which to base the final approval for the proposed action.

CHAPTER 2

PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The purpose of this chapter is to provide information on the Proposed Action Alternative and the No Action Alternative. Alternatives considered but not analyzed in detail are also discussed.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 NO ACTION ALTERNATIVE

The No-Action alternative is to not complete the mechanical treatment of the sagebrush park within Potential Gunnison Sage Grouse Habitat on Glade Park. The area would remain a sagebrush/crested wheatgrass dominated park with low diversity of grass and forb plants desirable for sage grouse habitat. The status of problems in relation to land health will remain unchanged.

2.2.2 PROPOSED ACTION

The proposed action is to treat sagebrush parks in the Black Ridge area with a Dixie harrow in 2010. Approximately 300 acres will be treated within the McInnis Canyons NCA, if successful 300 additional acres may be treated in 2011 or later (see attached map). The primary objective of this treatment is to reduce the cover of sagebrush and crested wheatgrass while increasing the cover of desirable grasses and forbs to increase understory diversity and meet Gunnison Sage Grouse habitat objectives as described in the purpose and need above. The project includes reseeding the area to provide a seed source of grasses and forbs. A comprehensive monitoring plan (with permanent transects) to monitor vegetative response to the proposed treatment will guide future activities in the sagebrush plant community.

The Dixie harrow consists of a large spike tooth harrow pulled by a rubber tired tractor or dozer that is used to remove sagebrush or other small shrubs with a high degree of control. Factors such

as pattern of treatment, residual density of sagebrush, seeding, and timing all can be controlled using the Dixie harrow. This implement has the effect of thinning live sagebrush and slightly disturbing the soil in preparation for a broadcast seeding operation that will occur simultaneously. The treatment will occur in the fall or early spring to take advantage of seasonal moisture. The Dixie harrow is estimated to remove 40-60% of big sagebrush with one pass, and twice over will result in a 70-90% reduction. In order to retain a desired sagebrush cover this project will involve one pass of the Dixie harrow. If one pass is removing a higher percentage of sagebrush than desired sections of the harrow will be removed to achieve the desired results of 40% sage brush removal. A broadcast seeder will be mounted on the tractor. A native seed mix will be used and applied at about 12 lbs/acre. Treatment will involve leaving small (<.5 acre) areas untreated to provide diversity in sagebrush densities but the majority of the area will be treated in order to increase the cover of native perennial grass, forbs and shrubs.

The objective is to try and reduce sagebrush and crested wheatgrass by 40% and increase the frequency of native grasses by 20% and forbs by 10% within 5 years. A frequency transect and photo point will be established prior to the treatment to monitor success of treatment. There will be a minimum of two years rest from livestock grazing after treatment to allow for seeding establishment.

2.3 Alternatives Considered but not Analyzed in Detail:

Other types of treatments were considered but dropped due to various reasons. Disking and drilling which has been used on adjacent private lands has been successful in herbaceous plant establishment but removes a higher percentage of sagebrush than desired. Mowing removes the sagebrush but most likely would not decrease the cover of crested wheatgrass or substantially increase native herbaceous cover. Inter-seeding could be tried again but probability of success seems low based on the trial effort. Because these alternatives would not meet the purpose and need for action (to increase diversity of herbaceous vegetation), or would remove more sage brush than desired, these alternatives will not be analyzed in detail.

CHAPTER 3 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This chapter provides a description of the human and natural environmental resources that could be affected by the Proposed Action and No Action Alternative. This EA draws upon information compiled in the Grand Junction Resource Area RMP (BLM, 1987) the Grand Junction Resource Area Draft RMP and EIS (BLM, 1985), the Colorado Canyons NCA RMP (BLM, 2004) and the Colorado Canyons proposed RMP and EIS (BLM, 2004) as well as current research and resource specialist knowledge.

BLM Manual H-1790-1 (BLM, 1988) lists critical elements that must be addressed in NEPA analyses including:

- air quality;
- Areas of Critical Environmental Concern;
- cultural resources;
- environmental justice;
- farmlands;
- floodplains;
- invasive non-native species;
- migratory birds;
- Native American religious concerns;
- threatened or endangered species;
- wastes (hazardous or solid);
- water quality (surface and groundwater);
- wetlands/riparian zones;
- Wild and Scenic Rivers, and
- Designated wilderness.

All of the aforementioned critical elements are addressed in this chapter (not necessarily in the order listed above). Each critical element is addressed in a level of detail commensurate with the degree of impact to the critical element or resource. Non-critical elements including transportation, visual, soil, vegetation, and wildlife are also addressed.

CRITICAL ELEMENTS

3.2 AIR QUALITY

Air quality in the project area is typical of undeveloped regions in the western United States. No designated Class I airsheds are located within Mesa County. The closest Class I airsheds, at distances of 50+ air miles, are the Flat Tops and Maroon Bells Wilderness Areas, and the wilderness portion of Black Canyon National Park. In addition, the State of Colorado limits the incremental amount of SO₂ allowed in Dinosaur and Colorado National Monuments.

The primary sources of air pollutants in the region are fugitive dust from the desert surrounding the planning area, unpaved roads and streets, seasonal sanding for winter travel, motor vehicles, and wood-burning stove emissions. Seasonal wildfires throughout the western U. S. may also contribute to air pollutants and regional haze. The ambient pollutant levels are usually near or below measurable limits, except for high short-term increases in PM₁₀ levels (primarily wind-blown dust), ozone, and carbon monoxide. Within the Rocky Mountain region, occasional peak ozone levels are relatively high, but are of unknown origin. Elevated concentrations may be the result of long-range transport from urban areas, subsidence of stratospheric ozone or photochemical reactions with natural hydrocarbons. Occasional peak concentrations of CO and SO₂ may be found in the immediate vicinity of combustion equipment. Locations vulnerable to decreasing air quality include the immediate areas around mining and farm tilling, local population centers, and distant areas affected by long-range transportation of pollutants. Representative monitoring of air quality in the general area indicates that the existing air quality is well within acceptable standards.

The EPA General Conformity regulations require that an analysis (as well as a possible formal conformity determination) be performed for federally sponsored or funded actions in non-attainment areas and in designated maintenance areas when the total direct and indirect net air pollutant emissions (or their precursors) exceed specified levels. Since the GJFO is not within a non-attainment or a maintenance area, the Clean Air Act conformity regulations do not apply.

3.3 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

There are no Areas of Critical Environmental Concern (ACEC) located within the project area.

3.4 CULTURAL RESOURCES

A records search of the general project area, and a Class III inventory of the Area of Potential Effect (APE), as defined in the National Historic Preservation Act (NHPA), was completed by RMC Consultants Inc., a Colorado BLM permitted cultural resource contracting firm (GJFO CRIR 15510-01). Conditions of the existing cultural environment are incorporated by this reference but the following briefly summarizes cultural resources in the APE. Seven newly recorded archaeological sites were identified and evaluated for eligibility for nomination to the National Register of Historic Places (NRHP). 5ME17336 is an historic earthen dam and 5ME17337 is a prehistoric site intruded by an historic earthen dam. 5ME17335, 5ME17338 and 5ME17339 are open lithic scatters. 5ME17340 and 5ME17341 are open lithic scatters intruded with historic trash. The BLM has determined eligibility for the cultural sites through consultation with the State Historic Preservation Officer. 5ME 17337 has been determined potentially eligible for nomination to the National Register of Historic Places (NRHP) under criterion *d* for nomination to the NRHP. Additional testing would be required to determine the site's potential to yield significant scientific information. The rest of the sites have been determined not eligible for nomination to the NRHP. Three isolated finds were recorded, all were prehistoric and either discarded tools or debitage. Isolated finds require no further evaluation for NRHP eligibility.

