

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

**Environmental Assessment
Douglas Mountain Fuels Treatment**

Little Snake Field Office
455 Emerson Street
Craig, Colorado

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CHAPTER 1 - INTRODUCTION

1.1 IDENTIFYING INFORMATION

PROJECT NAME: Douglas Mountain Fuels Treatment

1.2 PROJECT LOCATION AND LEGAL DESCRIPTION

COUNTY AND GENERAL LOCATION: The planning area considered in this EA is approximately 116,000 acres in western Moffat County and encompasses Douglas Mountain and the surrounding area within the Little Snake Field Office (LSFO). It is bounded on the south and west by Dinosaur National Monument, the Little Snake River on the east, and County Road 10 and 56 on the north.

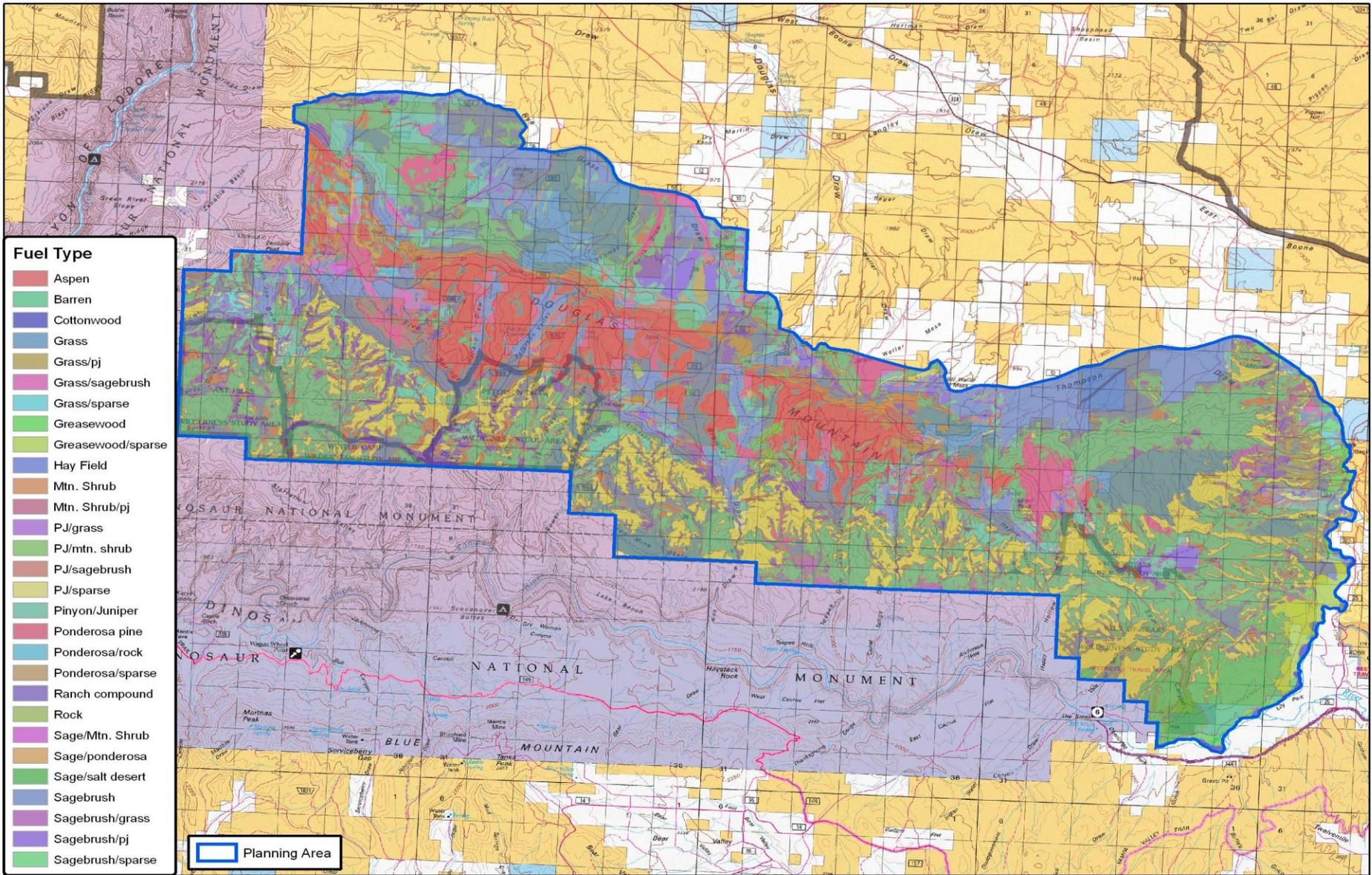
The project is located in all or a portion of the following townships:

6th p.m. T6N R98 - 100W, T7N R98 – 102W, T8N R100 - 102W, Moffat County, CO

LANDSCAPE DESCRIPTION: The planning area includes a wide variety of vegetation types and topographical settings. General vegetation types and acreages are described in Table 1. Typical annual precipitation is between 10 and 14 inches with an elevation range of 5700 to 8400 feet. Douglas Mountain, which is better described as a long west to east oriented ridge, is the main topographic feature. Map 1 depicts the planning area and general vegetation types therein.

| Table 1. | |
|-----------------------------------|-------|
| FUEL TYPE | ACRES |
| Aspen | 12 |
| Barren | 3293 |
| Cottonwood | 198 |
| Grass | 9132 |
| Grass/pj | 524 |
| Grass/sagebrush | 4122 |
| Grass/sparse | 1696 |
| Greasewood | 223 |
| Greasewood/sparse | 1170 |
| Hay field | 25 |
| Mtn. shrub | 1372 |
| Mtn. shrub/pj | 221 |
| PJ/grass | 881 |
| PJ/mtn. shrub | 164 |
| <u>PJ/sagebrush</u> | 4088 |
| PJ/sparse | 14821 |
| Pinyon/Juniper | 30172 |
| <u>Ponderosa pine</u> | 11396 |
| <u>Ponderosa/rock</u> | 510 |
| <u>Ponderosa/sparse</u> | 548 |
| Rock | 76 |
| Sagebrush/mtn. shrub | 370 |
| <u>Sagebrush/ponderosa</u> | 428 |
| Sagebrush/salt desert shrub | 725 |
| <u>Sagebrush</u> | 20419 |
| Sagebrush/grass | 165 |
| <u>Sagebrush/pj</u> | 8777 |
| Sagebrush/sparse | 658 |

Items in **bold** are considered for treatment.
Items underlined are the primary fuel types considered for planned treatments.



Map 1
Vegetation Types Within The Planning Area

1.3 BACKGROUND

The planning area encompasses Douglas Mountain and the area adjacent to the north. Fuels reduction activities that achieve multiple resource benefits have been ongoing in this area for many years and should continue into the foreseeable future. Naturally started wildfires have been managed for multiple objectives including resource benefit in the planning area as well. Fuels reduction activities have occurred on approximately 4,000 acres in the last 15 years, and wildfires have burned approximately 9,000 acres in the last 30 years. As a result of the wildfire occurrence and priority for fuels treatment, an environmental assessment (EA) which encompasses a larger area is necessary for planning future fuels treatment strategies and assessing wildfire impacts to the area.

1.4 PURPOSE AND NEED

The purpose of the Proposed Action is to take a programmatic approach to the reduction of hazardous fuel accumulations. Reducing hazardous fuel accumulations would increase public and firefighter safety, protect cultural resources, and provide an opportunity for habitat restoration. The scale of this analysis provides for a landscape approach to fuels management and the preparation of this EA provides a landscape level analysis of fuel treatment activities rather than a project by project analysis as is the current practice in the LSFO. Further, this analysis establishes environmental, administrative, and social criteria that would be utilized in the subsequent design of individual fuels treatments as well as spatial and temporal thresholds and restrictions that may apply to individual areas or planning area wide.

1.4.1 Decision to be Made

The LSFO manager will decide whether or not to approve a programmatic approach to fuels treatment activities in the Douglas Mountain planning area and if so under what terms and conditions.

1.5 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: Little Snake Record of Decision and Resource Management Plan (RMP)

Date Approved: October 2011

Results: The Proposed Action is in conformance with the LUP because it is specifically provided for in the following LUP goals, objectives, and management decisions:

Section/Page:

Wildland Fire Management - page RMP-27.

Give first priority to protection of life or property. Objectives for achieving this goal include:

- Identify and reduce hazardous fuels, with an emphasis on urban interface areas. Create an integrated approach to fire and resource management to meet land health standards. Objectives for achieving this goal include:
 - Reduce fire hazards in ecosystems and restore ecological community functions.
 - Use fire and allow it to protect, maintain, and enhance resources.
 - Use fire and allow it to function in its ecological role when appropriate for the site and situation.
 - Use mechanical or other vegetation treatments to reduce fire hazards, when appropriate.

Vegetation – page RMP-15

Collaborate with stakeholders and resource users in providing an array of habitats, suitably distributed across the landscape, that support biodiversity and viable populations of native plant and animal species. Objectives for achieving this goal include:

- Manage for a diversity of seral stages within plant communities.
- Manage for connections between varieties of plant communities on a landscape scale.
- Manage for juniper and other large woody species within their historic range of natural variability.
- Restore natural disturbance regimes, such as fire, and use vegetation treatments to accomplish biodiversity

Manage for healthy forest and woodland communities. Objectives for achieving this goal include:

- Manage forests and woodlands to improve forest resiliency to disturbances from insects, disease, and wildfires; restore habitats for special status species; and produce a sustainable supply of forest products.
- Maintain the appropriate species diversity and age-class distribution for forest and woodland communities that are resilient to disturbances.

1.5.1 RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS

The Proposed Action implements actions recommended in the following Plans, Acts, and Policies:

Northwest Colorado Fire Management Program Fire Management Plan:

National Fire Plan of 2000

Collaborative Approach to Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy Implementation Plan of May 2002.

Federal Land Assistance, Management and Assistance Act of 2009.

Healthy Forests Restoration Act of 2003

1.6 PUBLIC PARTICIPATION

1.6.1 Scoping: 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.

External Scoping Summary: The action in this EA is included in the NEPA log posted on the publicly available LSFO web site:

http://www.blm.gov/co/st/en/BLM_Information/nepa/lso.html

Internal Scoping Summary: The Proposed Action and Alternatives were introduced to the Little Snake NEPA interdisciplinary team on June 11, 2013. Staff members representing all disciplines that are analyzed in this document were present.

Issues Identified: For the purpose of BLM NEPA analysis, an “issue” is a point of disagreement, debate, or dispute with a Proposed Action based on some anticipated environmental effect.

One issue identified was the effect of the proposed action and alternatives on Wilderness and Wilderness Study Areas (WSAs). According to BLM policy, activities in wilderness areas and WSAs, including all fuels management activities, must not impair wilderness values. Other potential issues resulted in the design features of the Proposed Action.

CHAPTER 2 - PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

This chapter describes and compares the Proposed Action and No Action Alternative, and alternatives considered but dismissed.

The Proposed Action seeks to analyze fuels treatment activities on a logical landscape level versus a project by project analysis as is the current approach under the no action alternative. If the no action alternative is selected, fuel treatment activities would continue to be analyzed with a site-specific EA. No other alternatives were brought forth for consideration.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 Proposed Action

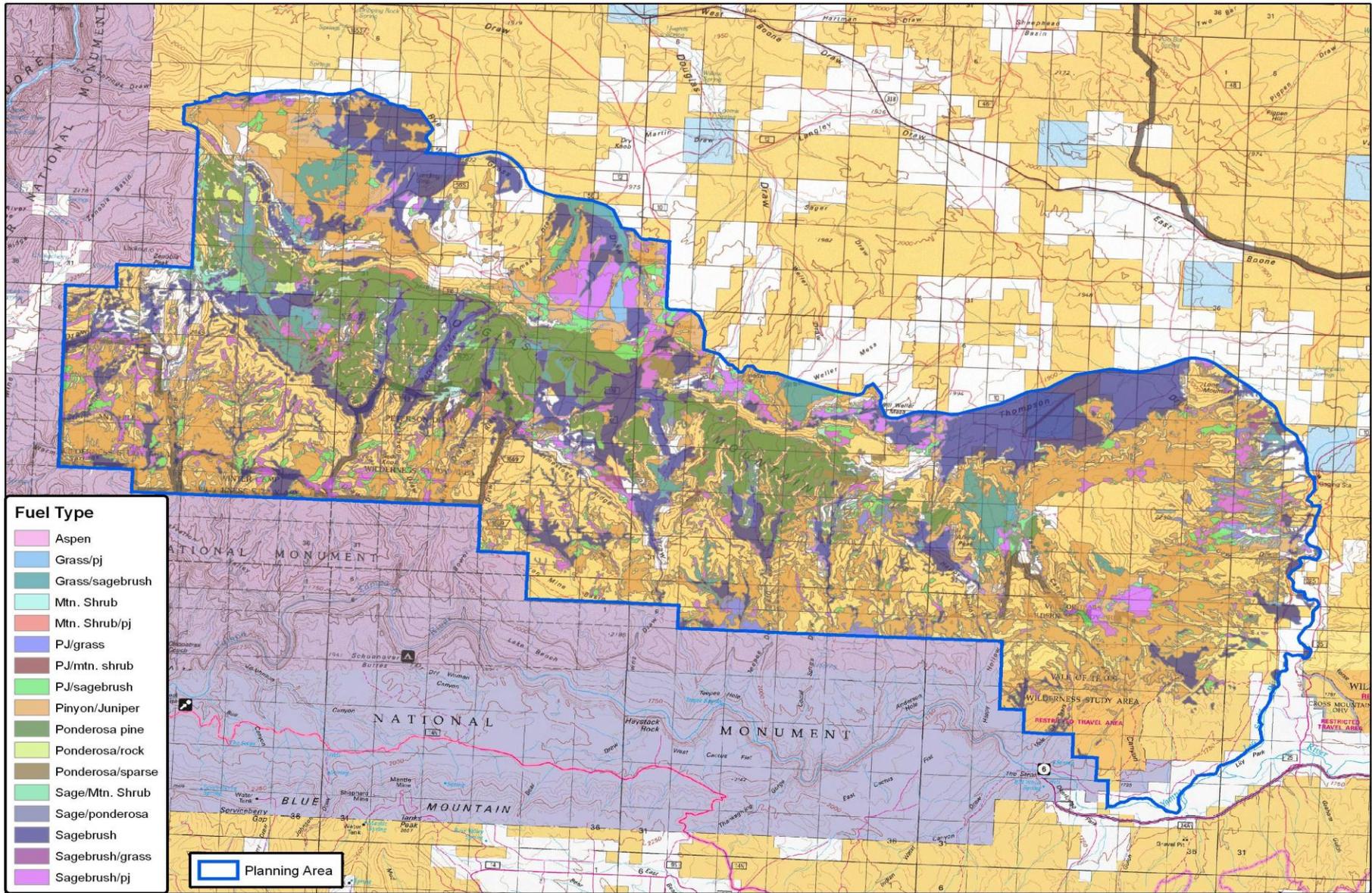
Background Information for the Proposed Action

The planning area encompasses 116,000 acres; however not all acres are being considered for fuels reduction treatments. The vegetation types considered for fuels treatments are highlighted in bold in Table 1. Certain fuel types (vegetation types) are not being considered for treatment due to lack of fuel continuity, which means fire would not likely spread through them. Others are not being considered due to the uniqueness of the vegetation type such as cottonwood stands or undesirable effects fire or mechanical treatment would have on them, such as greasewood.

Due to the threat of weed infestation and the infeasibility of prescribed burning, areas classified as pj/sparse are not being considered for treatment unless seeding can be done after treatment. Areas mapped as pinyon/juniper are not typically targeted for treatment due to the expense of treatment and seeding unless there is an overriding public safety concern such as a direct wildfire threat to residences. Unplanned wildfire events in the pinyon/juniper fuel type may be considered for resource benefit since post fire funding for fire rehabilitation can many times be obtained and seeding accomplished through this revenue source.