The proposed action also considers future projects of a similar type in similar environments. Previous analysis in the open sage parks in the Glade Park area have resulted in the discovery and recording of open campsites and lithic scatters covering the entire range of human occupation in the region, from late Paleo-Indian to historic homesteads. These sites have the potential for archaeological features that could be adversely affected by the surface disturbance caused by mechanical treatment. Depending on past cultural resource inventory status, a Class III field inventory of the Area of Potential Effect, as defined in the National Historic Preservation Act (NHPA), will be conducted prior to implementation of any future surface disturbing treatments to ensure the project is in compliance with the NHPA, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources. The proposed action project inventory and evaluation is in compliance with the NHPA, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources.

3.5 ENVIRONMENTAL JUSTICE

The requirements for environmental justice review were established by Executive Order 12898 (February 11, 1994). That order declared that each Federal agency is to identify

“disproportionately high and adverse human health or environment effects of its programs, policies, and activities on minority populations and low income populations.”

According to Census 2000, the only minority population of note in the impact area is the Hispanic community of Mesa County. Persons describing themselves as Hispanic or Latino represented 10.0 percent of the population, considerably less than the Colorado state figure for the same group, 17.1 percent. Blacks, American Indians, Asians and Pacific Islanders each accounted for less than one percent of the population, below the comparable state figure in all cases. The census counted 7.0 percent of the Mesa County population as living in families with incomes below the poverty line, compared to 6.2 percent for the entire state. Both minority and low income populations are dispersed throughout the county.

3.6 FARMLANDS AND FLOODPLAINS

No farmlands occur in the project area. No floodplains have been designated in the project area.

3.7 INVASIVE, NON-NATIVE SPECIES

This area was inventoried for noxious weeds during the 2000 field season by BLM crews. There were no noxious weeds found in the project area. Invasive annuals are found throughout the region in varying amounts, depending on annual precipitation.

3.8 MIGRATORY BIRDS

The proposed action occurs in sage brush habitat, birds of conservation concern (USFWS, 2008) for whom habitat exists in the project area include Golden eagle, brewers sparrow and Gunnison sage grouse.

3.9 NATIVE AMERICAN RELIGIOUS CONCERNS

General annual project consultation has been conducted with tribes who traditionally used the GJFO area, the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Ute Indian Tribe of the Uintah & Ouray Reservation. Concerns identified included eradication of sage, impacts to medicinal plants, and general modern intervention in the natural processes. The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such the BLM recognizes that they have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. No traditional cultural properties, natural resources, or properties of a type previously identified as being of interest to local tribes, were found during the cultural resources inventory of the project area or identified by consultation. There is no other known evidence that suggests that the project area holds special significance for Native Americans.

3.10 SPECIAL STATUS SPECIES

The proposed action occurs in Gunnison sage grouse potential habitat, and is intended to improve habitat conditions for the species as described in the purpose and need. The BLM sensitive desert bighorn sheep occurs adjacent to the project area however radio telemetry data shows no use of the immediate project area. No rare plant species are known to occur within the proposed project area.

3.11 WASTES, HAZARDOUS OR SOLID

Hazardous and solid wastes are not a part of the natural environment. Hazardous waste could be introduced to the environment as a result of implementation of the proposed action.

3.12 WATER QUALITY, SURFACE AND GROUND

The proposed project area is located on the drainage divide between water quality stream segments 13a, and 13b of the Lower Colorado River Basin. Stream Segment 13a of the Lower Colorado River Basin is defined as “all tributaries to the Colorado River including wetlands, from a point immediately below the confluence with Roan Creek to the Colorado-Utah border except for the specific listings in Segments 13b through 19”. Major drainages within stream segment 13a affected by the proposed action are unnamed ephemeral tributaries to Twenty-eight Hole Wash which is tributary to the Little Dolores River. The Little Dolores River is a northwesterly flowing perennial tributary that flows into the Colorado River in Utah. Ephemeral tributaries in the lower Colorado River basin typically flow seasonally in response to storm events. Snowmelt and summer convective storms form peak flows. A water quality sample from 2009 indicates that Little Dolores River water is calcium-sulfate type with total dissolved solids at 300 mg/l. No water quality standard exceedances were noted.

Stream segment 13b of the Lower Colorado River is defined as “all tributaries to the Colorado River including wetlands, from the Government Highline Canal Diversion to a point immediately below Salt Creek and down gradient from the Government Highline Canal, the Orchard mesa Canal No. 2., Orchard mesa Drain, Stub Ditch and the northeast Colorado National Monument boundary”. Major drainages within stream segment 13b of the Lower Colorado River Basin affected by the proposed action are unnamed north easterly flowing ephemeral tributaries to Devils Canyon. Devils Canyon is an interrupted perennial tributary to the Colorado River.

Table 1 identifies stream classifications and water quality standards for Lower Colorado Basin stream segment 13a, and 13b as outlined in CDPHE, Regulation No. 37.

Table 1:		Numeric Standards					
Stream Segment	Classifications	Physical and Biological	Inorganic (mg/l)		Metals (µg/l)		
COLCLC13a	<u>Use Protected</u> Aq Life Warm 2 Recreation P Agriculture	T=TVS(WS-II) °C D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=205/100ml	CN=0.2 NO ₂ =10 NO ₃ =100	B=0.75	As(ch)=100(Trec) Cd(ch)=100(Trec) CrIII(ac)=100(Trec) Be(ch)= 100(Trec)	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Pb(ch)=100(Trec) MN(ch)=200(Trec)	Ni(ch)=200(Trewc) Se(ch)=20(Trec) Zn(ch)=2000(Trec)
COLCLC13b	<u>Use Protected</u> Aq Life Warm 2 Recreation E Agriculture	T=TVS(WS-II) °C D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml	NH ₃ (ac/ch)=TVS Cl ₂ (ac)=0.019 Cl ₂ (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO ₂ =0.05 NO ₃ =100	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Fe(ch)=1000(Trec) Pb(ch)=TVS	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS

Table data from CDPHE-WQCC 2010a

The CDPHE —Integrated Water Quality Monitoring and Assessment Report-2010 update to the 2008 305(b) Report was reviewed to determine the current status of assessment and determination of water quality within the project area. The Colorado Integrated Reporting Category (IR) value assigned to the assessment units in the —Status of Water Quality in Colorado – 2008 document

was: Segment 13a IR=2; Segment 13b IR=5. These values were not modified in the 2010 update. In Colorado, the majority of the assessed surface water bodies fall into IR Categories 1, 2, and 3. Colorado has elected to place segments where not all uses have been assessed in IR Category 2. In some cases, a complete assessment of all uses cannot be completed do to the lack of data, but the data that is available indicates that at least some of the uses that were assessed are fully supporting. IR Category 5 indicates that available data and/or information indicate that at least one classified use is not being supported or is threatened, and a TMDL is needed. Segments must be placed in Category 5 when, based on existing and readily available data and/or information, technology-based effluent limitations required by the Clean Water Act (CWA), more stringent effluent limitations, and other pollution control requirements are not sufficient to implement an applicable water quality standard and a TMDL is needed. This category constitutes the Section 303(d) list of waters impaired by a pollutant. (CDPHE-WQCC. 20010c).

The 2010 CDPHE-WQCC Regulation No. 93 Section 303d List of Impaired Waters and Monitoring and Evaluation List, was reviewed to determine if Lower Colorado River stream segments 13a, and 13b were listed. Stream segment 13a was not identified on the 303(d) or Monitoring and Evaluation list. The entire portion of Stream segment 13b was listed on the 303(d) list for selenium impairments. However, the proposed action occurs south of the Colorado River on geological deposits of the Morrison Formation Brushy Basin Member, not Mancos Shale deposits. Mancos shale soils have naturally high concentrations of selenium and salts. Studies conducted by the United States Geological Survey (USGS) and the National Irrigation Water Quality Program (NIWQP) indicated primary source areas for selenium in the Colorado River near the Colorado/Utah State line to be the eastern side of the Uncompahgre Valley, and the western one-half of the Grand Valley, where extensive irrigation is located on Mancos Shales. Of additional concern within the project area are contributions of sediment and salinity to the Colorado River system resulting from accelerated soil erosion in upland watersheds. The Colorado River Basin Salinity Control Act (Public Law 93-320) was enacted in June 1974. The Act was amended in 1984 by Public Law 98-569. Public Law 98-569 includes directing the BLM to develop a comprehensive program for minimizing salt contributions from lands under its management. Colorado's Grand Valley is recognized as the largest non-point source of salinity in the Upper Colorado River Basin.