Due to potential soil erosion from fuels treatments on slopes greater than 30%, only the targeted fuel types with slopes of 30% or less are being considered for treatment. When considering all the above factors, the treatable acreage is reduced to 72,000 acres (see Map 2). Within the 72,000 acres considered for treatment, the primary focus would be on 4 general vegetation types including: pj/sagebrush, sagebrush/pj, sagebrush, and all ponderosa pine classifications. This corresponds to vegetation communities that typically have a fire return interval of 100 years or less, are the most productive sites, and most resilient to fire. It is estimated that 90 percent of planned treatment acres would be in these 4 fuel types which amounts to 40,500 acres within the planning area. It is estimated that between 500 and 5,000 acres would be treated annually with no more than 30,000 acres treated in a ten year period. Large fluctuations in annual acres treated would mostly be due to the amount of acres burned in wildfires managed for resource benefit.

Wilderness Study Areas (WSAs) will not be considered for planned fuels treatments in this analysis; however lightning caused wildfires within the four WSAs would be considered for resource benefit.



Map 2
Target Fuels on Slopes 30% or Less

Methodology and Design Features of the Proposed Action

It is proposed to reduce hazardous fuels through vegetation manipulation within the planning area to meet wildland fire, vegetation, and other resource management goals. Prescribed and natural fires, as well as mechanized treatments, are the main methods proposed to accomplish these goals. To a lesser degree, seeding and chemical treatments may also be utilized. Each are described below:

Prescribed Fire:

Prescribed fire would be implemented in areas where the native vegetation response to fire has proven to be positive. This includes sagebrush, mountain shrub, and open pinyon/juniper stands with sagebrush intermixed. The primary factor to a positive response is an adequate understory of perennial herbaceous vegetation. Good results have been obtained in ponderosa pine stands as well, as long as fire intensity is kept low enough to prevent excessive mortality. Straight pinyon/juniper stands or other areas lacking sufficient perennial herbaceous vegetation would not be targeted unless seeding after burning could be done. Areas targeted for prescribed burning typically utilize roads and natural barriers to the extent possible in order to reduce preparation costs, escape potential, and ground disturbance caused by fire line construction. Prescribed burn season typically occurs between March 1 and May 15 and September 1 and October 30.

Ignition may be done with ground based equipment including drip torches, fusees, or truck mounted terra-torch; or aerial firing equipment including the plastic sphere dispenser or heli-torch.

Pile burning following mechanized tree and brush cutting, thinning, and limbing is an alternative burning method considered under the umbrella of prescribed burning. Woody material such as limbs, stems, cut boles and other slash greater than two feet in length is placed in piles up to 12' in diameter and 8' tall. Piles would be burned after the material has had time to cure in order to promote complete combustion and reduce smoldering. Burning typically occurs during the late fall, winter, or early spring when there is snow on the ground to prevent fire spread away from the piles. Areas where pile burning may occur are more fully described in the mechanical treatment methods section. Pile burning is subject to the same procedural requirements as that for broadcast burning described below.

Prescribed burning must be carried out in accordance with the Interagency Prescribed Fire Planning and Implementation Procedures Guide. This guide requires that a prescribed burn plan be completed that describes exactly how and under what conditions prescribed burning would occur in order to meet stated resource and fire management goals and objectives. The prescribed fire would also be conducted in accordance with the State of Colorado Smoke Management Plan and MOU, and would be regulated under Colorado Department of Public Health and Environment, Air Pollution Control Division. The Air Pollution Control Division would issue an open burning permit, which specifies smoke dispersal conditions and other stipulations under which burning may occur.

Natural Fire:

Fires ignited by lightning may be managed in whole or in part for resource benefit. As the location and timing of these fires cannot be predicted; the same criteria, to the extent possible, will be applied to natural fire as prescribed fire and mechanized treatments in determining the suitability in managing a fire for resource benefit. Any fires considered for resource benefit or those that escape initial attack utilize the Wildfire Decision Support System (WFDSS) in which the Field Office Manager with input from resource advisors and fire management staff decide whether to manage all or part of a fire for resource benefit. Resource concerns, goals, and constraints are considered when selecting a fire management strategy and tactics. This decision is periodically reviewed and can be modified at any time.

Mechanical Treatments:

Mechanical treatments, other than brush mowing, target encroaching trees that threaten to either dominate areas that are desirable to maintain as brush/grass communities or provide a dangerous fuel buildup that could compromise ponderosa pine stands in the event of a wildfire. Mechanical treatments may be conducted near houses, structures, or high value resources where prescribed fire is too risky. It may also be used in preparation for prescribed burning to reduce the risk of escape and improve fire fighter safety. Though there is little demand, biomass such as firewood, posts and poles, saw-timber, or mulch produced from mechanical treatments may be offered for sale; or included as part of a fuels reduction contract to offset the cost of implementation. Mechanical treatment methods are described below.

Hand Thinning:

Chainsaws would be used to limb or remove undesirable trees and branches and the slash would be placed in piles and burned later in the fall or winter. Piles would not be placed on known cultural sites.

In ponderosa pine areas, pinyon or juniper trees less than 8' tall, and those trees that have ladder fuel potential, and brush would be cut with chainsaws. No large ponderosa trees would be cut, and only selected smaller trees would be cut. The objective of hand thinning is to produce a healthier stand of trees and reduce the chance of wildfire burning through the tree crowns. Tree limbs within 6' of the ground would be cut from larger trees to eliminate ladder fuels which provide a path for fire to burn up into the crown of a tree. In areas where diseased trees occur, all diseased trees, regardless of size, would be cut down, limbed, bucked and piled for later burning.

Tree Mastication:

This is typically done with a large rubber tired tractor (similar to a skidder) with a 6' - 8' hydraulically powered mowing or mulching head attached to the front (Figures 1 and 2). Tracked units with a similar masticating head may also be used on smaller sized projects or trees as they are typically smaller machines (Figure 3). These machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. Whole trees are reduced to small branches and pieces of wood from pencil size up to bowling ball size (Figure 4). The mulch is scattered across the surface but will be deeper in the immediate vicinity of the tree.



Figure 1. Rubber tired carrier with horizontal rotary drum (Bull Hog shredder)



Figure 2. Rubber tired carrier with mower style shredder (Hydro-Ax).



Figure 3. Tracked carrier with horizontal rotary drum (Bull Hog Shredder).



Figure 4. Typical results of tree mastication.

Brush Mowing:

This technique involves a heavy duty mower pulled behind a rubber tired tractor (Figure 5). It is typically used in flat to gently rolling sagebrush areas. Brush would be mowed to a height of 3 to 4 inches (Figure 6.). Herbaceous vegetation is also mowed during this process but is not killed and any damage very short term. Treatments are typically done in a mosaic fashion leaving 30 to 60% of the target area untreated.



Figure 5. Brush mower.



Figure 6. Typical brush mowing results.

Seeding:

While seeding alone is not considered a fuels reduction treatment, it may be done following other treatments to reduce the chance of noxious weed or undesirable species infestation, or in ecosystem restoration efforts. Seeding would typically be done in burned areas that had little native herbaceous plant cover. Native species that are endemic to the area would be utilized if possible. Non-native species would only be used if native species are unavailable or would not be able to achieve the desired ecosystem maintenance or restoration goal. Seeding rates vary by species and application method but is typically about 8 – 12 lbs. pure live seed (pls) per acre. All seed must be certified noxious weed free for the 11 western states in order to be used on BLM land.

Chemical Treatments:

Herbicides may be used to treat to treat small weed infestations following other fuels reduction treatments or as a stand-alone treatment to reduce cheatgrass (*bromus tectorum*). Cheatgrass is a fine/flashy vegetation type that burns quickly and is available to burn much earlier in the fire season than perennial grasses. By removing or reducing cheatgrass occurrence, perennial grasses and forbs are favored that are not as flammable. Any herbicide application would be done in compliance with Little Snake Field Office Integrated Pest Management Plan, # DOI-BLM-CO-N010-2009-0025-EA.

Design Features of the Proposed Action – if selected, the following design features will be incorporated into the Proposed Action Alternative. Individual fuels reduction projects proposed under the guidance of the Proposed Action will first undergo a Determination of NEPA Adequacy. The Field Office Manager with input from resource specialist will decide if all resource concerns are adequately addressed in this environmental analysis and apply additional mitigation measures if necessary or determine that an additional environmental analysis is required.

Resource-specific Design Features:

Soils

1. Planned fuels treatments will be limited to slopes less than 30%. An exception would be rocky areas where the threat of soil erosion is low.
2. Avoid heavy equipment use on fragile soils (see p. 25 for definition of fragile soils), wet or boggy soils, and slopes greater than 30%, unless otherwise analyzed and allowed under appropriate NEPA evaluation with implementation of additional erosion control and other soil protection mitigation measures.
3. There may be situations where high intensity fire occurs on sensitive and fragile soil types during wildland fire, wildland fire use or prescribed fire. If significant areas of soil show evidence of high-severity fire, then evaluate area for soil erosion potential and downstream values at risk and implement appropriate or necessary soil stabilization actions such as mulching or seeding to avoid excessive wind and water erosion.
4. Complete necessary rehabilitation on firelines or other areas of direct soil disturbance, including but not limited to water-barring firelines, covering and mulching firelines with slash, tilling and/or sub-soiling compacted areas, scarification of vehicle tracks, OHV closures, seeding and/or mulching for erosion protection.
5. When using mechanical fuels reduction treatments, limit tractor and heavy equipment use to periods of low soil moisture or when the ground is frozen/under snow to reduce the risk of soil compaction. If this is not practical, evaluate sites post treatment and if necessary, implement appropriate remediation as part of the operation.

Surface Water Quality and Riparian Areas

1. Do not use retardant within 300 feet of water bodies.
2. Plan and implement projects consistent with the maintenance of surface water quality and designated beneficial uses. Planned activities should take into account the potential

impacts on water quality, including increased water yields and sedimentation that can threaten fisheries and aquatic habitat; improvements at channel crossings; channel stability; and downstream values. Of special concern are small headwaters of moderate to steep watersheds, erosive or fragile soils, and multiple channel crossings.

3. Avoid heavy equipment in riparian areas. During fire suppression or wildland fire use, consult a resource advisor before using heavy equipment in riparian areas.
4. Limit ignition within native perennial and ephemeral riparian areas. Allow low-intensity fire to burn into treeless riparian areas.
5. Exclude fire in all native riparian tree communities (i.e. cottonwood, willow, and box elder)
6. When using chemical fuel reduction treatments follow all label directions, additional mitigations identified in project NEPA evaluation and the approved Pesticide Use Proposal. At a minimum, provide a 100-foot-wide riparian buffer strip for aerial application, 25 feet for vehicle application and 10 feet for hand application. **Any deviations must be in accordance with the label.** Herbicides would be applied to individual plants within 10 feet of water where application is deemed critical (BLM ROD *Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States* EIS 2007).

Wildlife

1. If an active raptor nest has been located in the Planning Area, there will be a 0.25 mile buffer of no surface disturbance stipulation put into effect allowing no activities from February 1 through August 15. Exceptions may be granted as outlined in the Little Snake Resource Management Plan.
2. Fuels treatment activities will not be allowed in mapped elk calving areas between April 16 and June 30 or between May 15 and July 15 for migratory bird protection. Exceptions may be granted as outlined in the Little Snake Resource Management Plan Appendix B.
3. For fuels treatments or wildfires being managed for resource benefit in greater sage grouse habitat, Fuels and Fire Best Management Practices will be applied. Applicable best management practices are outlined in Appendix A.

Fire Operations Best Management Practices for Sage-Grouse Conservation

1. Assign a resource advisor with sage-grouse expertise, or who has access to sage-grouse expertise, to all extended attack fires in or near sage-grouse habitat areas.
2. As appropriate, utilize existing fuel breaks, such as roads or discrete changes in fuel type, as control lines in order to minimize fire spread.

3. To the extent possible, locate wildfire suppression facilities (i.e., base camps, spike camps, drop points, staging areas, heli-bases, etc.) in areas where physical disturbance to sage-grouse habitat can be minimized. These include disturbed areas, grasslands, near roads/trails or in other areas where there is existing disturbance or minimal sagebrush cover.
4. Power-wash all firefighting vehicles, to the extent possible, including engines, water tenders, personnel vehicles, and all-terrain vehicles (ATV) prior to deploying in or near sage-grouse habitat areas to minimize noxious weed spread.
5. Minimize unnecessary cross-country vehicle travel during fire operations in sage-grouse habitat.
6. Minimize burnout operations in key sage-grouse habitat areas by constructing direct fireline whenever safe and practical to do so.
7. Utilize retardant, mechanized equipment, and other available resources to minimize burned acreage during initial attack.
8. As safety allows, conduct mop-up where the black adjoins unburned islands, dog legs, or other habitat features to minimize sagebrush loss.
9. Adequately document fire operation activities in sage-grouse habitat for potential follow-up coordination activities.

Fuels Management Best Management Practices for Sage-Grouse Conservation

1. Where applicable, design fuels treatment objectives to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which most benefit sage grouse habitat.
2. Use burning prescriptions which minimize undesirable effects on vegetation or soils (e.g., minimize mortality of desirable perennial plant species and reduce risk of annual grass invasion).
3. Ensure proposed sagebrush treatments are planned with full interdisciplinary input pursuant to NEPA and coordination with state fish and wildlife agencies, and that treatment acreage is conservative in the context of surrounding sage-grouse seasonal habitats and landscape.
4. Where appropriate, ensure that treatments are configured in a manner that promotes use by sage grouse.
5. Where applicable, incorporate roads and natural fuel breaks into fuel break design.

6. Power-wash all vehicles and equipment involved in fuels management activities, prior to entering the area, to minimize the introduction of undesirable and/or invasive plant species.
7. Design vegetation treatments in areas of high fire frequency which facilitate firefighter safety, reduce the potential acres burned, and reduce the fire risk to sage-grouse habitat. Additionally, develop maps for sage-grouse habitat which spatially display current fuels treatment opportunities for suppression resources.
8. Emphasize the use of native plant species, recognizing that non-native species may be necessary depending on the availability of native seed and prevailing site conditions.
9. Remove standing and encroaching trees within at least 100 meters of occupied sage-grouse leks and other habitats (e.g., nesting, wintering and brood rearing) to reduce the availability of perch sites for avian predators, as resources permit.
10. Protect wildland areas from wildfire originating on private lands, infrastructure corridors, and recreational areas.

Weeds/Range

1. Burn areas will be rested from livestock grazing for a minimum of two growing seasons. Some exceptions may apply, such as ponderosa pine understory burns that are primarily needle cast, pile burn areas, or other small burns where grazing exclusion is infeasible.
2. Mechanical treatments that have little ground disturbance may not require grazing rest. These treatments will be evaluated on a case by case basis.
3. All machinery used within the project boundary will be cleaned prior to working within the project, to help reduce the spread of noxious weeds.
7. Coordination with permittees will be made prior to any treatments.
8. Unless other agreements have been documented any treatment requiring rest or exclusion from livestock grazing should require at least one year notice for the livestock operator to make alternative arrangements or adjustments for when their allotment(s) is closed to grazing.
9. Treatments will be monitored for noxious weed infestation and control measures taken if warranted.
10. Damages to fences will be repaired by the BLM unless other arrangements have been made with the grazing permittee or land owner.

Recreation/Wilderness/Lands with Wilderness Characteristics

1. Timing limitations may be implemented if excessive conflicts with hunting is expected or cannot be mitigated.
2. Wilderness Study Areas (WSAs) will not be considered for planned fuels treatments in this analysis; however lightning caused wildfires within the four WSAs will be considered for resource benefit.
3. No Mechanical treatments will be planned for areas designated as lands with wilderness characteristics until overall management decisions have been made.