Groundwater quality:

The closest source of usable groundwater near the project area is contained within shallow, localized, alluvial/colluvial and terrace deposits adjacent to the Little Dolores and Colorado Rivers. However, the proposed action is situated high in the watershed away from saturated alluvial/colluvial, or terrace deposits.

3.13 WETLANDS & RIPARIAN ZONES

The proposed action is located in the headwaters of Twenty Eight Hole wash and Devils Canyon. Twenty Eight Hole wash is an ephemeral dry wash with no riparian habitat. Parts of Devils Canyon were inventoried for riparian habitat in the spring of 2010. Several of the side canyons of Devils were found to have riparian habitat associated with small springs and seeps. Devils canyon would best be described as an interrupted perennial stream.

3.14 WILDERNESS

The project area is located within ¼ mile of the Black Ridge Canyons Wilderness.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed in connection with the Standards for Public Land Health:

3.15 SOILS

There are two soil types within the project boundary. Vegetative cover in this area is less than the potential due to the lack of native perennials exposing the soil to increased erosion both wind and water. Following is a short summary of each.

Soil Unit #/Name	Range Site	Slope (%)	Annual Precip. (in)	Drainage Class	Native Potential Vegetation
5-Monogram very fine sandy loam	Sandy Foothill	3 - 12	11 - 14	Well Drained	Needle and thread, western wheatgrass, Indian rice grass, Wyoming big sagebrush
7- Progresso-Mellenthin	Sandy Foothill/Foothill Juniper	3 -	11 - 14	Well Drained	Wyoming big sagebrush, western wheatgrass, needle and thread, Indian rice grass, bottlebrush squirrel tail, galleta, Utah Juniper,
20-Shalona fine sandy loam	Unspecified	3-6	11-13	Unspecified	Unspecified

3.16 VEGETATION

There is one range site associated with this project area; Sandy Foothill. Due to the sagebrush treatments and associated crested wheatgrass seeding efforts the vegetation is primarily sagebrush and crested wheatgrass. A small percentage of native plants are present. Cheatgrass is in the area but not in a dominant status. A Land Health Assessment determined the project area to overall be a combination of meeting with problems and not meeting Land Health Standards due to poor herbaceous perennial plant diversity.

Analysis of Standards for Public Land Health: The following chart summarizes the acreages for land health for the project area.

Standard Vegetation Communities.	Current Situation		Causative Factor
	Acres Achieving or moving toward Achieving Standards	Acres Not Achieving Standards	
Sandy Foothill	0	300	Previous treatments

3.17 WILDLIFE, AQUATIC

One pond occurs within the action area, this pond is likely to contain seasonal breeding populations of aquatic invertebrates however the pond does not hold water year round. No perennial water sources will be impacted by the proposed action.

3.18 WILDLIFE, TERRESTRIAL

The proposed action occurs within deer and elk winter range, and is likely to support coyotes, and a variety of small mammals, birds and lizards.

OTHER NON-CRITICAL ELEMENTS ANALYSIS:

For the following elements, those brought forward for analysis will be formatted as shown above, with write-ups below the table.

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

3.24 HYDROLOGY AND WATER RIGHTS

See Water Quality section for a description of the hydrologic characteristics.

3.26 RANGE MANAGEMENT

The proposed action is within the boundaries of the Radio Tower grazing allotment. The authorized grazing use is cattle during the spring (April 15 to June 15) and fall (December 15 to

February 11) periods. Livestock use in the allotment has been below the authorized use for the past decade.

3.29 TRANSPORTATION

Motorized and mechanized travel in the proposed project area is limited to designated routes only. The project area is accessible by two improved roads.

3.30 VISUAL

The proposed action takes place in an area that currently has no VRM classification. Unclassified areas are being managed as VRM Class III. The Class III objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES AND PROTECTIVE MEASURES

4.1 INTRODUCTION

This chapter evaluates the environmental impacts of implementing each Alternative discussed in Chapter 2 and determines the potential for significant impacts to each resource.

CRITICAL ELEMENTS

4.2 AIR QUALITY

4.2.1 No Action

No substantial impacts to air quality, long term or short term, are expected as a result of implementing the no action alternative.

4.2.2 Proposed Action

Short term production of fugitive dust (PM₁₀) would be increased during treatment operations. However, with suggested mitigation PM₁₀ levels would return to pre-disturbance levels within hours. No substantial impacts to air quality, long term or short term, are expected as a result of implementing the proposed action.

4.2.3 Protective/Mitigation measures: Treatments should not occur when wind speeds exceed 25 mph.

4.3 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

4.3.1 No Action:

The project is not within an ACEC thus no impact.

4.3.2 Proposed Action

The project is not within an ACEC thus no impact.

4.3.3 Protective/Mitigation Measures: None

4.4 CULTURAL RESOURCES

4.4.1 No Action

If the project is not implemented there would be no direct surface disturbance to the cultural resources. There appears to be soil loss from the surface in some areas of the project area and if vegetation conditions continue to degrade indirect impacts may result from surface erosion and a loss of soil will continue to expose artifacts and sheet wash will cause horizontal displacement.

4.4.2 Proposed Action

Direct effects to cultural resources would be the churning of the surface soil, horizontally and vertically displacing artifacts and potentially disrupting context or destroying features. Deep soils exist in much of the project area and in areas with no or very few surface artifacts deeper buried deposits may exist. 5ME17337 is determined as Need Data, it is potentially eligible for nomination to the NRHP under criterion "d" in consultation with the State Historic Preservation Office and additional testing would be required to make a final determination of eligibility. 5ME17336 is an historic earthen dam that is not eligible. No further work is required. Prehistoric open lithic sites 5ME17335, 5ME17338 and 5ME17339 and 5ME17340 and 5ME17341 open lithic scatters intruded with historic trash appear to be surface sites and based on their surface expression do not meet criterion "d" for nomination to the NRHP, the potential to yield significant scientific information. These sites have been determined not eligible.

4.4.3 Protective/Mitigation Measures:

The proposed action project boundary was redesigned by the BLM archaeologist to avoid and buffer the potentially eligible site, 5ME17337. A shapefile of the revised project boundary has been provided to the BLM project lead and it should be used to flag the project area prior to project implementation. One "island" was created within the project area to avoid the eligible site 5ME17337. No further work is required.

For future proposed habitat projects, historic properties identified by future surveys and recommended as eligible for the National Register of Historic Places would be excluded from the treatment area and therefore avoided. Depending on the type of site, if vegetation objectives require the removal of plants within the boundary of eligible historic properties the vegetation will be hand cut and hand removed from the site area which will have a negligible disturbance to the surface and subsurface.

Additional stipulations:

Because of deep soils it is important for the equipment operator to adhere to the stipulation of *Inadvertent Discovery*: The NHPA, as amended, requires that if newly discovered historic or archaeological materials or other cultural resources are identified during the Proposed Action implementation, work in that area must stop and the BLM Authorized Officer (AO) must be notified immediately. Within five working days the AO will inform the operator as to the mitigation measures the operator will likely have to undertake before work can resume (assuming in place preservation is not necessary) (36 CFR 800.13).

The Native American Graves Protection and Repatriation Act (NAGPRA) requires that if inadvertent discovery of Native American Remains or Objects occurs, any activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice be made to the BLM Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA Section 3(d)).

A standard Education/Discovery stipulation for cultural resource protection should be attached to the implementation equipment contract. The operator or their contractor is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts on public lands.

Strict adherence to the confidentiality of information concerning the nature and location of archeological resources will be required of the implementation equipment contractor and all of their subcontractors (Archaeological Resource Protection Act, 16 U.S.C. 470hh).