Cultural/Heritage Resources

1. Once an area has been identified for treatment, an appropriate level of cultural resources assessment and/or inventory will be determined and completed prior to project implementation. Consultations with the State Historic Preservation Officer (SHPO), Native American tribes, or other affected/interested parties also may be required.
2. Site avoidance is the preferred measure to protect sensitive cultural resources. When site avoidance is not practical/feasible to achieve treatment goals, alternative protective strategies may include (but are not limited to): creating fire/fuel breaks around at-risk sites and structures; use of foam, wetting agents, and/or fire retardants (NEVER use foam or retardant on rock art); wrapping structures/structural elements with reflective material or covering rock art with a fire resistant fabric; remove logs/heavy fuels from sites/features (e.g., clear snags off bedrock mortars); flush-cut and cover stumps with dirt, foam, or retardant where burnout could affect subsurface cultural resources; identify and reduce hazard fuels next to historic structures; and generally minimizing fuels and smoke near sensitive features/sites (c.f., Horne and Winthrop 2005).
3. For any action or treatment, the Standard Discovery Stipulations apply:
 - a. Any cultural and/or paleontological (fossil) resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and the authorized officer will make any decision as to proper mitigation measures after consulting with the holder.
 - b. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately

contact the authorized officer (AO) at (970) 826-5000. Within five working days, the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again; and
 - o Pursuant to 43 CFR 10.4(g) (Federal Register Notice, Monday, December 4, 1995, Vol. 60, No. 232) the holder of this authorization must notify the AO, by telephone at (970) 826-5000, and with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.
- c. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Paleontological Resources

1. Areas that contain geologic formations that are PFYC 3, 4, and 5, for which new surface disturbance is proposed on or adjacent to bedrock (native sedimentary stone), including disturbance that may penetrate protective soil cover and disturb bedrock, may be subject to an inventory that shall be performed by a BLM permitted paleontologist and approved by the appropriate LSFO specialist. Surface disturbing activities in many areas including PFYC 4 and 5 may also require monitoring by a permitted paleontologist. The risks of damage or degradation by human-caused impacts could be lowered if the area of the Proposed Action is covered by extensive soil and vegetative cover
2. Any paleontological resource discovered during fuel reduction treatment shall be immediately reported to the BLM Authorized Officer. Construction operations shall be suspended in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer and the discovery shall be protected from damage or looting. Activities may not be required to be suspended if activities can be adjusted to avoid further impact to a discovered locality or be continued elsewhere. The Authorized Officer would evaluate or would have evaluated, such discoveries as soon as possible, but not later than 10 working days after being notified. Appropriate measures to mitigate adverse effects to significant paleontological resources will be determined by the Authorized Officer after consulting with the operator. Within 10 days, the operator

would be allowed to continue construction through the site, or would be given the choice of either (1) following the Authorized Officer's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (2) following the Authorized Officer's instructions for mitigating impacts to the fossil resource prior to continuing construction through the Planning Area.. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant paleontological or scientific values.

Realty Authorizations

1. Power lines within the analysis area will be avoided or protection measures implemented prior to planned treatments or during managed wildfires.
2. Projects will only involve private land where the landowner is a willing participant and an agreement has been signed.

Recreation

1. Public and Permittee notifications will be made prior to project action.

2.2.2 No Action Alternative

Fuels reduction treatments and naturally ignited fires that may meet hazardous fuels reduction and resource management goals would not be analyzed as a whole for the defined planning area. The no action alternative does not mean fuels treatment activities would not occur; merely that any new project would be considered and analyzed individually.

2.3 Alternatives Considered But Eliminated from Detailed Analysis:

An alternative that allowed no fuels reduction activities or management of fires for resource benefit was considered but eliminated as a result of being inconsistent with the Little Snake Resource Management Plan.

CHAPTER 3 – AFFECTED ENVIRONMENT AND EFFECTS

3.1 INTRODUCTION

Affected Resources:

The CEQ Regulations state that NEPA documents “must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail” (40 CFR 1500.1(b)). While many issues may arise during scoping, not all of the issues raised warrant analysis in an environmental assessment (EA). Issues will be analyzed if: 1) an analysis of the issue is necessary to make a reasoned choice between alternatives, or 2) if the issue is associated with a significant direct, indirect, or cumulative impact, or where analysis is necessary to determine the significance of the impacts. Table 1 lists the resources considered and the determination as to whether they require additional analysis.

Table 2. Resources and Determination of Need for Further Analysis

| Determination¹ | Resource | Rationale for Determination |
|---|-------------------------------|---|
| Physical Resources | | |
| PI | Air Quality and Climate | See Chapter 3 for detailed analysis. |
| NI | Floodplains | There are FEMA-identified 100-year floodplains along the Little Snake River, located on the east boundary of the Planning Area, that are subject to rare flooding. None of the alternatives analyzed include treatment within identified floodplains. No threat to human safety, life, welfare and property would result from implementing any of the alternatives. |
| NI | Hydrology, Ground | Subsurface hydrology would not be impacted by surface vegetation treatments. |
| PI | Hydrology, Surface | See Water Quality, Surface in Chapter 3 for detailed analysis. |
| NI | Minerals, Fluid | Fluid minerals would not be impacted by the proposed or no action alternatives. |
| NI | Minerals, Solid | Solid minerals would not be impacted by the Proposed Action. |
| PI | Soils | See Chapter 3 for detailed analysis. |
| NI | Water Quality, Ground | Subsurface water quality would not be impacted by surface vegetation treatments. |
| PI | Water Quality, Surface | See Chapter 3 for detailed analysis. |
| Biological Resources | | |
| PI | Invasive, Non-native Species | See Chapter 3 for detailed analysis. |
| PI | Migratory Birds | See Chapter 3 for detailed analysis. |
| PI | Special Status Animal Species | See Chapter 3 for detailed analysis. |
| PI | Special Status Plant Species | See Section 3.3.4 for detailed analysis. |
| PI | Upland Vegetation | See Chapter 3 for detailed analysis. |
| PI | Wetlands and Riparian Zones | See Chapter 3 for detailed analysis. |
| NI | Wildlife, Aquatic | Very little habitat for aquatic wildlife exists in the Planning Area. In addition, riparian habitats are not identified for treatments and therefore no impacts would be expected. |
| PI | Wildlife, Terrestrial | See Chapter 3 for detailed analysis. |
| NP | Wild Horses | The proposed Planning Area is not within a wild horse herd management area. |
| Heritage Resources and the Human Environment | | |
| PI | Cultural Resources | See Chapter 3 for detailed analysis |

| Determination¹ | Resource | Rationale for Determination |
|----------------------------------|---|--|
| NP | Environmental Justice | According to the most recent census Bureau statistics (2000), there are no minority or low income populations within the LSFO. |
| PI | Hazardous or Solid Wastes | See Chapter 3 for detailed analysis |
| PI | Lands with Wilderness Characteristics | See Chapter 3 for detailed analysis |
| PI | Native American Religious Concerns | See Chapter 3 for detailed analysis |
| PI | Paleontological Resources | . See Chapter 3 for detailed analysis |
| NI | Social and Economic Conditions | There would not be any change to local social or economic conditions. |
| PI | Visual Resources | See Chapter 3 for detailed analysis |
| Resource Uses | | |
| NI | Access and Transportation | Access and Transportation would not be affected by the Proposed Action or alternatives. |
| NI | Fire Management | The Proposed Action is consistent with the existing LSFO Fire Management Plan. |
| PI | Forest Management | See Chapter 3 for detailed analysis |
| PI | Livestock Operations | . See Chapter 3 for detailed analysis |
| NI | Prime and Unique Farmlands | There are soil types designated as “ prime farmland if irrigated” and “farmland of statewide importance” within the Planning Area. Generally, farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. None of these soils are or would become irrigated or otherwise manipulated so as to create conditions favorable to create prime farmland on public lands within the Planning Area. |
| NI | Realty Authorizations, Land Tenure | Realty Authorizations are present but there would be no impacts due to the Proposed Action or alternatives and best management practices. |
| PI | Recreation | See Chapter 3 for detailed analysis |
| Special Designations | | |
| NP | Areas of Critical Environmental Concern | There are no ACECs near the proposed Planning Area; therefore the Proposed Action would have no impact. |
| NP | Wild and Scenic Rivers | There are no WSRs near the proposed Planning Area; therefore the Proposed Action would have no impact. |
| NI | Wilderness Study Areas | WSAs would not be considered for planned fuels treatments; however lightning caused wildfires within the four WSAs would be considered for resource benefit. |

¹ NP = Not present in the area impacted by the Proposed Action or Alternatives. NI = Present, but not affected to a degree that detailed analysis is required. PI = Present with potential for impact analyzed in detail in the EA.

3.2 PHYSICAL RESOURCES

3.2.1 Air Quality and Climate

Affected Environment: The Douglas Mountain Planning Area is one of the higher elevation areas with the field office. Activities on Douglas Mountain consist primarily of ranching and hunting. The area is sparsely populated - the nearest “town” is Greystone (estimated population of around 300 in the general vicinity), which lies just inside the northern project boundary on Moffat CR 10. Maybell (estimated population of around 70) is approximately 17 miles to the east at the intersection of Highways 40 and 318. In view of the limited emission sources, the area is assumed to be meeting the national and state ambient air quality standards. Pollutants are primarily associated with wood burning at private residences, dust from unpaved roads and off-road travel, and vehicle emissions.

There are no federal Class I (airshed) areas in Colorado, Utah or Wyoming within 100 km of the Planning Area boundary. There are no non-attainment areas nearby that would be affected by either alternative. The Planning Area is immediately adjacent (to the east and north) to Dinosaur National Monument, a Class II area. Prevailing winds in the area are from the west-southwest.

Environmental Consequences, Proposed and No Action Alternatives: There are no air quality monitoring stations that measure relevant air quality parameters near the Planning Area, so there is not sufficient monitoring data to make a formal finding on the air quality impacts associated with the Proposed Action. Implementing either alternative would result in some increased emissions. Prescribed burns produce reactive organic compounds, nitrogen oxides, carbon monoxide, inhalable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and greenhouse gas pollutants. Vehicle and machine engine combustion also produces the same categories of emissions as prescribed fire. In addition, vehicle use on unpaved roads and cross-country travel generate fugitive dust that contains PM₁₀ and PM_{2.5}, which can also be increased from burned areas until revegetation successfully reduces wind erosion to pre-burn levels. The emissions from vehicles and equipment would be of small quantity and have a short duration.

Emissions from a fire can cause irritation to the eyes, nose, and mouth and can reduce visibility. Due to the distances involved, private residences in Greystone and potentially Sunbeam/Maybell would be the most likely to be affected. The permit to burn requires prescribed burns to occur during the most favorable atmospheric conditions to increase smoke dispersion and lessen impacts to air quality and nearby residents. The actual occurrence, duration, frequency, and amount are dependent on the intensity of the burn, soil moisture and vegetative cover, and subsequent weather conditions. It is not expected to pose a safety problem to drivers.

Environmental Consequences, Cumulative Impacts: Of the 72,000 total acres proposed for treatment, or 62% of the total 116,000 acres of the entire Planning Area, only 500 to 5000 acres is proposed for treatment annually. This represents <1% to 4% of the total Douglas Mountain Planning Area treated per year. Therefore, annual treatments are a very small fraction of the total acreage, and emissions from the proposed treatments are unlikely to be measurable impacts to air quality. Where prescribed fire is the preferred treatment, the State of Colorado, in issuing the burn permit, considers proposed prescribed burns in an area and places restrictions on the

permit to help reduce the negative cumulative effect in a geographical area. Impacts from a prescribed fire are generally of short duration and do not usually result in any long term impacts.

Mitigation: None

3.2.2 Soils

Affected Environment: Table 3 describes the major soil groups (over 2000 acres) that underlie the primary fuel types being considered for planned treatments (PJ/sagebrush, sagebrush/PJ, sagebrush, and ponderosa pine classifications on slopes $\leq 30\%$). Most of these soils are a combination of sand, loam and some clay. The main hazard with these most of these soil types is erosion unless close-growing plant cover is maintained. There are fragile soils (defined here as areas rated highly or severely erodible by wind or water by NRCS OR on slopes $\geq 35\%$ AND they have one of the other following characteristics: surface texture that is sand, loamy sand, very fine sandy loam, silty clay, or clay; a depth to bedrock of $< 20''$; an erosion condition rated as “poor”; or a K-factor >0.32) within the general Planning Area of Douglas Mountain.

Table 3. Soil Summary for Proposed Planned Fuel Treatment Areas

| Soil Map Unit (MU) & Soil Name (Acres in Planning Area) | Map Unit Setting | Description |
|--|--|--|
| MU 162 Rock River sandy loam, 3 to 12% slopes 6006 acres | <u>Elevation:</u> 6,200 to 7,200 feet <u>Mean annual precipitation:</u> 11 to 13” <u>Ecological Site:</u> Rolling Loam | These alluvial fan and hillslope soils are well drained with moderate permeability and medium runoff potential. Available water capacity is moderate and the soil profile is typically up to 60 inches deep, composed mostly of sandy loam and sandy clay loams. |
| MU 57 Detra-Cortyzack complex, 1 to 12% slopes 5159 acres | <u>Elevation:</u> 6,800’ – 7,800’ <u>Mean annual precipitation:</u> 15-17” <u>Ecological Site:</u> Mountain Loam/Deep Loam | These alluvial fan and toeslope soils are well drained with moderately slow to moderate permeability and medium runoff potential. Available water capacity is high and the soil profile is typically up to 60” deep, composed mostly of fine sandy loam and sandy clay loam. |
| MU 109 Joebas-Rock outcrop complex, 5 to 40% slopes 5097 acres | <u>Elevation:</u> 6,000 to 8,000 feet <u>Mean annual precipitation:</u> 11 to 16” <u>Ecological Site:</u> Sandy Juniper | These soils are found on small plateaus and structural benches on mountainsides. They are well drained with moderate to no permeability with very high runoff potential. Available water capacity is very low and the soil profile is typically up to 20” deep, composed of gravelly sandy clay loam before hitting bedrock. |
| MU 50 Cushool fine sandy loam, 3 to 12% slopes 4790 acres | <u>Elevation:</u> 6,000’ – 6,800’ <u>Mean annual precipitation:</u> 11-13” <u>Ecological Site:</u> Rolling Loam | These plateau and hillslope soils are well drained with moderate permeability and medium runoff potential. Available water capacity is low and the soil profile is typically 29 inches deep, composed mostly of fine |

| | | |
|---|---|--|
| | | sandy loam down to bedrock. This soil has limitations that restrict the choice of plants or that require very careful management, or both. |
| MU 90 Grieves-Crestman complex, 10 to 40% slopes 2900 acres | <u>Elevation:</u> 6,000 to 7,200 feet <u>Mean annual precipitation:</u> 11 to 12” <u>Ecological Site:</u> Sandy Foothills and Sandy Juniper | These summit and backslope soils are somewhat excessively to excessively drained with moderately rapid permeability and medium to very high runoff potential. Available water capacity is very low to moderate and the soil profile is typically 18 to 60” deep, composed mostly of fine sandy loam and gravelly loamy sand. |
| MU 64 Emlin loam, 1 to 12% slopes 2118 acres | <u>Elevation:</u> 6,600 to 8,100 feet <u>Mean annual precipitation:</u> 13 to 15” <u>Ecological Site:</u> Deep Loam | These pediment soils are well drained with moderately slow permeability and high runoff potential. Available water capacity is high and the soil profile is typically up to 60”, composed of loam, clay loam and silty clay loam. |

Data taken from *Soil Survey of Moffat County Area, Colorado (2004)*.

With the exception of areas of exposed rock where the threat of soil erosion is low, fuel treatments are limited to slopes less than 30%. Of the nearly 116,000 acre Planning Area, about 1/3 of the Planning Area, or 38,000 acres, has the potential to be treated (that is, contains the four vegetation classification types of primary focus for treatment that occur on slopes 30% or less). Most of this acreage occurs along the northern boundary of the Planning Area.

Environmental Consequences, Proposed Action: Any mechanical activity that causes soil disturbance can have short-term negative impacts to soil productivity, nutrient cycling and to vegetative cover and recovery. These impacts are common with any type of soil disturbance. There is a risk of compaction from the equipment used in the project, which could increase surface flows and erosion, a potential hazard in this terrain. Equipment proposed for the project would involve a masticator or mower that is mounted on a tracked or large rubber-tired skidder, either of which would minimize soil compaction. Compaction would also be reduced if the cover limits are maintained and if treatment is only performed on dry or frozen ground (see Resource-specific Design Features), thereby decreasing ruts and new overland flow patterns.

The proposed treatments could result in an increase in ground cover and therefore soil protection, either by the scattering/ mulching of slash or a positive understory vegetative response to treatment. This increased cover helps slow runoff and increase infiltration into the soil, provides organic matter and nutrients for incorporation into the soil, and reduces erosion. In the long term, vegetative treatments could benefit soil retention by increasing quality and quantity of plant diversity and cover.

Regarding impacts to fragile soils, planned treatments would be limited to slopes $\leq 30\%$, thereby eliminating any planned treatment on steep soils. There are some areas, primarily located on the northern edge of the proposed Planning Area, that occur on soil types rated high potential for wind erosion if heavily disturbed. Project implementation in these soil types will include additional erosion control and/or use techniques, such as mastication or hand thinning, that

results in an increase temporary ground cover (e.g. slash) to reduce or slow runoff and any subsequent soil loss.

Environmental Consequences, No Action Alternative: The no action alternative would analyze all fuels treatments individually and does not allow for integration of fire and fuels management across the landscape in the Douglas Mountain Area. Analyzing potential impacts of individual fuels treatment projects to soils would be similar as described above.

Environmental Consequences, Cumulative Impacts: Proposed size of treatments per year (500 to 5000 acres) represents a small percentage of the overall Planning Area. Once vegetation becomes re-established post treatment, overall soil conditions would be similar or better to pre-treatment conditions. Efforts by surrounding landowners to reduce fire hazards, combined with treatments as proposed here, could reduce fire intensity if wildfire were to occur on Douglas Mountain. This would help reduce adverse impacts to soil stability and function and over the long term would increase soil health on public lands.

Mitigation: None.

3.2.3 Water Quality, Surface

Affected Environment: While there are no perennial surface waters within the proposed Planning Area that are subject to Clean Water Act/ Colorado Department of Public Health and Environment Water Quality Control Commission (CDPHE) standards, what occurs in the Planning Area would have some impact on major downslope/downstream perennial rivers, including the Yampa, Green and Little Snake River, as many ephemeral drainages that flow directly into these rivers originate on Douglas Mountain.

Most state perennial waters within Colorado are subject to classification (uses for which they are presently suitable or intended to become suitable) and water quality standards (both numerical and narrative). The following table describes surface water classifications and any impairment or suspected water quality issue identified by the CDPHE as of 2013:

| Stream Segment Description | Classification | Impairment or Suspected Water Quality Issue |
|---|--|---|
| Yampa River , from a point below the confluence with Elkhead Creek to the confluence with the Green River | Aquatic Life Warm 1 Recreation E Water Supply Agriculture | Suspected sediment concern; high priority recoverable iron impairment |
| Green River , within Colorado (Moffat County) from its entry at the UT/CO border to a point just above the confluence with the Yampa River | Aquatic Life Cold 1 Recreation E Water Supply Agriculture | None |
| Little Snake River , from Powder Wash to the Yampa River | Aquatic Life Warm 2 Recreation E Agriculture | Suspected sediment concern |

Classification definitions:

Aquatic Life Warm 1 = Waters that currently are capable of sustaining a wide variety of warm water biota, including sensitive species or could sustain such biota but for correctable water quality conditions.

Aquatic Life Warm 2 = Waters that are not capable of sustaining a wide variety of warm water biota, including sensitive species, due to physical habitat, water flows or levels, or uncorrectable water quality conditions that result in substantial impairment of the abundance and diversity of species.

Aquatic Life Cold 1 = Waters that are currently capable of sustaining a wide variety of cold water biota, including sensitive species or could sustain such biota but for correctable water quality conditions.

Recreation Class E = Waters used for primary contact (i.e. swimming, rafting, kayaking, tubing) recreation since November 1975.

Water Supply (domestic) = Waters are suitable or intended to become suitable for potable water supplies. After receiving standard treatment these waters will meet Colorado drinking water regulations.

Agriculture = Waters that are suitable or intended to become suitable for irrigation of crops usually grown in Colorado and which are not hazardous as drinking water for livestock.

Reference: Colorado Department of Public Health and Environment Water Quality Control Commission. 2013. Regulations #33, 37, and 93. <http://www.colorado.gov/cs/Satellite/CDPHE-WQ/CBON/1251596876811>

Environmental Consequences, Proposed and No Action Alternatives: The Proposed Action may have some short term effects to the water quality of ephemeral drainages in the Planning Area during times of runoff. These effects would be from the prescribed burning treatment and would result from accelerated soil erosion. Increases in sediment, nitrogen, phosphorous, and cation production are likely in the first couple of years after treatment. With the exception of sediment, these increases would be minor and short lived, returning to pre-treatment levels in a couple of years. Although increased sediment may enter these ephemeral tributaries, an unknown and varying amount of this sediment would be deposited and stabilized further downstream. Stabilized sediments could have beneficial effects to the function of these ephemeral streams and reduce the amount of sediment transport to active or perennial floodplains downstream. The prescribed burn would be ignited under prescribed (or favorable) conditions and would be expected to be of varying intensities in order to create a mosaic burn pattern. This is expected to keep sediment and nutrient yields from increasing to levels that would further degrade existing water quality. The effects of the Proposed Action would be short lived and not out of the natural variability of the area.

Minimal surface disturbance would occur with the proposed mechanical treatments. Little to no effect to water quality would be expected to result from implementing the mechanical fuel reduction treatments. In the long term, the Proposed Action would have a positive impact to water quality, as there will be a reduced potential for large scale wildfire and an expected increase in plant diversity and ground cover, resulting from the planned seeding treatment.

Environmental Consequences, Cumulative Impacts: The Planning Area lies within local watersheds for the three major rivers in the field office (Yampa, Little Snake, and Green Rivers); therefore, activities that occur in this area, planned or not, have the potential to impact water quality in any one of these rivers. The Yampa and Little Snake Rivers remain relatively free-flowing and typically peak in mid- to late May, while the Green River is heavily regulated at the Flaming Gorge Dam and maintains a minimum year-round base flow of around 800cfs. If the proposed treatments were to occur during the same season that other surface disturbing activities or wildland fires occurred anywhere in the same watershed, there could be a cumulative increase

in sediment deposition to one or more of these rivers. If treatments were done early in the growing season, summer thunderstorms would have the greatest potential of carrying sediment to the river. This deposition may not be reworked/evacuated until the following spring runoff. If the treatments occurred in the fall, seasonal low flows might be insufficient to carry the additional sediment input again until the following spring runoff period. The vegetative buffers and post treatment erosion control, however, would reduce the potential for measurable sediment loads from the treatments.

Mitigation: None

3.3 BIOLOGICAL RESOURCES

3.3.1 Invasive/Non-Native Species

Affected Environment: Invasive plant species and noxious weeds occur within the affected area. Hoary cress, downy brome (cheatgrass), Canada thistle and leafy spurge are known to occur within or near this area. Other species of noxious weeds could be introduced by vehicle traffic, livestock, wildlife and other means of dispersal. Within the Planning Area is a sizable infestation of leafy spurge. The primary infestation is about 40 acres with pilot infestations scattered throughout the area. This infestation area has been targeted for treatment through a variety of integrated weed control methods including a prescribed burn. Principals of Integrated Pest Management (IPM) are employed to control noxious weeds on BLM lands in the Little Snake Field Office.

Environmental Consequences, Proposed Action: Access to public lands for dispersed recreation, hunting, livestock grazing management, livestock and wildlife movement, as well as wind and water, can cause weeds to spread. Fire, prescribed or natural, by itself is not successful in controlling the common weeds found in this area. It may however be a useful tool in conjunction with other integrated weed management tools. Monitoring for weed infestations following fire would prevent large scale spread in the area. Additionally, post fire seeding in weed prone areas would aid in preventing infestations. The mechanical methods as proposed would cause little long term disturbance to the herbaceous plant community resulting from invasive species. Adequate desirable vegetation exists in the understory which would provide competition to prevent weed invasions as well as maintain a desirable plant community. Design features as proposed provide additional weed infestation prevention measures.

Environmental Consequences, No Action: This alternative is very similar to the Proposed Action. Weed presence and other introduction potentials would continue to exist. Wildfire would continue to be a potential management consideration. Under this alternative there would not be a tool to provide the ability to be proactive instead of reactive. Additionally, coordination of project and planning efforts would not be as fluid for invasive species management.

Environmental Consequences, Cumulative Impacts: In consideration of existing weed infestations in the vicinity of the project the cumulative impact of potential weed infestations is minimal. Additionally, any existing infestations treated or resulting future infestations, would be

managed in accordance with other public lands in the Little Snake Field Office through the Little Snake Field Office Noxious Weed Prevention Plan. Weed management is a continuous process.

3.3.2 Migratory Birds

Affected Environment: Migratory bird habitats in the Planning Area are comprised primarily of sagebrush stands, oakbrush/mixed mountain shrublands, pinyon-juniper woodlands and ponderosa pine forests. A variety of migratory birds may utilize these vegetation communities during the nesting period (May through July) or during spring and fall migrations. Douglas Mountain provides potential habitat for several species on the USFWS's Birds of Conservation Concern (BCC) List. Those species associated with the Southern Rockies/Colorado Plateau and Northern Rockies regions are presented by habitat affiliation below.

BCC species associated with shrubland habitats include Brewer's sparrow, sage sparrow, sage thrasher and loggerhead shrike. All four birds are summer residents in Colorado and all but the loggerhead shrike nest in sagebrush stands. Nests can be constructed in sagebrush or other shrubs, with some species nesting under shrubs. Shrikes nest in trees in shrubland habitats. All species would likely be nesting in the general area from mid-May through mid-July. Sagebrush is present on all of the parcels and may provide potential habitat for these species. Areas where small trees are encroaching into sagebrush may provide potential nesting habitat for shrikes.

BCC species associated with PJ woodlands include pinyon jay and juniper titmouse. Pinyon jays are loosely colonial nesters and can be found in most PJ woodlands within the LSFO. Juniper titmouse are cavity nesters, and also utilize most of the PJ woodlands within the field office. Both species can be found within Colorado year-round.

BCC species that may utilize ponderosa forests stands include Cassin's finch and flammulated owl. Cassin's finch are a year round resident of Colorado. This species nests in higher elevation forests and move to lower elevations for the winter. Flammulated owls nest in tree cavities and inhabit higher elevation aspen and conifer forests during the summer months.

Raptor species are tied to several different habitat types within the LSFO. Sagebrush and other shrublands provide open spaces for hunting, while rocky outcrops, woodlands, sporadic trees and cottonwood forests provide nesting substrates. There are no documented raptor nest sites within the Planning Area, however, comprehensive nesting surveys have not been completed in this area. Several species of raptors likely utilize the general area, including bald eagles, golden eagles and red-tailed hawks.

More generally, birds associated with these allotments are well distributed in extensive suitable habitats throughout the LSFO and northwest Colorado and habitat-specific bird assemblages appear to be composed and distributed appropriately to the normal range of habitat variability.

Environmental Consequences, Proposed and No Action Alternatives: Since project activities would not be permitted during the nesting period (May 15 – July 15), there would be little chance of take from the described treatment methods. Treatment implementation outside of this critical time would also prevent nest and young abandonment due to human disturbances. Individual birds would likely be displaced from Planning Areas during project implementation

due to noise and an increase in human presence. This disturbance would be minimal and short in duration, with most species returning to the area once project activities are completed.

Fuels treatments would have varying impacts on migratory birds, depending on the habitat requirements for each individual species. Treatments can improve habitats for many species by creating a mosaic of seral stages. Projects designed to open up dense stands of sagebrush or mountain shrubs would benefit species which prefer edge habitats, while decreasing the amount of available habitat for birds that require dense shrubs for nesting or foraging. Projects that remove encroaching pinyon-juniper from sagebrush stands would favor sagebrush obligate species over species which utilize pinyon-juniper woodlands. Prescribed fire or wildland fire use would have the potential to result in conversion from shrublands or woodlands to grass ecosystems. Seeding after fires or treatment would improve habitat by increasing the herbaceous component of the ecosystem. Each project would have a separate DNA or EA before implementation. This will ensure that treatments in each habitat type are limited, providing adequate habitat for species that are tied to these habitats.

Environmental Consequences, Cumulative Impacts: The primary uses of the Douglas Mountain area include ranching and recreation (primarily hunting). In addition, several fuels treatments and wildfires have occurred in the last 10 years in the Planning Area. New fuels treatments have the potential to improve habitat for a variety of wildlife species. However, combined with previous treatments, one habitat type may be favored over another. Since there are large acreages of each habitat type, overtreatment of specific habitats should not become an issue.

Mitigation: Any additional mitigation measures beyond what is specified in the design features would be applied when DNA's are completed for specific projects.

3.3.3 Special Status Animal Species

Affected Environment: There are no Endangered Species Act (ESA) listed or proposed species that inhabit or derive important benefit from the Planning Area. The Douglas Mountain area provides habitat for three BLM sensitive species, greater sage-grouse, Brewer's sparrow and northern leopard frog.

Greater sage-grouse are a BLM sensitive species and a candidate for listing under ESA. Habitat loss and fragmentation resulting from wildfire, energy development, urbanization, agricultural conversion, conversion of sagebrush to other vegetation types (such as PJ woodlands) and infrastructure development are the primary threats to the species (USFWS 2010). Sage-grouse are considered a sagebrush ecosystem obligate species. Sagebrush provides nesting, brooding, and fall and winter cover, as well as forage for sage-grouse throughout the year.

In 2012, Colorado Parks and Wildlife (CPW) updated greater sage-grouse habitat mapping. Preliminary general habitat (PGH) and preliminary priority habitat (PPH) were designated at this time. BLM defines PPH as areas that have been identified as having the highest conservation value to maintaining sustainable greater sage-grouse populations. There are approximately 35,000 acres of PGH and 250 acres of PPH in the Planning Area. There is one active lek near

the Five Springs area and much of the sagebrush in that general area is mapped as nesting and winter habitat by Colorado Parks and Wildlife.

Brewer's sparrows are common in sagebrush stands and mixed brush communities throughout the LSFO. Potential habitat for this species occurs on most parcels that have a sagebrush component.

Northern leopard frogs occupy several stock ponds, wet meadows and riparian areas in the Douglas Mountain area.

Environmental Consequences, Proposed and No Action Alternatives: Vegetation treatments have the potential to benefit sage-grouse or be detrimental, depending on the type of treatment. Treatments designed to reduce sagebrush cover would have a negative impact on grouse in nesting and winter habitats and should be avoided. Treatments that create very small openings (less than an acre) in dense sagebrush may improve sage-grouse habitats, however, these types of treatments must be carefully planned to ensure they are beneficial to the species. Treatments that remove encroaching pinyon-juniper trees or that set back succession in pinyon-juniper woodlands would be beneficial to sage-grouse by increasing the amount of available habitat. Seedings would also be beneficial by increasing the herbaceous component of the habitat, which is important for nest and young concealment. Prescribed burning and wildland fire use have the most potential to impact greater sage-grouse. Any treatment in sage-grouse habitat must meet sage-grouse objectives in order to be considered for implementation. Each project would have a separate DNA or EA before implementation, ensuring that sage-grouse concerns are addressed at the site specific phase of each project.