4.5 ENVIRONMENTAL JUSTICE

4.5.1 No Action

There would be no impacts to minority or low income populations under the No Action.

4.5.2 Proposed Action

The minority and low-income populations of the county are small relative to state-wide averages and such populations are dispersed throughout the county. Therefore, no minority or low-income populations would suffer disproportionately high and adverse effects as a result of the Proposed Action.

4.4.3 Protective/Mitigation Measures

None.

4.6 FLOODPLAINS

4.6.1 No Action

There would be no impacts.

4.6.2 Proposed Action

There would be no impacts.

4.6.3 Protective/Mitigation Measures:

None.

4.7 INVASIVE, NON-NATIVE SPECIES

4.7.1 No Action

There will be no impacts from a weed standpoint if there is no disturbance caused by the harrowing.

4.7.2 Proposed Action

If successful, the project area should provide a stable competitive plant community capable of thwarting weed invasions. A diverse vegetation community is more likely to resist invasion by non-native species.

4.7.3 Protective/Mitigation Measures:

The equipment used for the project should be thoroughly cleaned before transportation to the site to prevent transporting unwanted seeds to the site.

4.8 MIGRATORY BIRDS

4.8.1 No Action

The no action alternative is expected to have no effect on migratory bird habitat as no ground disturbance would occur.

4.8.2 Proposed Action

Individuals may be impacted if vegetation disturbance occurs while migratory birds are nesting in the area. The proposed action has the potential to improve habitat conditions in the project area by increasing perennial understory species diversity, improving the native plant community.

4.8.3 Protective/Mitigation Measures: To avoid direct impacts to nesting migratory birds, ground and vegetation disturbing activities should not occur during peak breeding season, between May 15 and July 15.

4.9 NATIVE AMERICAN RELIGIOUS CONCERNS

4.9.1 No Action

There would be no impacts to Native American Religious Concerns under the No Action Alternative.

4.9.2 Proposed Action

General annual project consultation has been conducted with tribes who traditionally used the GJFO area, the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Ute Indian Tribe of the Uintah & Ouray Reservation. Concerns identified included eradication of sage, impacts to medicinal plants, and general modern intervention in the natural processes. The project is designed to enhance sage habitat and no species of medicinal plants that would be adversely affected by the project were identified. The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such the BLM recognizes that they have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. No traditional cultural properties, natural resources, or properties of a type previously identified as being of interest to local tribes, were found during the cultural resources inventory of the project area or identified by consultation. There is no other known evidence that suggests that the project area holds special significance for Native Americans.

4.9.3 Protective/Mitigation Measures: Tribal representatives have consulted with the BLM Field Office on previous projects in this area and provided instructions for the protection of culturally sensitive sites, but in this vegetation environment it is highly unlikely that any will be discovered during implementation. In addition to the stipulations for the protection of Cultural Resources if new information is brought forward any site-specific Native American mitigation measures suggested during previous notification/ consultation would be considered during the implementation of the Proposed Action.

4.10 SPECIAL STATUS SPECIES

4.10.1 No Action

The no action alternative is expected to have no effect on special status species as no ground disturbance would occur.

4.10.2 Proposed Action

The proposed action has the potential to improve habitat conditions in the project area by increasing perennial understory species diversity, improving the native plant community. The percent cover of sagebrush will be less optimum for Gunnison sage grouse cover in the short term but should rebound quickly given the history of sagebrush on Glade Park and the results of other recent projects nearby. If successful the proposed action would move the project area toward meeting habitat objectives for the Gunnison sage grouse.

4.10.3 Protective/Mitigation Measures: None

Finding on the Public Land Health Standard 4 for Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and

their habitats: The proposed action is expected to increase the areas ability to meet standard 4 for special status species.

4.11 WASTES, HAZARDOUS OR SOLID

4.11.1 No Action

There would be no impacts in regards to hazardous and solid wastes if the No Action alternative was chosen.

4.11.2 Proposed Action

Hazardous materials could be introduced to the environment through the implementation of the proposed action. This would be in the form of spilled fuel, hydraulic fluid, or oil used by the machinery and the resulting in contaminated soil with the ultimate possibility of the contamination of surface and/or ground water. Care should be taken to prevent spillage of these materials and any contaminated soil should be treated or disposed of properly or remediated onsite.

4.11.3 Protective/Mitigation Measures:

Any contract or permit issued should include a requirement that fueling and maintenance activities shall not take place in or adjacent to any drainages (perennial or ephemeral.) All product containers (oil and hydraulic fluid cans, etc.) should be removed from the site and disposed of properly. Any spills, regardless of quantity, shall be reported to the BLM authorized officer. The operator will be required to clean up and fuel/oil spills, either through removal and proper disposal of any contaminated soil, or on-site remediation, at the discretion of the BLM authorized officer.

4.12 WATER QUALITY, SURFACE AND GROUND

4.12.1 No Action

No direct impacts will result from the No Action alternative. Indirectly, the existing modified plant community consisting of sage brush and crested wheat grass would persist, continually degrading upland soil conditions. Lack of herbaceous diversity and diminished upland soil conditions may leave the landscape vulnerable to erosional processes elevating deterioration of upland watershed function and condition. Degradation of the upland watershed may result in deterioration of downstream water quality over time.

No impacts to groundwater resources are anticipated under the No Action alternative.

4.12.2 Proposed Action

The proposed action would treat approximately 300 acres of sage and crested wheat grass in Glade Park by a Dixie harrow to reduce sagebrush cover and seed with native forbs and grasses. Over the short-term, increased soil erosion would occur due to the reduced plant cover and soil exposure, potentially contributing sediment to nearby drainages and downstream. The use of heavy machinery could also increase the potential for fuel, lubricants, and other anthropogenic

chemicals to enter surface drainages and groundwater, thereby degrading water quality. In the long term, the project area would show an increase in litter and a more diverse native shrub, forb, and grass community that is better able to protect soils and support desirable wildlife and livestock.

No adverse impacts to groundwater resources are anticipated with implementation of the proposed action.

4.12.3 Protective/Mitigation Measures:

Harrowing should be done on contour if terrain allows, to reduce the likelihood of sediment erosion and transport. Avoid creating lines parallel to surface flow patterns.

Finding on the Public Land Health Standard 5 for Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats: Stream segment 13b of the Lower Colorado River Basin currently does not meet water quality standards (Selenium, and sediment impairments). Implementation of the proposed action will reduce potential impacts from the no-action alternative over time. However, delisting of stream segment 13b would occur independent of the proposed action. Water quality will continue to not meet standard 5 in segment 13b.

4.13 WETLANDS & RIPARIAN ZONES

4.13.1 No Action

There would be no impacts to riparian habitat under the No Action.

4.13.2 Proposed Action

Treating 300 acres of sagebrush and improving the cover and composition within the treatments is expected to improve water infiltration of the soil surface. Although water infiltration is increased and subsurface flows are improved, the probability of increasing water quantity and duration in the intermittent channels to the point of supporting riparian habitat is low.

4.13.3 Protective/Mitigation Measures: No mitigation required.

Finding on the Public Land Health Standard 2 for Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats: The proposed action is not expected to impact the areas ability to meet standard 2.

4.14 WILDERNESS

4.14.1 No Action: Under the no action alternative, no impacts to wilderness would occur.

4.14.2 Proposed Action: The proposed action will not have a substantial impact on wilderness character. The Black Ridge Canyons Wilderness is located ¼ mile from the project site but is shielded from sight and most sound by topography and vegetative cover.

4.14.3 Protective/Mitigation Measures: None

NON-CRITICAL ELEMENTS

The following elements **must** be addressed in connection with the Standards for Public Land Health:

4.15 SOILS

4.15.1 No Action

Under the No Action alternative no soil disturbance will occur. With the current situation of less than potential vegetative cover the soils are more vulnerable to wind and water erosion.