Impacts to Brewer's sparrow can be found in the Migratory Bird Section of this EA.

Since habitat for northern leopard frogs would not be targeted for treatment, there would be few and very minor impacts to this species from the Proposed Action.

Environmental Consequences, Cumulative Impacts: Cumulative impacts would be similar as those described in the Migratory Bird Section of this EA.

Mitigation: Any additional mitigation measures beyond what is specified in the design features would be applied when DNA's are completed for specific projects.

3.3.4 Special Status Plant Species

Affected Environment: Special status species include those species listed or proposed for listing as threatened or endangered under the Endangered Species Act (ESA), as well as those designated by the BLM as "Bureau sensitive". Bureau sensitive species are designated by the BLM State Director and listed on the BLM Colorado State Director's Sensitive Species List. Any species or populations identified in the future will be given the same protections as those analyzed in detail.

A population of narrow leaf evening primrose (*Oenothera acutissima*) is known to occur within the Planning Area. There are additional plant species which are listed as sensitive near the Planning Area. Most of these plant populations are located on Dinosaur National Monument to the west of the proposed Planning Area. These species include Duchesne milkvetch (*Astragalus duchesnensis*), Woodside buckwheat (*Eriogonum tumulosum*), and Hairy Townsend daisy (*Townsendia strigosa*). While these species are not protected under the ESA, their rarity and potential for listing has resulted in recognition by BLM Colorado that they need particular attention to ensure that management activities do not adversely impact existing populations or destroy habitat. BLM will take all necessary actions to mitigate any adverse impacts to existing populations of these species.

There is a rare plant population of Yampa beardtongue (*Penstemon acaulis* var. *yampaensis*) on the Northeastern edge of the Planning Area. Although this species isn't listed as a special status plant avoiding or mitigating potential impacts to the population should be considered to prevent the inclusion of the species on the Sensitive Species List.

There is one federally listed threatened species, Ute ladies'-tresses (*Spiranthes diluvialis*) with potential habitat along the Yampa River on the Southern end of the Planning Area. However, this species has not been identified on BLM lands within the planning area. An intensive modeling and surveying effort is under way to identify habitat on lands administered by the BLM. Should potential habitat or populations be identified within the Planning Area, separate analysis and consultation with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA will be required.

Environmental Consequences, Proposed Action Alternative: Rare plant species file searches would be conducted before any planned surface disturbing activity. In areas where known species populations occur, planned treatments would include surveying and flagging avoidance areas to prevent adverse impacts to the species populations. Any populations that would be impacted by prescribed fire, mechanical or chemical treatments would be either completely avoided or, in extraordinary circumstances, have seeds collected in accordance with BLM policy prior to treatment. The need to avoid existing populations is uncommon. In order to integrate fire and fuels management across the landscape, natural fires would be managed for resource benefit. The Wildfire Decision Support System (WFDSS) in which the agency administrator and fire management staff with input from resource advisors determine to manage a natural fire for resource benefit would include rare plant species population information.

Environmental Consequences, No Action Alternative: The no action alternative would analyze all fuels treatments individually and does not allow for integration of fire and fuels management across the landscape in the Douglas Mountain Area. Analyzing potential impacts to special status species and rare plant populations would be similar based on site specific analysis.

Environmental Consequences, Cumulative Impacts: Special status species and rare plant populations will be avoided when necessary. This should have limited impacts on the long term management of the populations and habitat. Any natural wildfires managed for resource benefit would include the presence or absence of plant populations in the decision making process. Managing fire and fuels on a landscape level will reduce the likelihood of increasing fire return

interval frequency and fire intensity resulting in the ability to better protect existing special status species populations in the Planning Area.

Mitigation: None

3.3.5 Upland Vegetation

Affected Environment: This section will focus on shrub and grass dominated upland communities. See 3.5.2, Forest Management, for the discussion of upland forest types. General vegetation types and their associated acreage are given in Table 1 in section 1.2

Sagebrush: Communities dominated by sagebrush (*Artemisia* spp.) comprise approximately 26% of the planning area. After pinyon/juniper it is the most common plant community encountered. There are several types of sagebrush communities within the planning area.

Wyoming Big Sagebrush/Grassland. The Wyoming big sagebrush/grassland is a common vegetation cover type in northwest Colorado. It occurs in shallow to moderately deep coarse soil types at lower elevations between 6,000 and 7,500 feet, giving way to basin big sagebrush in deeper and clayier soils, and to mountain big sagebrush in areas above 6,500 feet that are within the 9- to 16-inch annual precipitation zone (Knight 1994). Shrub height varies from as little as 8 inches on shallow sites to around 30 inches in deeper soils. Canopy cover is not as extensive as for either basin or mountain big sagebrush, usually topping out between 30 to 40 percent.

Wyoming big sagebrush often appears as the dominant plant in mosaic communities intermixed with other shrubs and open grasslands. In shallow, rocky to gravelly soils, Wyoming big sagebrush may be co-dominant with black sagebrush, green rabbitbrush, and sometimes winterfat. Grass and forb species vary depending on soil texture, aspect, and slope. Common grass and grass-like species include bluebunch, western, and thick spike wheatgrass, Sandberg and mutton bluegrass, Indian ricegrass, needle-and-thread, threadleaf sedge, and bottlebrush squirreltail. Common forbs include phlox, Hooker sandwort, buckwheat, penstemon, Indian paintbrush, globemallow, and prickly pear cactus. Wyoming big sagebrush is the most frequently eaten sagebrush species and is a staple for pronghorn and greater sage-grouse. It is also one of the dominant species found on antelope and mule deer-crucial winter ranges. Fire is an important component of all sagebrush-dominated plant communities. Depending on the nature of the site, the fire return interval can be between 25 and 100 years (Knight 1994).

Basin Big Sagebrush. Basin big sagebrush is found in moderately deep to deep soils of all soil textures in zones of 10 to 16 inches of annual precipitation (Beetle 1960). It occurs as pockets within Wyoming big sagebrush and salt desert shrub communities, as the dominant plant type along valley bottoms and canyons, and along isolated ephemeral washes. This subspecies of big sagebrush may reach 12 feet in height, with canopy cover reaching 70 percent.

Basin big sagebrush can intermix with serviceberry, green and rubber rabbitbrush, snowberry, bitterbrush, silver sagebrush, and mountain mahogany, depending on the soil depth, annual precipitation, and elevation. Grasses occurring in these communities include basin wildrye, green needlegrass, Idaho fescue, thick spike wheatgrass, Kentucky and mutton bluegrass, and bottlebrush squirreltail. Common forbs include bluebells, groundsel, wild onion, violet,

buttercup, false dandelion, buckwheat, penstemon, Indian paintbrush, globemallow, and prickly pear cactus.

Basin big sagebrush is not a very palatable forage, and usually shows little or no use, even in extreme winters when use levels of other plants is severe; however, it can serve as hiding and thermal cover for mule deer and elk and as habitat for other wildlife species. In some areas, it also provides critical winter habitat for greater sage-grouse when snow covers most other shrubs. Basin big sagebrush often increases in density and cover with livestock overgrazing, and serve as interruptions in the fire cycle. To increase diversity in basin big sagebrush, prescribed fires and chemical and mechanical treatments are employed, resulting in increases of grasses and other understory plants.

Mountain Big Sagebrush/Grassland. Mountain big sagebrush is located in shallow to moderately deep soils at elevations above 6,500 feet, in 12- to 20-inch annual precipitation zones. Mountain big sagebrush also occurs as smaller plant communities at the lower mountain elevations, and intermixes with aspen and conifer woodlands at the periphery of mountain ranges. Shrub height varies from 10 to 30 inches, with canopy cover reaching 50 to 60 percent.

Mountain big sagebrush is usually the dominant shrub in foothill and mountain sagebrush communities, with bitterbrush, serviceberry, snowberry, and mountain mahogany providing subdominant brush diversity. Grasses include Idaho fescue, king spike fescue, green and Colombian needlegrass, Kentucky, mutton, and big bluegrass, elk sedge, and Ross' sedge. Common forbs found in these areas include Indian paintbrush, globemallow, arrowleaf balsamroot, lupine, larkspur, penstemon, and Oregon grape.

Mountain big sagebrush is palatable to wildlife, although browsing is limited during the winter when these habitats become unavailable because of snow. The natural fire recurrence interval in this sagebrush type is 25 to 75 years.

Grassland: Approximately 12% of the planning area is dominated by grass. This includes areas mapped as grass, grass/pj, and grass/sagebrush (see Map 1 and Table 1). This does not include the areas mapped as grass/sparse as these areas are typically very rocky and have a low density of grass cover. Grass dominated sites typically occur on sandier soils, where water is more available and soil, climate, or water availability restricts shrub establishment, or on recovering burned areas where shrub and tree species have not re-established themselves. Common grass species include thick spike wheatgrass, western wheatgrass, slender wheatgrass, bluebunch wheatgrass, Indian ricegrass, needle-and-thread, Sandberg bluegrass, junegrass, and bottlebrush squirreltail. Other shrubs and forbs growing among the grasses are sand sagewort, phlox, Hooker sandwort, bud sagebrush, fringed sagebrush, Wyoming and mountain big sagebrush, rubber rabbitbrush, horsebrush, globemallow and prickly pear cactus (Knight 1994).

Mountain Shrub: The mountain shrub community includes serviceberry, gambel oak, two species of mountain mahogany, and snowberry. This plant community makes up only 1.5% of the planning area although the associated species occur throughout the area. The mountain shrub community primarily inhabits north slopes at elevations above 7000' although true mountain mahogany dominated areas exist at lower elevations in the eastern part of the planning area.

Bitterbrush-dominated plant communities exist on sand and sandy loam soils in the 10- to 14-inch annual precipitation zones. Bitterbrush varies in height depending on soil depth, precipitation, and browsing. It might appear as a low spreading shrub about 6 inches tall or as a tall shrub reaching 6 feet in height. Bitterbrush is often co-dominant with mountain or basin big sagebrush and could be intermixed with silver sagebrush, basin big sagebrush, and rabbitbrush in deep sandy soils. At higher elevations and higher precipitation levels, it occurs in mixtures with sagebrush, snowberry, serviceberry, mountain mahogany, and an occasional chokecherry. Herbaceous plants associated with bitterbrush include grasses such as needle-and-thread, prairie sandreed, Indian ricegrass, sand dropseed, and thick spike wheatgrass and forbs such as lupine, penstemon, sego lily, wild onion, larkspur, and prickly pear cactus.

Bitterbrush is probably the most important winter browse species for deer and pronghorn, and is used by elk and cattle in the fall and spring. It responds best to sagebrush-killing fires (burns occur in the fall and spring), although its resprouting response is fair to moderate at best even under such conditions. Hot summer fires will kill bitterbrush, but some resprouting may occur under cooler burning fires in the spring or fall, especially when the burn is immediately followed by precipitation.

Kinnikinnick, serviceberry, chokecherry or a combination of these species dominate the mesic upland shrub steppe, often in conjunction with snowberry, currant, skunk bush sumac, and Wood's rose. These shrubs could reach 10 to 15 feet in height, occurring in dense stands or in scattered patches, often adjacent to aspen or willow. Understory grasses include basin wildrye, green needlegrass, Columbia needlegrass, and Kentucky bluegrass, and forbs include bluebell, columbine, aster, violet, elkweed, chickweed, and stinging nettle. This community provides hiding and thermal cover for deer, elk, and other wildlife species. The dominant shrubs provide sufficient forage for browsing animals when their softer leaves and shoots are within reach. These shrubs will reestablish following fire, often in less dense patches, making them more accessible to wildlife and livestock.

Mountain mahogany dominates the xeric upland shrub steppe community in the central and western portions of the LSFO on dry rocky slopes or in very shallow, undeveloped soils in the 10- to 14-inch precipitation zone. It occurs, as both the dominant shrub and as an understory of juniper, at higher elevations, mixing with bitterbrush, snowberry, serviceberry, green rabbitbrush, broom snakeweed, and Wyoming big sagebrush. Commonly associated herbaceous plants include bluebunch wheatgrass, Indian ricegrass, Sandberg bluegrass, and mat-forming forbs such as phlox, buckwheat, locoweed, Hooker sandwort, goldenweed, and milkvetch. Mountain mahogany is an important wildlife fall and winter forage.

Gamble oak dominates much of the eastern slopes of the LSFO. This plant community is often intermixed with large aspen colonies in the lower foothills below expansive conifer forests. Other trees and shrubs found in these areas are juniper, mountain mahogany, shrubby cinquefoil and big sagebrush. Herbaceous plants include Indian paintbrush, columbine, bluebunch wheatgrass and green needlegrass. These areas are important year-round transitional and winter habitat for deer and elk. Fire typically lessens the density of these shrub stands, allowing grasses and other herbaceous plants to increase, while still providing wildlife browse. When the shrub cover is removed, herbaceous production is greatly increased.

Salt Desert Shrub: Salt desert shrublands are characterized by drought tolerant shrubs, with few grasses and forbs in the understory. The soils of these areas are shallow saline clays and loams. Typical shrubs in these vegetation types are shadscale, four-wing saltbush, spiny hopsage, greasewood, winterfat, broom snakeweed and bud sagebrush. Big sagebrush and rabbitbrush occur in looser and rockier soils and are much less abundant than in the other desert shrub types. Juniper is occasionally found on the lee side of rocky hills and ridges. Understory vegetation includes globemallow, wild parsley, prickly pear cactus, bluebunch wheatgrass, needle-and-thread, and Indian ricegrass.

The topography of these areas is rough with steeply sloped hills, canyons, and rock escarpments. These areas are often important winter ranges for wildlife and livestock, as they provide forage that is not buried in snow, and the shrubs and rough topography provide cover from wind and predators. The forage of these areas is excellent in the winter, as these shrubs maintain relatively high levels of protein and carbohydrates. Due to this plant community's low cover it rarely supports fire spread and is not targeted for mechanical fuels treatment; therefore it will not be addressed in the environmental consequences section below.

Environmental Consequences, Proposed and No Action Alternatives:

Big Sagebrush/Grassland Communities: This community's response to fire and mechanical fuels treatments is highly dependent upon pre-treatment rangeland health. If the community is healthy and has an adequate amount of native understory herbaceous vegetation, the response to treatment would result in increased herbaceous plant production. If there is little native herbaceous plant presence, invasive species such as cheatgrass and mustard would likely be dominant after treatment. In either case, all sagebrush species are easily killed by fire and would not be a significant component of the community for several to many years depending on the species. Mechanical treatments don't typically remove or kill all sagebrush plants; therefore sagebrush can be a significant plant community component much sooner than if burned.

Wyoming big sagebrush takes the longest to re-establish following treatment, taking 15 – 30 years following fire and 10 – 15 years following mechanical treatment before becoming a significant component of the plant community. Basin big sagebrush is quicker to respond following treatment taking 5 – 20 years to attain a significant presence. This is likely due to deeper soils and more available soil moisture where this species typically occurs. Mountain big sagebrush is the quickest to respond following fire and mechanical treatment, taking 5 – 15 years following treatment to obtain significant frequency and can obtain pre-treatment coverage levels in only a few years following that.

Grasslands: Grass dominated sites are not targeted for planned fuels reduction treatments, but may be involved in unplanned managed wildfires. Grass dominated sites do not typically carry fire well and many times stop a fire's spread. Fire seasons following good spring growing seasons can experience more spread through grasslands, although fire will be of low intensity. Due to the low intensity and short flame residence time, perennial grass species recover quite well.

Mountain Shrub: Most shrub species found in this community re-sprout following fire or mechanical treatment; therefore any treatments are somewhat temporary. Due to the steeper slopes where mountain shrub is dominant, mechanical treatments would be unlikely. Fire is likely the only treatment that would affect the mountain shrub community. Shrub coverage would be reduced for 2 – 5 years following fire with a corresponding increase in herbaceous cover and production. Within 10 – 15 years pre-fire shrub coverage levels would likely be obtained.

Environmental Consequences, Cumulative Impacts: The natural fire return interval for the discussed plant communities must be considered when examining cumulative impacts. For the plant communities involved the fire return interval is between 25 and 100 years (forest communities are discussed in the forestry section). When considering strictly plant community dynamics, the ideal amount of treated acres through fire and mechanical means should approximate the natural fire return interval. Other social, budgetary, and environmental factors dictate that this level of vegetation manipulation cannot occur; even though under the Proposed Action more treated acres could potentially occur than is presently happening. The cumulative effect is that the trend to more shrub and woodland dominated communities would continue and that fires would be potentially more intense over time.

Mitigation: None

3.3.6 Wetlands and Riparian Zones

Affected Environment: Few significant riparian areas are identified on public lands across the Planning Area. Nearly 30 springs/seeps, all 0.1 acre or smaller in size, dot the landscape. Some have been improved as a livestock water source, many have only seasonal flows. Not all are meeting land health standards, mostly due to livestock and wildlife impacts. There are no perennial streams identified in the Planning Area, but there are many ephemeral drainages that may contain a limited number of facultative riparian species, such as cottonwoods.

Environmental Consequences, Proposed Action and No Actions: The proposed treatments would not directly affect the wetland and riparian areas, as any needed firelines or access routes would be constructed outside of these areas. In general, wetland vegetation would recover quickly except for an extreme fire event. Any sedimentation following treatments would be captured and stabilized by the underlying vegetation growing up through it or removed by successive runoff events.

Environmental Consequences, Cumulative Impacts: The Proposed Action, if combined with any fuels reduction efforts of adjacent landowners, helps reduce the potential of a severe wildfire burning through riparian areas.

Mitigation: None

3.3.7 Wildlife, Terrestrial

Affected Environment: Terrestrial wildlife habitats in the Planning Area are comprised primarily of sagebrush stands, oakbrush/mixed mountain shrublands, pinyon juniper and ponderosa pine forests. Each habitat type provides food, cover and shelter for a variety of mammal, bird and reptile species common to northwest Colorado. Large predators in the Douglas Mountain area include mountain lion and black bear. Coyotes, bobcats, jackrabbits, cottontail rabbits and a variety of small rodents, reptiles and birds likely inhabit the general area. Although all of the species are important members of native communities and ecosystems, most are common and have wide distributions within the state, region and field office.

Lower elevation sagebrush flats provide important winter habitat for pronghorn, mule deer and elk. Higher elevation habitats provide calving areas for elk within the project boundary. Merriam's turkeys were released in the Douglas Mountain area about twelve years ago. The turkey population is establishing itself and is utilizing the Jack Springs and Five Springs areas.

Environmental Consequences, Proposed and No Action Alternatives: It is likely that the use of heavy equipment during treatment implementation would result in some short term disturbance to resident wildlife, mainly due to an increase in noise and human presence. Some species would be temporarily displaced from the area to adjacent habitats, but would be expected to return once the treatment is completed.

Fuels treatments would have varying impacts on wildlife species, depending on the habitat requirements for each individual species. Treatments can improve habitats for many species by creating a mosaic of seral stages. Opening dense stands of pinyon and juniper or sagebrush would benefit edge species. Leaving slash, debris, and downed trees provides microhabitat for rabbits, small mammals and songbirds. Mechanical treatments or fire can benefit mixed mountain shrublands by increasing sprouts for ungulate forage and increasing forbs and grasses. Seedings would also be beneficial by increasing the herbaceous component of the habitat, which is important for nest and young concealment and forage for many species. Prescribed burning and wildland fire use have the most potential to treat a large area and convert habitat types. Each project would have a separate DNA or EA before implementation, ensuring that species specific concerns are addressed at the site specific phase of each project.

Environmental Consequences, Cumulative Impacts: Cumulative impacts would be similar as those described in the Migratory Bird Section of this EA.

Mitigation: Any additional mitigation measures beyond what is specified in the design features would be applied when DNA's are completed for specific projects.

3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

3.4.1 Cultural Resources

Affected Environment: The BLM's implementation of fuels reduction and/or treatment projects is considered an undertaking subject to compliance with Section 106 of the National Historic Preservation Act (NHPA). The BLM has the legal responsibility to consider the effects of its actions on cultural resources located on federal land. BLM Manual 8100 Series; the Colorado

State Protocol; and BLM Colorado Handbook of Guidelines and Procedures for Identification, Evaluation, and Mitigation of Cultural Resources provide guidance on Section 106 compliance requirements to meet appropriate cultural resource standards. Section 106 of NHPA requires federal agencies to: 1) identify cultural resources within federal undertaking Areas of Potential Effect (APEs), 2) evaluate the significance of cultural resources by determining National Register of Historic Places (NRHP) eligibility and, 3) consult with applicable federal, state, and tribal entities regarding inventory results, NRHP eligibility determinations, and proposed methods to avoid or mitigate potential impacts to eligible sites.

In Colorado, the BLM's NHPA obligations are carried out under a Programmatic Agreement (PA) among the BLM, the Advisory Council on Historic Preservation, and the State Historic Preservation Officer (SHPO). Should a routine undertaking be determined to have “no effect” or “no adverse effect” by the BLM-LSFO archaeologist, the undertaking may proceed under the terms and conditions of the PA. If the undertaking is determined to have “adverse effects,” project-specific consultation is then initiated with the SHPO.

The culture history of northwestern Colorado is presented among several recent context studies. Reed and Metcalf’s (1999) study of the Northern Colorado River Basin provides applicable prehistoric and historic overviews as compiled by Frederic J. Athearn (1982) and Michael B. Husband (1984). A historical archaeology context also was prepared for the State of Colorado by Church et al. (2007). Furthermore, significant cultural resources administered by the BLM-LSFO are provided in a Class 1 (archival) overview (McDonald and Metcalf 2006), in addition to valuable contextual data provided by synthesis reports of archaeological investigations conducted for a series of large pipeline projects in the BLM-LSFO management area (Metcalf and Reed 2011; Rhode and others 2010; Reed and Metcalf 2009).

A Class 1 cultural resources assessment was completed for the planning area by BLM-LSFO Archaeologist between November 2013 and January 2014. Data reviewed were obtained from BLM-LSFO cultural program project files, site reports, and atlases, in addition to BLM-maintained General Land Office (GLO) plats and patent records. Electronic files also were reviewed through online cultural resource databases including *Compass* (maintained by the Colorado Office of Archaeology and Historic Preservation) and the National Register Information System (NRIS; maintained by the National Park Service). The results of archival research are summarized as follows and based on existing inventory data. Estimates may be revised (up or down) by future inventories and/or consultations.

Background research shows that less than 5 percent (i.e., less than 6,000 acres) of the overall planning area has been subject to Class 3 inventory (intensive pedestrian survey), however, over 200 cultural resources locations—both sites and isolated finds—have been documented within the same. Documented site types include prehistoric lithic concentrations and/or campsites, rock art and rock shelter sites, in addition to historic-age camps and features associated with homesteading, ranching, agriculture, transportation, and mineral extraction/energy development (e.g., building/architectural remains, trash dumps, water control features, road segments, mining features, etc.). Further review of historic-age GLO plats shows evidence of possible (and some known/documentated) features and sites within the subject allotments such as roads and stage/wagon routes, private and community buildings, water control features, and fence lines.

However, many such features are not likely to be considered significant (or NRHP-eligible) and most—mapped or otherwise—serve primarily as evidence for historic land use within the planning area and surrounding vicinity, some of which predates 1900.

Estimating the amount of cultural resources present within the planning area is difficult given the overall lack of prior inventory. However, based on the available data for the surrounding vicinity (i.e., the entirety of the LSFO management area) it is likely that 3,500+ cultural resource sites (and/or features) exist within the overall planning area, of which approximately one-third (~1,000) may later be evaluated as NRHP-eligible or “needs data” (defined as *historic properties*).

Environmental Consequences, Proposed Action: Potential impacts to historic properties may be direct or indirect. Ground disturbing activities—such as mechanical or hand digging, use of heavy equipment, road/line building, burning, etc.—pose direct impacts and can destroy cultural resources. Mechanical treatments involving the use of heavy-tracked and rubber-tired vehicles may cause substantial ground disturbances. Structural features also may be threatened by mechanical treatments as a result of earthmoving, vibration, or direct contact; this is particularly true of wickiup features that are often difficult to distinguish from their natural setting (e.g., the “casual observer” could easily mistake a wickiup feature as a tree snag). Scattered mulch has potential to protect archaeological sites from erosion but does impact integrity. Slash piles also may impact site integrity if placed on or near a sensitive area. Slash piles are usually removed or burned.

Indirect impacts may include increased soil erosion and gullyng, in addition to increased potential for unlawful artifact collection and/or vandalism of cultural resources. Other indirect impacts may include degradation of the historic setting, thereby detracting from the view-shed and historic feeling of nearby cultural resource sites.

Project-specific cultural resources assessment will be required prior to implementation of fuels treatments within the current planning area. If, as a result of new assessment or monitoring, historic properties are found to exhibit potential for or actively occurring impacts, mitigation measures will be identified and implemented in consultation among the BLM-LSFO and SHPO.

Environmental Consequences, No Action Alternative: Same as the Proposed Action. Project-specific cultural resources assessment would be required prior to the implementation of fuels treatments.

Environmental Consequences, Cumulative Impacts: Cumulative impacts to historic properties may occur within or adjacent to vegetation treatment areas. Decreased ground cover, increased ground visibility, and increased erosion may result in the exposure and/or destruction of cultural deposits that would otherwise remain obscured or buried, thereby also raising the potential for illegal collection/destruction of archaeological resources.

Cultural resources are constantly subject to site formation processes or events after creation (Binford 1981; Schiffer 1987). These processes can be both cultural and natural, and may occur instantly or over thousands of years. Cultural formation processes include activities directly or

indirectly caused by humans. Natural processes may include chemical, physical, and biological processes of the natural environment that impinge upon and/or modify cultural materials. A lack of fuels treatments within the planning area could increase the potential for large-scale, uncontrolled wildfires, thereby increasing potential risk to structural features. Increased erosion after large-scale fires also has the potential to destroy buried cultural materials.

Mitigation Measures: The planning area has not undergone a comprehensive cultural resources assessment. Any areas proposed for fuels reduction/treatment would require an appropriate level of assessment prior to project implementation. Should the BLM-LSFO determine that fuels treatment would have an adverse effect on historic properties, mitigation would be developed on a project-specific basis and in coordination with the SHPO and applicable consulting/interested parties.

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3.4.2 Lands with Wilderness Characteristics

Affected Environment: Under FLPMA, wilderness preservation is part of BLM's multiple use mandate, and wilderness characteristics are recognized as part of the spectrum of resource values considered during land use planning. The Little Snake Record of Decision and Resource Management Plan (RMP), October 2011 identified Dinosaur North (45,635.41 acres) located adjacent to Dinosaur National Monument and Wilderness Study Areas as having wilderness characteristics and would be managed to protect naturalness, and outstanding opportunities for primitive recreation and solitude.

Impacts to lands with wilderness characteristics would be considered significant if there was any degradation of the individual wilderness characteristics (naturalness and outstanding opportunities for solitude and primitive recreation) to the degree the value would no longer be present within the specific area. This analysis is based on the assumption that lands identified as having, or as likely to have wilderness characteristics contain wilderness values (e.g., naturalness, outstanding opportunities for solitude or primitive recreation).

Environmental Consequences, Proposed Action: Wildland fire use would be the preferred method of fuel reduction within the lands managed to protect wilderness characteristics, although some areas could be targeted for limited prescribed fire or clearing, depending on the nature of the area and the fuel conditions. The presence of work crews, fuels reduction activities (such as thinning and clearing vegetation) and the potential use of power tools could have short-term, minor impacts to wilderness characteristics, such as solitude and naturalness. Management activities associated with this alternative would result in short-term, minor impacts because work crews would only be present for a brief period of time, areas affected would be small, and with implementation of mitigation measures, recovery of the areas' soils and vegetation would be rapid.

Impacts to wilderness characteristics over the long-term would be beneficial and moderate in intensity as fire is restored to the areas managed to protect wilderness characteristics and the areas return to a more natural range of variability in regards to fire. Fires of mixed severity would be more typical of the historic fire regime and would add to the wilderness characteristics as being shaped and maintained by natural disturbance events such as fire.

Environmental Consequences, No Action Alternative: The no action alternative would analyze all fuels treatments individually. Analyzing potential impacts of individual fuels treatment projects to lands managed to protect wilderness characteristics would be similar as described above.

Environmental Consequences, Cumulative Impacts: Implementation of the Proposed Action would, in the short-term, continue the cumulative minor adverse effects that currently exist due to human activities in the areas managed to protect wilderness characteristics. However, the plan provides for long-term, beneficial effects to these areas through the reduced potential for wildland fire and associated fire-suppression activities, which can cause adverse impacts. Along with the presence of backcountry users, firefighter presence during wildland fire use events and prescribed fires would have a negligible to minor short-term adverse cumulative effect. Aircraft overflights associated with fire management activities and other administrative and commercial uses may temporarily detract from user experience. Reasonably foreseeable future actions would be anticipated to contribute minor to moderate cumulative effects on wilderness characteristics long-term, as fire is restored as a natural disturbance event across the landscape and increasingly offsets effects associated with non-fire related activities. Overall, impacts of actions combined with impacts of other actions that could affect lands with wilderness characteristics, would result in negligible to minor, short-term, adverse, cumulative impacts and minor to moderate long-term beneficial effects.

There would be short-term, negligible to minor, adverse impacts to lands with wilderness characteristics due to the presence of work crews, the additional noise associated with fire use and firefighting activities, and the potential use of equipment in or bordering lands with wilderness characteristics. The effects to wilderness characteristics would be moderate and beneficial due to the reduction in fuel loads, which would reduce the risk of catastrophic wildland fire.

Mitigation: All fire management activities affecting lands with wilderness characteristics areas would be consistent with the minimum requirement concept. This concept is a documented process used to determine if administrative activities effecting wilderness characteristics or the visitor experience are necessary and how to minimize impacts. The minimum requirement concept would be applied as a two-step process that determines (1) whether or not the proposed fire management action is appropriate or necessary for administration of the area as lands with wilderness characteristics and does not pose a significant impact to naturalness, and outstanding opportunities for primitive recreation and solitude; and (2) the techniques and type of equipment needed to ensure that impact to wilderness characteristics is minimized.

3.4.3 Native American Religious Concerns

Affected Environment: Four Native American tribes have cultural and historical ties to lands administered by the BLM-LSFO. These tribes include the Eastern Shoshone, Ute Mountain Ute, Uinta and Ouray Agency Ute, and the Southern Ute.

American Indian religious concerns are legislatively considered under several acts and Executive Orders including the American Indian Religious Freedom Act, the Native American Graves Environmental Assessment Protection and Repatriation Act, and Executive Order 13007 (Indian Sacred Sites). In sum, and in concert with other provisions such as those found in the NHPA and Archaeological Resources Protection Act, these acts and orders require the federal government to carefully and proactively consider the traditional and religious values of Native American culture and lifeways to ensure, to the greatest degree possible, that access to sacred sites, treatment of

human remains, the possession of sacred items, conduct of traditional religious practices, and the preservation of important cultural properties are not unduly infringed upon. In some cases, these concerns are directly related to “historic properties” and “archaeological resources.” Likewise, elements of the landscape without archaeological or human material remains also may be involved. Identification of Native American concerns is normally completed during land-use planning efforts, reference to existing studies, or through direct consultation with tribes.