4.15.2 Proposed Action

The proposed action will involve substantial disturbance to the soil surface. Disturbance to the soil and vegetation from the Dixie harrow will provide an improved seedbed for seedling establishment and increase litter cover on the soil surface. An increase in litter provides for more protection for the soil surface as well as moisture retention. The soil will be exposed due to an increase in erosion in the short term but in the long term should be more stable to the increase in litter and plant cover.

4.15.3 Protective/Mitigation Measures: Reseeding the area will improve vegetative cover of the soil surface.

Finding on the Public Land Health Standard 1 for soils: The proposed project will improve soil conditions by increasing ground cover and diversity of plants thus reducing both wind and water erosion.

4.16 VEGETATION

4.16.1 No Action

Under the No Action alternative no disturbance will occur to the vegetation present. With the current situation of less than potential vegetative cover the area will remain a sagebrush/crested wheatgrass dominated site with low diversity of perennial native grasses and forbs. The land health status of the area will remain Not Meeting standards due to the low vegetative diversity.

4.16.2 Proposed Action

The proposed action will result in substantial disturbance to the vegetation, primarily sagebrush and crested wheatgrass. Sagebrush cover could be reduced as much as 50% and crested wheatgrass as much as 30 to 40%. An increase in cheatgrass would also be expected in the short term occur but should decline overtime due to competition with perennial species. This result has been seen in nearby treatments. The decrease in cover of these two species should result in an increase of present and seeded native perennial species by reducing the competition for moisture and sun. The percent cover of sagebrush will be less optimum for sage grouse cover in the short term but should rebound quickly given the history of sagebrush on Glade Park and the results of other recent projects nearby.

4.16.3 Protective/Mitigation Measures: Reseeding the area should increase the diversity of the vegetative community in the area and provide competition to cheatgrass and other undesirables. Monitoring the disturbance to sagebrush and making adjustments to the equipment will ensure the desired amount of cover reduction to sagebrush is achieved.

Finding on the Public Land Health Standard 3 for plant and animal communities The Land Health Assessment completed in the area identified the area as Not Meeting based on poor diversity of perennial plants. The proposed project should improve herbaceous plant diversity thus improving the plant community.

4.17 WILDLIFE, AQUATIC

4.17.1 No Action

Under the no action alternative no ground disturbance would occur and no effects are anticipated

4.17.2 Proposed Action

The proposed action will have no effect on aquatic resources as none occur in the project area to be treated.

4.17.3 Protective/Mitigation Measures: None

Finding on the Public Land Health Standard 3 for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): Implementation of the proposed action would not affect Public Land Health Standard 3 for aquatic plant and animal communities.

4.18 WILDLIFE, TERRESTRIAL

4.18.1 No Action

Under the no action alternative no impacts would occur.

4.18.2 Proposed Action

Short term effects to wintering deer and elk are likely to include reduced winter forage in the years immediately following the treatment. However these impacts are expected to be minimal and the

proposed action has the potential to improve habitat conditions for terrestrial wildlife long term by increasing understory species composition.

4.18.3 Protective/Mitigation Measures: None

Finding on the Public Land Health Standard 3 for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): Implementation of the proposed action would not affect Public Land Health Standard 3 for terrestrial plant and animal communities.

OTHER NON-CRITICAL ELEMENTS ANALYSIS:

4.24 HYDROLOGY AND WATER RIGHTS

4.24.1 No Action

The no action alternative would not have an impact on hydrology or water rights.

4.24.2 Proposed Action

In the short-term, a reduction in vegetation cover would create flashier runoff and increase water yield in receiving streams because vegetation helps retain water and moisture on site. As vegetation cover increases over time, this impact would diminish until it returns to pre-disturbance levels, likely over 5-10 years.

4.24.3 Protective/Mitigation Measures:

See water quality protection/mitigation measures

4.26 RANGE MANAGEMENT

4.26.1 No Action

Under the No Action alternative there would be no impact to range management in the Radio Tower allotment. Forage conditions would remain the same.

4.26.2 Proposed Action

The proposed action should result in an increase in forage for livestock and wildlife. The authorized forage allocation (Animal Unit Months) for livestock would remain the same following the treatment. Additional forage would be available for wildlife. Preventing livestock grazing in the treatment area for two years will be a short term hardship for the livestock permittee but will provide additional forage in the long term.

4.26.3 Protective/Mitigation Measures: The treatment area will not be grazed for two growing seasons. Grazing of the project area may occur in the fall/winter following the treatment. Grazing during this period is expected to enhance seed bed preparation.

4.28 TRANSPORTATION

4.28.1 No Action

Under the no action alternative, no cross country travel would be necessary and temporary routes would be created.

4.28.2 Proposed Action

The proposed action is to use a large spike tooth harrow pulled by a rubber tired tractor or dozer that is used to remove sagebrush or other small shrubs with a high degree of control. The short term impacts from this application could encourage cross country travel in areas open to designated routes, which would incur resource damage and proliferation of routes. The potential for this is slight.

4.28.3 Protective/Mitigation Measures

None.

4.29 VISUAL

4.29.1 No Action

Under the no action alternative, no impacts to visual resources would occur.

4.29.2 Proposed Action

The proposed action will result in a temporary decrease in the visual resources of the area. Upon completion of the proposed action, it would be clear that mechanical manipulation of the existing vegetation would have occurred. These impacts would not be substantial and would decrease over time.

4.29.3 Protective/Mitigation Measures

None.

CHAPTER 5

5.1 CUMULATIVE IMPACTS SUMMARY:

5.1 INTRODUCTION

The proposed project is part of an ongoing effort to improve Gunnison Sage Grouse Habitat on Glade Park as part to the Piñon Mesa Gunnison Sage Grouse Conservation Plan. Several thousand acres have been treated on Glade Park on both private and public lands to improve habitat. Currently the population is located on private land at higher elevations. The goal is to improve conditions in historic sage grouse habitat to increase the potential of habitat expansion by the current population resulting in an increase in the population. This species of sage grouse is currently being reevaluated by U.S. Fish and Wildlife Service to determine whether it is warranted for listing under the Endangered Species Act, a final determination is expected in September 2010.

5.2 PAST ACTIONS IN THE PROJECT AREA

As mentioned above several thousand acres have been treated in the Glade Park/Piñon Mesa area on both private and public lands. Treatments have included brush mowing, prescribed burns, rollerchopping, disking and drilling and interseeding. This project will be the second Dixie harrow project within the Piñon Mesa Gunnison Sage Grouse planning area. Conservation Easements have also been attained by the Colorado Division of Wildlife to protect open space.

5.3 PRESENT AND REASONABLY FORESEEABLE ACTIONS

An additional vegetation treatment is proposed for this fall within the Piñon mesa population of Gunnison sage grouse, this project is a rollerchop on piñon mesa itself. A continuation of projects on both private and public lands is necessary to achieve the population goals and will continue to occur in the action area. Other activities in the area include continued and expanded recreational use in the form of off-highway vehicles, mountain biking and hiking. Livestock grazing will continue in the area as well.

5.4 CONCLUSIONS

The impacts of this project, in combination with effects created by past and concurrent projects may have minor short term impacts to soils, vegetation, and wildlife; however these impacts are expected to be insignificant. The cumulative impacts from the proposed action and surrounding projects will have a long term net benefit for sage grouse, as well as other wildlife and the health of the vegetative community.

The Piñon Mesa Gunnison Sage Grouse Working Group evaluates management actions annually to analyze the status of this population. Current direction is to follow the plan which identifies improving habitat conditions as a high priority. Other factors such as predation and loss of open space through urbanization are also limiting factors. A continued effort on the part of all partners is necessary to reduce the impacts to this population with the goal of expanding the habitat.