Environmental Consequences, Proposed Action and No Action Alternatives: Items, sites, or landscapes determined as culturally significant to the tribes can be directly or indirectly impacted. Direct impacts may include, but are not limited to, physical damage, removal of objects or items, and activities construed as disrespectful (e.g., installation of portable toilets or water control features near a sacred site). Indirect impacts may include, but are not limited to, prevention of access (hindering the performance of traditional ceremonies and rituals), increased visitation of an area, and potential loss of integrity related to religious feelings and associations.

There are no currently known items, sites, or landscapes determined as culturally significant within or immediately adjacent to the planning area. The Proposed Action does not prevent access to any known sacred sites, prevent the possession of sacred objects, or interfere with the performance of traditional ceremonies and/or rituals.

Consultations for individual fuels/treatment projects will be performed in conjunction with project-specific cultural resource assessments.

Environmental Consequences, Cumulative Impacts: Fuels treatments could result in either the alteration or restoration of the landscape and/or vegetation as ancestrally known by the tribes. Cultural resources are constantly subject to site formation processes or events after creation (Binford 1981; Schiffer 1987). These processes can be both cultural and natural, and may occur instantly or over thousands of years. Cultural formation processes include activities directly or indirectly caused by humans. Natural processes may include chemical, physical, and biological processes of the natural environment that impinge upon and/or modify cultural materials. A lack of fuels treatments within the planning area could increase the potential for large-scale, uncontrolled wildfires, thereby increasing potential risk to structural features. Increased erosion after large-scale fires also has the potential to destroy buried cultural materials.

Mitigation Measures: Currently, there are no known adverse impacts to any culturally significant items, sites, or landscapes within the planning area. If new information is provided by consulting tribes, additional or edited terms and conditions of land-use and/or mitigation may be required to protect resource values. Future assessment and consultation will occur during the BLM’s review of individual treatment projects and/or management actions within the current planning area. Should the BLM-LSFO identify adverse impacts, further discussion regarding potentially significant/sensitive sites and possible protection or mitigation strategies would be warranted.

3.4.4 Paleontological Resources

Affected Environment: Occurrences of paleontological resources are closely tied to the geologic unit that contains them. The probability for finding paleontological resources can be broadly

predicted from the geologic units present at or near the surface. The Potential Fossil Yield Classification (PFYC) system classifies geologic units based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts. The higher PFYC Class number indicates a higher potential for finding paleontological resources. The fuels treatment polygons are in geologic units designated as PFYC-3 and PFYC-5.

TABLE 4

| PFYC CLASS | ACRES | DESCRIPTION |
|-------------------------------|--------------|--|
| Class 3 – Moderate or Unknown | 16,336 | Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential. |
| Class 5 – Very High | 17,537 | Highly Fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils, and that are at risk of human-caused adverse impacts or natural degradation. |

Environmental Consequences, Proposed and No Action Alternatives: Fuels reduction and wildfire management activities would occur in vegetative cover; it is unlikely that bedrock would be penetrated.

Environmental Consequences, Cumulative Impacts: Past, present and reasonably foreseeable activities include continued fuels reduction, wildland fire, ranching, and mineral related activity, and recreation would continue. If these continued activities disturb geologic formations with PFYC 3 and 5, scientifically significant fossils on 33,873 acres could be disturbed or destroyed. The Proposed Action could incrementally add to the general erosion. Erosion could cause exposure of formations containing the fossils. Increased human activity in the area could result in some unauthorized collection of fossil resources.

In some cases, surface disturbance may have a beneficial impact on paleontological resources where could expose additional outcrop areas for study, or public education/interpretation.

Mitigation: The Proposed Action would occur in vegetative cover; it is unlikely that bedrock would be penetrated. Adherence to the design features would minimize impacts to paleontological resources.

Reference:

Armstrong, Harley J. and Wolny, David G., 1989, Paleontological Resources of Northwest Colorado: A Regional Analysis, Museum of Western Colorado, Grand Junction, CO, prepared for Bur. Land Management, Vol. I of V.

Miller, A.E., 1977, Geology of Moffat County, Colorado, Colo. Geol. Surv. Map Series 3, 1:126,720.

3.4.5 Visual Resources

Affected Environment: Visual resources are the visible physical features of a landscape to which concerned or visually sensitive publics assign scenic value. Scenic values in the LSFO have been inventoried as Visual Resource Inventory (VRI) conditions, and VRM objectives were established in the LSFO RMP. VRM objectives corresponding to the various management

classes provide standards for analyzing compliance with RMP VRM objectives. Projects are evaluated using the Contract Rating System to determine if it meets VRM objectives established by the RMP. VRI conditions, supplemented by site and area analyses of Proposed Actions, are the basis for evaluating the effects of proposed projects on the human environment.

The Planning Area, proposed for fuels reduction, occurs on BLM public surface land in areas where fuels reduction activities that achieve multiple resource benefits have been ongoing for many years.

The Douglas Mountain Unit has a scenic quality rating of B because of its rounded, vertical mountains and some escarpments; few power lines, routes, ranches; and it being mostly undeveloped with dense vegetation with large patches of sage and grass, or pinyon/juniper and ponderosa pine. The lack of human encroachment and natural appearing landscape has also identified the majority of the Planning Area into four Wilderness Study Areas surrounded by Lands with Wilderness Characteristics. The area is predominately used for hunting, with occasional use for sightseeing, hiking, and shed hunting.

The Planning Area has a Visual Resource Management objective of Class II and Class III within lands managed for Wilderness Characteristics (e.g., Dinosaur North). Overall Visual Resource Inventory Classification is Class III, moderate.

- Class II Objective: The objective to this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- Class III Objective: The objective of this class 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.

Wilderness Study Areas, with a VRM objective of Class I (e.g., Ant Hills, Chew Winter Camp, Peterson Draw, Vale of Tears) have been excluded from this EA.

Because the Planning Area is in the Visual Distance Zone of Background where areas are seen beyond the foreground-middleground zone to a distance of about 15 miles away, activities and changes to the landscape in the zone would be generally less visible. However, the potential visual impact of vegetation management activities would increase as the viewer's attention is focused toward a key viewpoint such as Douglas Mountain which dominates the landscape and is highly visible from State Highway 318. Naturally-occurring changes to the existing scenic value of views are also likely to occur that can affect vegetation and landforms within the Planning Area.

Environmental Consequences, Proposed Action: The vegetation management activities likely to occur at recommended treatment areas within the Planning Area would consist of a number of various methods, including prescribed, natural, mechanical, and chemical treatment. Because vegetative cover comprising the Planning Area varies significantly, the likelihood of any one management activity occurring over a sufficiently large area to substantially adversely affect visual quality is minimal.

Prescribed burns have the potential to temporarily but adversely impact visual quality or character of a mountainside, but would also have the potential to substantially improve visual quality by removing younger specimens within the understory and thinning the density of tree stands and brush-laden areas. Prescribed burns also provide the beneficial impacts of promoting new growth, particularly native grass, forbs, and wildflowers.

Prescribed burns would, however, produce smoke that may temporarily block distant vistas due to reduced visibility. This impact is reduced by existing fire management and prescribed burning policies, guidelines, and regulations that stipulate when and under what conditions prescribed burns can occur and would occur only over a short period of time. By only conducting prescribed burns during those periods when conditions are optimal, and by conducting all pre-burn actions according to the accepted guidelines and regulations in place, the amount of smoke produced during prescribed burns, the length of time views are impacted, and the potential for substantial adverse effects on scenic vistas would be reduced to a less-than-significant level. By only burning part of the Planning Area or recommended treatment area at one time, aesthetic values can be maintained. Potential impacts that may result from smoke produced during prescribed burns are further mitigated by implementation of the following best management practices (BMPs).

Natural wildland fires, especially large severe fires, change the landscape in a way that can degrade visual quality; however, these fires are managed in accordance with the resource goals and constraints identified through the Wildfire Decision Support System as described in the Proposed Action.

Short-term adverse visual impacts would be associated with mechanical and chemical treatments. For example, thinning hazardous forest fuels would change the visual character of the forest viewshed. Slash piles would create short-term visual impacts until piles are burned and the burned spots are seeded. These treatments would reduce the potential for negative long-term visual impacts associated with a stand-replacement fire. Measures such as feathered fuel breaks and treating areas in a mosaic pattern would help reduce visual impact of reducing hazardous fuels by thinning forestlands or using prescribed burns.

Environmental Consequences, No Action Alternatives: Treatments anticipated with both alternatives would help reduce the risks of wildland fire impacts.

Environmental Consequences, Cumulative Impacts: Past and present fuel reduction projects and wildfires in the Planning Area have resulted in visual impacts through vegetation disturbance and removal from burning, mechanical treatments, and vehicle use. The Proposed Action would add visual impacts lasting until the disturbed land has successfully reclaimed.

Other management efforts within and outside the Planning Area boundaries such as oil and gas development, gravel pits, powerline or pipeline right of ways, and surface disturbing activities on private lands could produce long-term cumulative impacts on visual resources. However, currently there are no pending or foreseeable activities of this nature.

Mitigation: None.

3.4.6 WASTE, HAZARDOUS AND SOLID

Affected Environment: The Resource Conservation and Recovery Act (RCRA) of 1976 established a comprehensive program for managing hazardous wastes from the time they are produced until their disposal. U.S. Environmental Protection Agency (EPA) regulations define solid wastes as any “discarded materials” subject to a number of exclusions. The Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980 regulates mitigation of the release of hazardous substances (spillage, leaking, dumping, accumulation, etc.) or threat of a release of hazardous substances into the environment. Civil and criminal penalties may be imposed if the hazardous waste is not managed in a safe manner and according to regulations. The Colorado Department of Public Health & Environment (CDPHE) administers hazardous waste regulations for oil and gas activities in Colorado. There are no known hazardous materials present in the fuels reduction area.

Environmental Consequences, Proposed and No Action Alternatives: Potential releases of hazardous materials could occur due to vehicle and equipment operations on site. Coolant, oil, hydraulic fluid, and fuel are materials that could potentially be released during while fuels reduction equipment is operating. The potential for releases of any of these materials is low and if a release were to occur, it would be minimal and highly localized and not result in an adverse impact to the area.

Environmental Consequences, Cumulative Impacts: There are no past, present, or adjacent hazardous materials issues that would result in identifiable cumulative impacts.

Mitigation: None

3.5 RESOURCE USES

3.5.1 Forest Management

Affected Environment:

Ponderosa Pine: Ponderosa pine occurs on the higher elevations of Douglas Mountain. It is often interspersed with pinyon/juniper, mountain mahogany, sagebrush, serviceberry, bitterbrush, and snowberry. These stands occupy approximately 12,400 acres, and grow between 7,000 and 8,600 feet in elevation. Sites on which ponderosa pine grows in the area are typically very marginal for the species, with very low site indices. They are typically at the lower end of

the species' precipitation range. Soils are extremely rocky and very shallow, with trees often growing out of cracks in the sandstone. The resulting stands are very open, with trees often 300 to 500 years old. These stands exhibit poor vigor and are susceptible to mountain pine beetle attack and in many cases are being encroached upon by pinyon and juniper.

Pinyon/juniper: Juniper and Pinyon/juniper stands are the most prevalent vegetation types in the planning area encompassing 50,000 acres. This includes areas where pinyon and juniper are mixed with other vegetation types but pinyon/juniper is the dominant component. These two tree species are often referred to together, but because of the combination of soils, elevation, precipitation, and topography, Utah juniper occurs more frequently in this plant association. Pinyon pine becomes more frequent as elevation increases. Given the same precipitation and elevation, pinyon typically occurs on shallow well drained, rocky soils, and northerly aspects. Juniper typically occurs on drier southerly aspects and on deeper heavier soils containing more clay and less available moisture. The result is that juniper is often found in association with sagebrush along the edges of valley bottoms.

Forest Products: There is currently little commercial demand for forest products in the Little Snake Field Office. This is due to the low quality of timber and the remoteness of potential timber stands. Firewood, Christmas trees, and to lesser degree, post and poles are the forest products utilized by individuals. Demand for these products is also relatively low with an average of 80 permits issued annually for these products. As a result, overall forest health and ecosystem diversity rather than forest products is the main goal of the forestry program.

Environmental Consequences Proposed Alternative:

Ponderosa Pine: The Proposed Action alternative allows for more opportunities to allow fires to burn for resource benefit in the polygon containing ponderosa pine. In some areas of Douglas Mountain, mountain shrub species, sagebrush, and pinyon/juniper are increasing in the understory of ponderosa stands; thereby increasing potential fire behavior and ponderosa mortality from fire. However, in most areas, canopy bulk density is not high enough to sustain long crown fire runs. As a result, most fires in the ponderosa pine are of mixed severity. Fire could still be beneficial in these areas by removing competition and providing a suitable seed bed for ponderosa regeneration. Past fires have also shown that the very old trees (>250 years old) and younger smaller trees are most likely to be killed in moderate to high intensity fire. The discontinuous nature of the ponderosa stands makes a large catastrophic fire unlikely except in the most extreme conditions.

Fuels reduction treatments that target ladder fuels and encroaching species should reduce the chances of significant ponderosa mortality and result in healthier, more vigorous stands of ponderosa pine. Prescribed fire treatments of low to moderate intensity should reduce competition for moderate to older trees and provide the mineral soil needed for seedling establishment.

Pinyon/Juniper: Most fires in the planning area occur in the pinyon/juniper woodlands. Under this alternative, more acreage is available for multiple objectives management of fires including resource benefit.

Pinyon/juniper fires of greater than 30 acres typically occur infrequently (200 – 400 years) but with high intensity resulting in nearly total mortality of the two species within the burned area. An exception to this is areas where pinyon/juniper is encroaching into more productive sagebrush sites, where fire may be more frequent but is still of high intensity. Re-establishment of pinyon/juniper following fire is very slow; taking up to 75 – 100 years before the area would be considered a forested site.

Allowing managed fires in pinyon/juniper woodlands would break up fuel continuity and create a mosaic of age classes and potentially reduce the chances of large catastrophic fires. Because it takes relatively extreme conditions for pinyon/juniper fires to significantly spread, fires in this fuel type must be allowed to burn under relatively extreme conditions in order to have any appreciable effect on annual burned acreage. Though not a forestry issue, pinyon/juniper stands with little understory vegetation are susceptible to weed infestation following fire if the burned area is not seeded afterward.

Environmental Consequences No Action Alternative: As noted, the limited commercial and personal use of forest products will continue in much the same manner under either alternative. The basic effects and short term implications of managed fires and fuel treatments are essentially the same with either alternative. By continuing the practice of individual NEPA documentation for each proposed fuels treatment, cumulative and associative impacts may be harder to identify and analyze.

Environmental Consequences, Cumulative Impacts: The Proposed Action alternative allows for more forested areas to have fires managed for resource benefit. If noticeable increases in annual burned acreage do occur, the trend of understory and hazardous fuels build-up will be slowed or reversed and the threat of larger more intense wild fires reduced. If however, competing resource uses and social concerns dictate mostly suppression responses to fires, the cumulative effects will be much the same as is occurring under present management (no action alternative) and the increasing threat of larger and more damaging wild fires will continue.

Mitigation: If significant burned acres occurs either through fires managed for resource benefit or full suppression fires, future fuels treatments will need to be accessed as to their location and scope, and timing to avoid negative cumulative effects.