CHAPTER 6 REFERENCES

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CHAPTER 7 CONSULTATION AND COORDINATION

7.1 List of Preparers and Participants

Ty Smith, Dan Neubaum – Colorado Division of Wildlife

Warren Gore – Grazing Permittee

Piñon Mesa Gunnison Sage Grouse Working Group

INTERDISCIPLINARY REVIEW

NAME	TITLE	AREA OF RESPONSIBILITY
Aline LaForge	Archaeologist	Cultural Resources, Native American Religious Concerns
Michelle Bailey	Travel Management Specialist	Access & Transportation
Chris Ham	Outdoor Recreation Supervisor	Recreation, VRM, Wilderness, ACECs
Matt McGrath	Outdoor Recreation Planner	NCA, Wilderness, Recreation
Jim Dollerschell	Range Management Specialist	Range, Wild Horse & Burro Act
David "Scott" Gerwe	Geologist	Geology, Paleontology
Alan Kraus	Hazard Materials Specialist	Hazardous Materials
Heidi Plank	Wildlife Biologist Interdisciplinary Team Leader for this project	Migratory Bird Treaty Act, T&E Species, Terrestrial & Aquatic Wildlife, Air Quality, Environmental Justice, Prime & Unique Farmlands,
Anna Lincoln	Ecologist	Range, Land Health Assessment, T&E Plant Species
Bob Fowler	Range Management Specialist	Vegetation, Range, Riparian, Floodplains
Collin Ewing	Environmental Coordinator	Environmental Coordinator
Nate Dieterich	Hydrologist	Water Quality, Hydrology, Water Rights, Soils
Mark Taber	Range Management Specialist	Invasive, Non-Native Species (Weeds)

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

DOI-BLM-CO-130-2009-0083

Black Ridge 2010 Gunnison Sage Grouse Habitat Project

I have considered the potential intensity/severity of the impacts anticipated from Black Ridge 2010 Gunnison Sage Grouse Habitat Improvement project and approved mitigation measures relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

1. *Impacts that may be both beneficial and adverse.* This project may have minor short term impacts to soils, vegetation, and wildlife; however these impacts are not significant. This project will have a long term net benefit for sage grouse

2. *The degree to which the proposed action affects public health and safety.* The proposed action is not expected to impact public health and safety.

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

There are no significant impacts to riparian vegetation, parklands, prime farmlands, wetlands, or wild and scenic rivers within the project area. The project has been modified to avoid impacts to cultural and historic resources. There are no municipal water supplies in the project area.

4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

The impacts of vegetation treatments are generally well known and documented in the academic and practicing communities. Therefore the environmental effects are not likely to be controversial.

5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*

Vegetation treatments have a long history in the region and pose no unique or unknown risks.

6. *The 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.*

This decision is like one of many that have previously been made and will continue to be made by BLM responsible officials regarding vegetation treatments on public lands. The decision is within the scope of the Resource Management Plan and is not expected to establish a precedent

for future actions. The decision does not represent a decision in principle about a future consideration.

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

There are no significant cumulative effects on the environment, either when combined with the effects created by past and concurrent projects, or when combined with the effects from natural changes taking place in the environment or from reasonably foreseeable future projects.

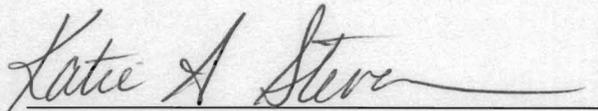
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources. There would be no adverse impacts to the above resources. The project has been modified to avoid impacts to cultural and historic resources.

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 of 1973. No impacts are expected to endangered or threatened species or their designated critical habitats.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. This decision complies with other Federal, State, or local laws and requirements imposed for the protection of the environment.

On the basis of the information contained in the EA, and all other information available to me, it is my determination that: (1) the implementation of the Proposed Action will not have significant environmental impacts beyond those already addressed in EIS for the 1987 Grand Junction Resource Management Plan (2) the Proposed Action is in conformance with the Resource Management Plan; and (3) the Proposed Action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR '1508.27), both with regard to the context and to the intensity of the impacts described in the EA.



NCA Manager
McInnis Canyons NCA

9-28-2010
Date

DECISION RECORD

It is my decision to implement the Black Ridge Sage Grouse Habitat Improvement Project as described in the Proposed Action and as modified by all of the mitigation measures included in Chapter 4 of the Environmental Assessment for this project (see Appendix B). Approximately 300 acres will be treated with a Dixie Harrow and seeded to improve the diversity of herbaceous plants to improve Gunnison Sage Grouse Habitat and overall land health.

RATIONALE: The presence of poor habitat conditions has been identified in the Piñon Mesa Gunnison Sage Grouse plan as one of the primary factors contributing to the decline of sage grouse on Piñon Mesa. This project along with several others on public and private land in coordination with the partners involved in the Piñon Mesa Working Group is an effort to address poor habitat conditions.

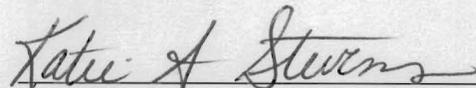
COMPLIANCE/MONITORING: Monitoring studies have been established in the project area to measure the success of the seeding effort as well as the objective of reducing the sagebrush and crested wheatgrass cover to increase the diversity in the area.

NAME OF PREPARER: Heidi Plank

NAME OF ENVIRONMENTAL COORDINATOR: Collin Ewing

DATE: 9/25/2010

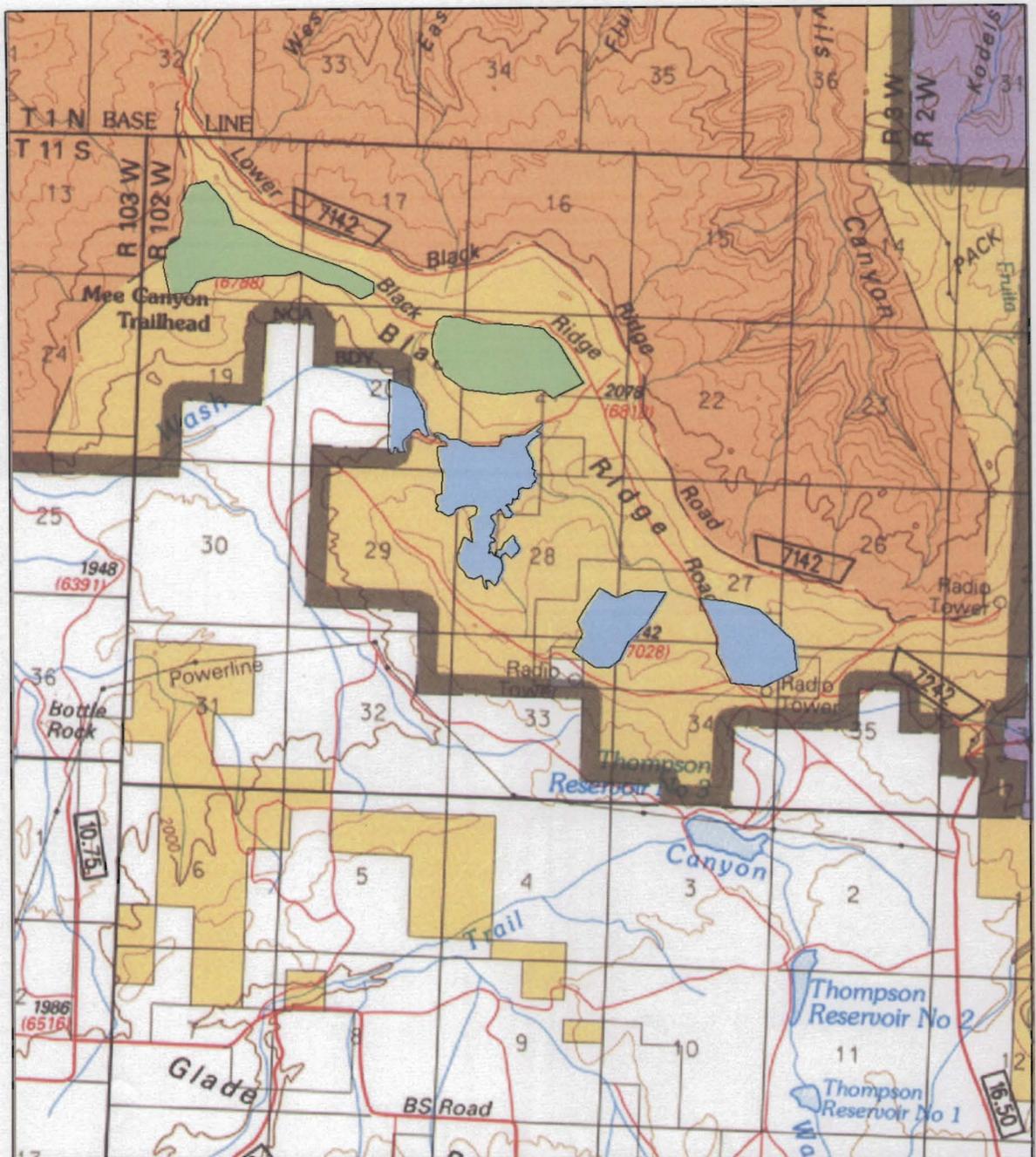
SIGNATURE OF AUTHORIZED OFFICIAL:



McInnis Canyons NCA Manager

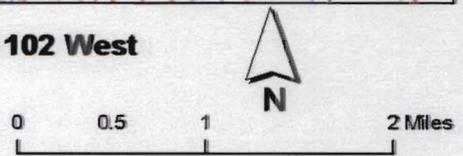
DATE SIGNED: 9/28/2010

ATTACHMENTS: Map, Appendix A (Statement of Work), Appendix B (Mitigation Measures)



Black Ridge Dixie Harrow Projects, T 11 South R 102 West

- Black Ridge 2010
- Black Ridge potential future project



Appendix A

Statement of Work for Black Ridge 2010 Gunnison Sage Grouse Habitat project

C.1.0 GENERAL:

C.1.1 Purpose: The BLM Grand Junction Field Office (GJFO) is seeking to improve Gunnison Sage Grouse Habitat in the McInnis Canyons National Conservation Area on Glade Park. The objective is to improve habitat by thinning the sagebrush cover and increasing the diversity and cover of grass and forb plant species through the seeding activity included in the project. The project area consists of approximately 300 acres at 6,500 feet elevation. This project is being coordinated with the Colorado Division of Wildlife who is providing the seed.

C.1.2 Description of Work:

Habitat Improvement Treatment: The project consists of treating one sagebrush park and one sagebrush bowl with a Dixie harrow to thin the sagebrush allowing for an increase in grasses and forbs. The contractor will pull the Dixie Harrow through sagebrush stands while broadcasting seed. Each patch will be treated once. The contractor will provide the tractor equipped with a rear mounted seeder to pull the government provided Dixie Harrow. Seed will be provided by the government. The project area is one shallow bowl and one gently north sloping mesa. Specific objectives identified under C.1.0 below will also be communicated during the on-site pre-work meeting or during subsequent project inspections by the Government's Project Inspector (PI) or Contracting Officer Representative (COR).

Notice to Proceed will be issued in September and work on this project will be completed no later than 90 calendar days thereafter. Consideration will be given to delays caused by bad weather or wet road conditions.

C.1.3. Project access: The project is in the Black Ridge area within the McInnis Canyons National Conservation area approximately 20 miles west of Grand Junction and is 9 miles northwest of the Glade Park store. For access to both sites from Grand Junction contractors will use Little Park Road (also known as CS Road) to bypass the Colorado National Monument, travel approximately 16 miles to DS Road (County) then west on DS Road approximately 1.5 miles to the Glade park store and the intersection with 16.50 road, travel north on county road 16.5 road from the Glade Park store approximately 4 miles, west on Holloway Lane 2 miles to Black Ridge then 3 miles to project site. The contractor will be required to load and haul the Dixie harrow from one polygon to the other.

C.1.4 Environmental Considerations: The majority of the targeted area is gently sloped with deep soils and scattered rock. The surrounding area is canyons and canyon rims which have a much higher concentration of rocks. Rocky areas within the project perimeter will not be flagged and it is the contractor's responsibility to see that equipment avoids traveling across these areas both to avoid damage to equipment and to avoid shallow soils.

C.1.5 Work Limits: The Black Ridge project consists of two irregular shaped units comprising about 300 acres of actual treatment area. The BLM will define on the ground with flagging the perimeter of the project area to be treated. Any areas within the project perimeter that may need to be excluded from treatment will be flagged with a striped color flagging. The project outlines will also be provided to the Contractor on a project map and electronically for GPS if desired. Boundary markings for sensitive areas will be communicated to the contractor by the COR or PI who will also provide on-site direction to the contractor as needed. Total avoidance of these areas is required and is the Contractor's responsibility.

C.1.6. Moving to and from the project area will be limited to dry conditions to reduce damage to roads.

C.1.7 A pre-bid inspection tour will be held on Tuesday, July 27 for all bidders. **Meet at the BLM Grand Junction Field Office, 2815 H Road, Grand Junction Colorado at 9am.**

C.2.0 SCHEDULING: This is a single schedule contract.

C.3.0 CONTRACTOR-FURNISHED ITEMS:

C.3.1 The contractor will provide a rubber tired tractor (minimum 130 HP 4-wheel drive or 150 HP 2-wheel drive with dual wheels) with a 3 point hitch and a fully qualified operator. This includes fuel and supplies needed for tractor operation.

C.3.2 A broadcast seeder with a 1 ½ - 2 bushel capacity hopper capable of spreading seed a distance of 12 feet. The seeder is to be mounted on the back of the tractor to spread seed between the tractor and Dixie harrow. The rate will be instructed at the pre-work meeting or during subsequent inspections by the COR/PI.

C.3.3 Transportation of equipment and operator to and from the project site.

C.3.4 Transportation of the Dixie Harrow from Whitewater, CO to the project site. This will include loading the Dixie Harrow at Whitewater and unloading it at the project site.

C.3.5 Transport seed from the BLM wareyard in Whitewater, CO to the project site. This will include loading the seed at Whitewater and unloading the seed at the project site.

C.4.0 GOVERNMENT-FURNISHED ITEMS:

C.4.1 The BLM will provide a Dixie Harrow that is 15.5 feet wide. The government will provide timely major repair to the Dixie Harrow unless damage is due to contractor neglect.

C.4.2 The BLM will provide seed and an enclosed trailer if available to protect seed from weather and rodents. Contractor is responsible for picking up seed from the BLM wareyard.

C.4.3 The BLM will GPS and flag the outer perimeter of the project area with plastic surveyors flagging. Areas within the project perimeter which are to be excluded from treatment will be flagged with a stripped contrasting color flagging. The BLM will provide maps and descriptions of the area and will go with the operator around the boundary.

C.4.4 The BLM will notify adjacent land owners of the project start dates. The PI will coordinate this communication.

C.4.5 The BLM will provide representatives from the BLM Grand Junction Field Office to act as liaison between the contractor and the BLM Contracting Officer to implement the project and to ensure that the resource objectives of the project are met.

COR: Jim Dollerschell, Office: (970)244-3016, cell: (970)640-3941.

PI: Heidi Plank, Office:(970)244-3012.

C.4.6 The BLM will provide treatment measurement: The determination of the acreage of completed work will be made by using the Global Positioning System (GPS). Area measurements required under this Contract will be measured on a horizontal plane. Dixie harrowing will be measured and paid for by the number of acres Dixie harrowed to the nearest whole acre. Work performed according to the specifications and C.9.0 will be considered acceptable for payment purposes.

C.4.6 The BLM will provide re-measurement of the acreage under this Contract upon the written request of the Contractor. The request for re-measurement must be made in writing within 10 calendar days after completion of the work. If re-measurement indicates a difference of not more than 5 percent from the original measurement, the Contractor shall pay the actual cost of the re-measurement. Payments will be based on the second measurement where the difference between measurements is more than 5 percent. Where the difference is less than 5 percent the results of the first measurement will be used.

C.4.7 The BLM will provide weekly on-site inspections by the PI and/or COR. The Contractor is encouraged to observe inspections while they are being made and have a supervisor on site to confer with the PI and/or COR. If an onsite visit has not occurred during the period, the contractor is required to report status of work each week, or when any special situations or problems are encountered. These reports may be made by telephone to the PI or COR.

C.5.0 DELIVERY, STORAGE, AND HANDLING:

C.5.1 The contractor will provide transportation for equipment, operator, and fuel to and from the site. The Contractor shall be responsible for providing the necessary material handling equipment to on-load and off-load materials and the appropriate security when equipment is left on site.

C.6.0 TRANSPORTATION OF EQUIPMENT:

C.6.1 The Contractor will be responsible for transporting all equipment to and from the site.

C.7.0 LUBRICATING AND SERVICING OF EQUIPMENT:

C.7.1 The Contractor shall be responsible for all service to all of their equipment, including but not limited to, the tractor, broadcast seeder, and support vehicles. The Contractor shall keep all equipment in proper functioning condition to ensure objectives of the project are met. Servicing must comply with Hazardous Materials stipulations below.

C.8.0 REPAIRS TO EQUIPMENT:

C.8.1 The Contractor shall be responsible for repair of all equipment, including but not limited to, tractor, broadcast seeder, and support vehicles. The Contractor shall keep the equipment in proper functioning condition to ensure objectives of the project are met. The Contractor shall be equipped to make necessary field repairs to equipment. The contractor will make minor repairs to the government provided Dixie Harrow or major repairs due to fault by the contractor.

C8.2 Use of welding equipment may be limited by fire restrictions. It is the Contractors responsibility to keep current on any restrictions.

C.9.0 SPECIFIC TASKS:

C.9.1 Surface Conditions: Treatment by the Dixie Harrow shall not be done when soil surface conditions are muddy. When such conditions are encountered, the Contractor shall stop work and notify the Contracting Officer. The Contracting Officer will determine the best course of action based on comments from the contractor and COR/PI.

C.9.2 Protection: The Contractor is required to protect section corners, bench marks, and other markers and stakes from damage or removal. In case of destruction or removal by the Contractor, they will be replaced by the Government and the actual cost for replacement will be deducted from payments due the Contractor. Any monuments that need to be preserved will be flagged and their location communicated in a pre-work on-site meeting.

C.9.3 Noxious Weeds: Vehicles and heavy equipment are one of the primary agents for the spread of noxious weed seed to public lands. In efforts to mitigate the spread of weed seed to BLM lands the following actions are required for contractors prior to transport to a BLM project area. The Contractor will be responsible for power-washing or comparable cleaning, to ensure that noxious weed seeds are removed from any and all equipment and vehicles used on the project prior to entering the project area. BLM may require a pre-implementation inspection to ensure compliance which would be arranged to occur in Grand Junction when the contractor is

planning transport to the project area. The Contractor is responsible for any additional transport or expenses associated with non-compliance.

Support vehicles (pickups, fuel/service vehicles, transports, dump trucks, etc.)

- Pressure wash radiator to flush seeds.
- Pressure wash undercarriage to remove accumulations of mud and soil that may contain seeds.

Heavy Equipment (dozers, road graders, excavators, backhoes, loaders, etc.)

- Pressure wash radiator(s) to flush seeds.
- Pressure wash tracks/tires to remove accumulations of soil.
- Pressure washes all areas of soil/debris accumulations (i.e. steps).
- Pressure wash blades and buckets where soil/mud is accumulated.
- Empty pre-cleaners (air intake) before transport.

C.9.4 Hazardous Materials:

Use of Hazardous Materials and/or petroleum products requires that all appropriate State and Federal Regulations be complied with including, but not limited to, Material Safety Data Sheets (MSDS) on hand and use of necessary Personal Protective Clothing (PPE). On-site disposal of Hazardous Materials or Waste including hydrocarbons is not authorized. The Contractor will be responsible to prevent introduction of hazardous materials into the environment during the implementation of the proposed action. Any on-site disposal or release of two gallons or more in the form of spilled fuel, hydraulic fluid, or oil used by the machinery and the resulting contaminated soil will subject the contractor to at least the cost of reclamation and the appropriate disposal of contaminated soil. Fueling and maintenance activities should not take place in or adjacent to any drainage (perennial or ephemeral.)

- a. All product containers, cans, and debris should be removed from the site and disposed of properly.
- b. Incidental leaks from fittings, gaskets, or ruptured hoses will not subject the contractor to remedial requirements.
- c. Fueling equipment and maintenance/repair locations and equipment will be inspected and approved prior to contract startup by the owner/operator and the Government's PI/COR. Inspections will include checking for evidence of oil/fuel leaks at all piping, oil/fuel lines, hydraulic lines and seals, fuel tanks and other potential sources of leaks. All evidence of leaks will be investigated and immediately repaired prior to equipment operation on the job and continual leaks will be noted on inspection reports and corrected through required maintenance.
- d. All non-manual fueling equipment will have an automatic shut-off switch installed to avoid fuel releases.
- e. Fuel tanks greater than 200 gallons may only be used within a spill containment pit. The spill containment pit shall be constructed at a site designated by the PI/COR, with an impermeable liner capable of containing a released volume of one and one-half times the tank volume.

C.9.5 Fire Prevention and Fire Safety Provisions: The government may require the contractor to curtail or cease operations should wildland fire danger approach critical levels. The

contractor will be given 24 hours notice in the form of a suspend work order issued by the Contracting Officer.

Ignition of a wildland fire that threatens the project area may require the Contractor to proceed with an emergency evacuation of the project area.

A 10 lb ABC fire extinguisher and shovel or equivalent tool will be available on the operating equipment for fire prevention and control.

C.10.0 ADDITIONAL REQUIREMENTS:

The following guidelines for Dixie Harrowing are a required mitigation measure incorporated in the decision record authorizing this project and will be communicated to the owner/operator during the on-site pre-work meeting:

- Operate equipment and vehicles only when soil conditions are dry enough to minimize impacts to soil and watershed resources.
- Equipment must be power-washed or comparable cleaning, to ensure that noxious weed seeds are removed from any and all equipment and vehicles used on the project prior to entering the project area. BLM may require a pre-work inspection to ensure compliance.
- Avoid the introduction of hazardous materials into the environment by preventing on-site fuel or oil release. Fueling and maintenance activities should not take place in or adjacent to any drainage, all product containers must be removed from the project area 52.236-10 which includes but is not limited to inspection of equipment for leaks, measures to avoid fuel releases and spill containment pits for tanks greater than 200 gallons which are reclaimed and re-contoured upon job completion, and failure to contain requires immediate reporting, documentation and cleanup in accordance with State and Federal Law and Policy.
- A 50% reduction in sagebrush is desired. In the event a higher percentage is being removed with one pass the Dixie Harrow may be modified by removing some of the pipe sections.
- Small leave islands will be involved and defined by COR or PI.
- A few large trees may remain.
- Avoid rocky areas to prevent damage to equipment. In addition, rocky areas generally have shallower soils thus less potential for herbaceous cover.
- Avoid straight lines
- Seeding rate will be between 6 and 12 pounds per acre depending on seed prices and availability.
- Work will not occur between May 15 and July 15 to protect migratory birds and their nests.

Appendix B

MITIGATION MEASURES:

- Treatments should not occur when wind speeds exceed 25 mph to avoid impacts to air quality.
- If newly discovered historic or archaeological materials or other cultural resources are identified during the Proposed Action implementation, work in that area must stop and the BLM Authorized Officer (AO) must be notified immediately.
- The operator or their contractor is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts on public lands.
- Sensitive cultural resources have been excluded from the project area based on a Class III inventory.
- Any spills, regardless of quantity, shall be reported to the BLM authorized officer. The operator will be required to clean up and fuel/oil spills, either through removal and proper disposal of any contaminated soil, or on-site remediation, at the discretion of the BLM authorized officer.
- Harrowing should be done on contour if terrain allows, reducing the likelihood of sediment erosion and transport. Avoid creating lines parallel to surface flow patterns.