3.5.2 Livestock Operations

Affected Environment:

The following BLM grazing allotments, in whole or in part, are within the proposed planning area, some allotments have multiple permittees (common use):

| Allotment # | Allotment | Livestock Kind | Season of Use (SOU) | % Public Land | Animal Unit Months (AUMs) |
|-------------|-----------|----------------|---------------------|---------------|---------------------------|
|-------------|-----------|----------------|---------------------|---------------|---------------------------|

| | | | | | |
|-------|--------------------|-----------------------|--|-----|-------|
| 04306 | East Douglas Mtn. | Cattle | 03/01 – 02/28 | 63 | 637 |
| 04307 | Cross Mtn. | Cattle/Sheep | 05/01 – 11/30 Cattle 03/01 – 05/30 11/01 – 02/28 Sheep | 73 | 1,370 |
| 04308 | Sawmill Canyon | Cattle/Sheep | 10/01 – 12/15 Cattle 03/01 – 04/10 11/30 – 02/28 Sheep | 75 | 1,470 |
| 04309 | Teepee Draw | Cattle | 07/01 – 09/25 | 77 | 322 |
| 04310 | Smelter Hill | Authorization Pending | Authorization Pending | 72 | 446 |
| 04311 | Thompson Basin | Horse/Cattle | 03/01 – 05/15 12/01 – 02/28 | 43 | 784 |
| 04313 | Upper Rye Grass | Authorization Pending | Authorization Pending | 51 | 315 |
| 04314 | Deer Valley | Cattle | 06/02 – 10/15 | 28 | 74 |
| 04315 | Browns Draw | Authorization Pending | Authorization Pending | 94 | 773 |
| 04316 | Peterson Draw | Authorization Pending | Authorization Pending | 62 | 550 |
| 04317 | Holland Draw | Cattle | 06/01 – 10/31 | 84 | 182 |
| 04320 | Browns Park | Cattle | 03/01 – 06/15 10/15 – 02/28 | 79 | 4,859 |
| 04323 | West Douglas Mtn. | Cattle/Horse | 05/16 – 10/31 | 43 | 924 |
| 04339 | North Zenobia Peak | Cattle | 06/02 – 10/15 | 100 | 45 |

Environmental Consequences Proposed and No Action Alternative: Overall there would be beneficial impacts to ecological resources, subsequently benefiting forage resources in terms of quantity, vigor, quality, and diversity. There would be short term adverse impacts related to any type of treatment rest or exclusion from livestock, but the long term beneficial impacts far outweigh any short term adverse impacts. Any benefit to forage resources is not anticipated to permanently change (increase or decrease) any authorized use in regards to active AUMs.

Environmental Consequences, Cumulative Impacts: The various forage resources on these allotments have been affected and influenced by a variety of natural and artificial influences over the years. BLM records indicate that the lands within the proposed Planning Area have been grazed by livestock, since the 1930's though it is likely that livestock have grazed these lands longer. Additional herbivory by elk, mule deer, and pronghorn antelope occurred prior to human settlement and will continue to do so alongside domestic livestock.

With the potential for future sage grouse specific management, habitat and ecological improvements are appropriate so that all public land uses may continue into the future with minimal impacts.

Future use on adjacent private lands would likely continue to include livestock grazing as a primary use in addition to energy development, recreational use and farming. When added to the existing activities, approval of Proposed Action alternative would not cause undue cumulative damage to public land livestock management and associated livestock operations.

Mitigation: None

3.5.3 Recreation

Affected Environment: The proposed planning area is a popular recreation hub which provides a diversity of recreational activities such as camping, equestrian, hiking, OHV enjoyment, site seeing, antler collecting and big game hunting, which is the most likely and popular of the activities listed. Motorized use occurs seasonally but primarily during the big game hunting season as the public travels from one point to another. Several Special Recreation Permittee's are authorized for Guided Big Game Hunting and Outfitting in the proposed Planning Areas during big game hunting seasons.

Environmental Consequences, Proposed and No Action Alternatives: Depending on the time of year, the use of managed natural and prescribed fire would result in displacing dispersed recreation users from the proposed Planning Areas during wildfire or prescribed fire treatments. Contingent on the type of recreational activity, this impact may last up to several years after the fire. Fire near dispersed recreation sites and sought after destinations could affect the quality of a visitor's experience due to smoke or out of prescription (naked) burned areas. Big game species such as elk, pronghorn, bear or deer that are sought after during the big game hunting seasons could temporarily be displaced during the proposed project, pending time of year. Temporary closures of the prescribed fire areas could also impact Special Recreation Permit Permittie's associated with big game hunting by preventing access. Mechanical treatments could also impact the public negatively by the noise and safety issues associated with the method chosen i.e. tree mastication equipment.

Using prescribed fire to create fire breaks could be beneficial in protecting dispersed recreation sites. Consumptive (such as hunting) and non-consumptive (such as wildlife viewing) wildlife activities would be impacted during prescribed fire or wildfire treatments, however treatments would create a positive impact by increasing the quality of wildlife habitat throughout time. In the long-term, vegetative mosaics from managed natural and prescribed fires could enhance the recreational visitor's experience.

Environmental Consequences, Cumulative Effects: Short term adverse effects from the temporary restriction of recreational activities within the units would occur. However, the long term beneficial effects by effectively managing forest through fuel reduction can impact recreational activities within the units while mitigating for the potential wildland fires would

provide a positive long term impact for the public's health, safety and their enjoyment. The project would also provide improved essential wildlife habitat.

Mitigation: None

CHAPTER 4– PUBLIC LAND HEALTH STANDARDS

4.1 INTRODUCTION

The Douglas Mountain landscape was assessed for compliance with the Colorado Standards of Public Land Health by an interdisciplinary team consisting of 4 Rangeland Management Specialists, 3 wildlife biologists, and one soil/water/air specialist between June 21 and 25, 2004.

4.2 COLORADO PUBLIC LAND HEALTH STANDARDS

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.

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

Finding of most recent assessment: Standard met. No unacceptable accelerated erosion was noted at any site, although two sites had slight signs of accelerated erosion. On these sites, various combinations of flow pattern development, slight pedestalling, evidence of soil movement, or less than ideal surface litter distribution was evident. Overall, the erosional condition of soils throughout the landscape was excellent and all sites met the upland soils standard with respect to soil surface quality indicators.

Proposed and No Action Alternatives: Vegetation management is the main component of both alternatives and would result in actions that could maintain or improve soil permeability. The proposed action has specific slope restrictions for fuels treatments in order to avoid accelerated erosion. Fuel treatments conducted using resource protection measures will not preclude this standard from being met under either alternative.

4.2.2 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.

Finding of most recent assessment: Few significant riparian areas are identified on public lands (~4 acres) across the 116,000 acre planning area. All are springs or seeps, many of which have been improved as a livestock water source; others have only seasonal flows. Not all are meeting land health standards, mostly due to livestock and wildlife impacts. There are no perennial streams identified in the planning area, but there are many ephemeral drainages that may contain a limited number of facultative riparian species, such as cottonwoods.

Proposed and No Action Alternatives: The proposed treatments would not directly affect the wetland and riparian areas, as any needed firelines or access routes would be constructed outside of these areas. In general, wetland vegetation would recover quickly except for an extreme fire event. Any sedimentation following treatments would be captured and stabilized by the underlying vegetation growing up through it or removed by successive runoff events. Fuel treatments conducted using resource protection measures will not preclude this standard from being met under either alternative.

4.2.3 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.

Finding of most recent assessment:

Standard not met. Poor perennial grass diversity or abundance, poor sagebrush vigor, excessive annual weeds, and the presence of noxious weeds were indicators that led 30% of visited sites to fail this standard.

Annual weed problems were expressed by an overabundance of cheatgrass. Noxious weeds were present in the form of leafy spurge. While cheatgrass presence reflects past disturbances of fire and concentrated livestock use, leafy spurge was accidentally introduced to the area and is capable of invading healthy plant communities under good management. While the leafy spurge has remained highly localized for a number of years, it has the potential to spread further without aggressive control efforts. Cheatgrass in the ponderosa woodlands should decrease with increasing canopy cover of ponderosa, but will persist in other areas where it is present without implementing biological or chemical controls. Areas lacking cheatgrass are highly susceptible to invasion if they are subjected to disturbance, especially fire. Rehabilitative seedings and/or grazing treatments should be considered immediately following any wild or prescribed fires in this landscape to keep cheatgrass in check. Problems with perennial grass abundance or diversity are likely a result of season-long grazing use over a number of years coupled with persistent drought conditions and heavy use by elk. Seed sources are still present, but perennial grasses will need the opportunity to produce consistent seed crops and the ability to re-establish with a minimum of utilization in the spring and fall. Elk population data needs to be considered when reviewing active AUMs available on grazing permits on Douglas Mountain.

Elsewhere, production, vigor, and plant composition were meeting standards. Good age class distribution among shrubs, good abundance and diversity of perennial grasses, and good forb diversity were prevalent in most areas. In some areas, heavy elk use was noted, but community resilience remained intact. Brush beatings that were conducted in recent years were responding well with perennial grasses and forbs responding strongly to the removal of sagebrush.

The landscape is providing productive habitat for a variety of mammalian and avian species. Nineteen of the twenty sites visited are currently meeting the standard for productive wildlife communities. The exception is the leafy spurge present in Teepee Draw. The leafy spurge was introduced to this site through emergency hay feeding after a severe winter storm

stranded livestock in the 1950's (Bill Fawcett, pers. com.). This area failed to meet this standard with respect to wildlife due to the presence of this noxious weed which is also contributing to a decreased abundance of native plants and heavy browsing on what remains. The leafy spurge must be treated in order to allow this site to be capable of meeting this standard and to prevent the infestation from spreading to other parts of the landscape. Seeding native grasses and forbs may also be necessary in order to provide adequate wildlife habitat at this site.

Proposed Action and No Action Alternatives: The Proposed Action should lead to more plant diversity as a result of increased burned or mechanically treated acres. The no action alternative involves the same vegetation management but perhaps on a smaller and less coordinated scale. The proposal to seed wildfires occurring where there is little understory perennial vegetation should mitigate the potential for weed and noxious plant infestation into these areas. Recent seedings following wildfire have shown this to be true. Herbaceous vegetation isn't typically disturbed during mechanical fuels treatments and should not contribute to weed proliferation but does create a mosaic of shrub and tree age classes. Chemical treatments typically target undesirable and noxious weeds. Overall the proposed action and to a lesser degree the no action alternative should help move the landscape to meeting this land health standard. Productive wildlife habitat should continue to be expressed in this landscape.

4.2.4 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.

Finding of most recent assessment:

Standard Met. Most threatened and endangered plant and animal species that can be found within the Douglas Mountain Landscape are found on lands managed by the National Park Service in Dinosaur National Monument. Two BLM sensitive plant species, narrow-leaf evening primrose and mountain clover have either been found or have habitat on BLM land within the landscape. One forty acre parcel along the Yampa River that is managed by the BLM provides habitat for the razorback sucker, Colorado pikeminnow and potentially for bald eagle. Habitat conditions are acceptable for these species and no management changes are needed at this time in order to protect these species.

White tailed prairie-dogs and greater sage-grouse are two special status species that may be found within this landscape. Habitat for both species is limited to lower elevations that do not have trees present. One white-tailed prairie dog colony was found within this landscape however, this town was not active and is believed to have died off from a plague outbreak. Although greater sage-grouse have not historically occupied this landscape, some sagebrush habitats appear to be capable of supporting sage grouse. One site visited showed signs of use by sage grouse. Further efforts should be conducted to determine the extent of use by sage grouse within this landscape.

The landscape is currently meeting this standard and will continue to meet this standard in the future.

Proposed Action: The Proposed Action would not preclude this standard from being met.

No Action Alternative: This standard would continue to be met under the Proposed Action.

4.2.5 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.

Finding of most recent assessment: While there are no perennial surface waters within the proposed planning area that are subject to this standard, what occurs in the Planning Area would have some impact on major downslope/downstream perennial rivers, including the Yampa, Green and Little Snake Rivers, as many ephemeral drainages that flow directly into these rivers originate on Douglas Mountain. As of 2013, CDPHE has identified a suspected sediment issue in the portions of the Yampa and Little Snake Rivers that are influenced by the planning area.

Proposed and No Action Alternatives: Minimal surface disturbance would occur with the proposed mechanical treatments and little to no effect to water quality would be expected to result from implementing treatments. Implementation of resource protection measures will help reduce the overall sediment load potentially carried by individual ephemeral tributaries to perennial waters with suspected sediment issues. In the long term, the Proposed Action may have a positive impact to water quality, as there will be a reduced potential for large scale wildfire and an expected increase in plant diversity and ground cover. There are no impairments to water quality in the area that would be impacted by either alternative. Fuel treatments conducted using resource protection measures will not preclude this standard from being met under either alternative.

SIGNATURE OF PREPARER:

SIGNATURE OF ENVIRONMENTAL REVIEWER:

DATE SIGNED:

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

DOI-BLM-CO-N010-2013-0056-EA

Based on the analysis of potential environmental impacts contained in the EA and all other available information, I have determined that the proposal and the alternatives analyzed do not constitute a major Federal action that would adversely impact the quality of the human environment. This determination is based on the following factors:

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests or the locality. The physical and biological effects are limited to the Little Snake Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There are no park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas in the area of Proposed Action. As described in the EA, potential impacts to cultural resources were identified for the Proposed Action.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State or local natural resource related plans, policies or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.
8. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy. A cultural resources study is initiated prior to any action considered and undertaken under Section 106 of the National Historic Preservation Act. Any adverse effects to Historic Properties are mitigated in consultation with the Colorado Office of Archaeology and Historic Preservation (SHPO).
9. No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, treatments would be modified or mitigated not to have an adverse effect or new analysis would be conducted.
10. This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

Based upon a review of this Environmental Assessment 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 Little Snake Record of Decision and Resource Management Plan (2011). An environmental impact statement is not required.

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ Timothy Wilson, acting for,
Wendy Reynolds, Field Manager

DATE SIGNED: 03/13/14

Decision Record
DOI-BLM-CO-N010- 2013-0056-EA

DECISION AND RATIONALE:

I have determined that approving this fuels reduction project is in conformance with the approved land use plan. It is my decision to implement the project with the specified mitigation measures. The project will be monitored as stated in the Compliance Plan outlined below.

MITIGATION MEASURES: The mitigation measures for this project are described in the environmental impacts section of the environmental analysis for Cultural Resources, Native American Religious Concerns, Lands with Wilderness Characteristics, and Forest Management.

COMPLIANCE PLAN(S):

Compliance Schedule

Compliance will be conducted during the implementation phase to insure that all specifications and mitigative measures outlined in EA No. DOI-BLM-N010-2013-056 EA are followed. Individual projects authorized by a Determination of Nepa Adequacy will include the necessary specifications and mitigation specified in this environmental analysis. Contracts for fuels treatments will also include the necessary specification and mitigation to insure compliance.

Monitoring Plan

Following implementation, fuels treatments will be mapped and filed with the project file. Photo plots will be established and new photos taken each year for the following three years to document vegetation response to the treatment. This monitoring will help determine the treatment effectiveness and document the need for additional mitigative measures or specification changes for future projects. Wildfire activity within the planning area will be reviewed annually as part of the Northwest Colorado Fire Management Plan annual review.

Assignment of Responsibility

Responsibility for implementation of the compliance schedule and monitoring plan will be assigned to the Fire Management Specialist in the Little Snake Field Office. .

Administrative Review or Appeal Opportunities

This decision is effective upon the date the decision or approval by the authorized officer. Under regulations addressed in 43 CFR Subpart 3165, any party adversely affected has the right to appeal this decision. An informal review of the technical or procedural aspects of the decision may be requested of this office before initiating a formal review request. You have the right to request a State Director review of this decision. You must request a State Director review prior to filing an appeal to the Interior Board of Land Appeals (IBLA) (43CFR 3165.4).

If you elect to request a State Director Review, the request must be received by the BLM Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215, no later than 20

business days after the date the decision was received or considered to have been received. The request must include all supporting documentation unless a request is made for an extension of the filing of supporting documentation. For good cause, such extensions may be granted. You also have the right to appeal the decision issued by the State Director to the IBLA.

Contact Person

For additional information concerning this decision, contact Dale Beckerman, Fire Management Specialist, Little Snake Field Office, 455 Emerson Street, Craig, CO 81625, Phone (970) 826-5004.

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED: