



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Colorado River Valley Field Office
2300 River Frontage Road
Silt, Colorado 81652
www.co.blm.gov



ENVIRONMENTAL ASSESSMENT

1. Introduction

NUMBER: DOI-BLM-CO-040-2012-0093 EA

CASEFILE NUMBER:

PROJECT NAME: Mountain Springs WUI Project

LOCATION: Garfield County, Colorado

LEGAL DESCRIPTIONS: T6S, R 89W, Sections 18, 19 and 30

APPLICANT: BLM Colorado River Valley Field Office

PURPOSE AND NEED FOR ACTION

The purpose of the project is to conduct vegetation treatments along the public/private property boundary that will focus on reducing hazardous fuels adjacent to private lands. The need is to reduce the risk of catastrophic wildfires that enter private property from B.L.M. land and provide for firefighter and public safety.

BACKGROUND

The proposed project is located within an area identified as the wildland urban interface (WUI). The Colorado River Valley Field Office Fire Management Plan identifies the specific fire management zone as B-140-02 – I-70 Corridor West of Glenwood Springs-South Canyon, which emphasizes vegetation management to reduce hazardous fuel loading and the risk of wildland fire escaping public lands. The priority ranking for emphasis on fuels treatments is listed as High. The plan also places a priority ranking for community assistance and protection as “High.”

The Glenwood Springs CWPP describes the area as “Very High” for risk of wildland fire. The subdivision has one way in and one way out egress for landowners adding to problems in the event of a wildfire. Canopy spacing of vegetation and dead and down trees could contribute to a high intensity stand-replacement fire.

The Proposed Action will complement planned activities on adjacent private land. The Mountain Springs Ranch HOA has drafted plans and applied for a grant through the Colorado State Forest Service to implement approximately 20 acres of fuels treatment on adjacent private land.

Vegetation within the project area consists of a mix of conifer (subalpine fir, douglas-fir, and a few spruce and ponderosa pine), aspen, and mountain brush species. Fuel loading within the project area is considered moderate with pockets of high. The vegetation is considered decadent in age with a considerable amount of dead and down associated with the project area.

DECISION TO BE MADE

Approve or disapprove vegetation treatments that address high-risk wildfire areas in Garfield County.

SCOPING AND PUBLIC INVOLVEMENT AND ISSUES

This action was scoped internally with the NEPA Interdisciplinary Team on (date). Issues raised during the internal scoping are itemized in table 3-1 and analyzed in Section 3 Affected Environment and Environmental Consequences.

External scoping has been performed with the Colorado State Forest Service regarding the treatment of similar activities planned on private land as well as discussions with the Mountain Springs Ranch Subdivision.

2. Proposed Action and Alternatives

DESCRIPTION OF PROPOSED ACTION

This Bureau of Land Management (BLM) Colorado River Valley Field Office (CRVFO) project is a hazardous fuels treatment on BLM that will complement similar fuels reduction treatments planned on adjacent private property known as the Mountain Springs Ranch Subdivision. The BLM will work collaboratively with the private landowners of Mountain Springs Ranch and the Colorado State Forest Service to treat hazardous fuels on public lands that will complement treatments on adjoining private property.

The proposed action is to mow/grind/remove oakbrush and mixed mountain shrub and remove some of the smaller trees located within the meadow/park areas within the project area on public lands managed by the BLM. Trees within treatment area to be cut would be trees less than 5" diameter.

Goals of the proposed action are to break up the continuous oakbrush and mixed mountain shrub that currently exists in what were once open meadows and to remove smaller diameter trees that are encroaching into the meadows. Ladder fuels within the unit would be cut to a height of up to five feet above ground level. Patches of oakbrush and mixed mountain shrub would be left in rocky areas to maintain diversity of age class in the oak as well as a patchy mosaic. Mountain shrub species found in the understory would be thinned out over 60-90% of the units identified for mowing.

Treatment methods for this proposal include a mix of tools such as a fecon, hydro-axe or similar machinery, and chainsaws to cut and remove trees. A chipper could be used to chip or mulch, trees could be ground with a fecon head. Chips or mulch would be either hauled offsite or spread out within the unit. Debris from tree felling could also be scattered with no residual slash being greater than 3 feet above the ground. All trees felled and left in this manner will be limbed and bucked. Chainsaws would be used to cut standing and dead trees if necessary and to limb ladder fuels to a height of up to 5 feet above ground level.

A small hydro-axe, fecon or similar machinery would be used to thin/grind/masticate mountain shrub species in the understory.

The proposed project area covers 274 acres total of public lands where 117 acres have been identified for treatment. The project area is considered moderate to high in fuel loadings.

This proposed action includes maintenance of all units for a period of 10 years.

DESCRIPTION OF OTHER ACTION ALTERNATIVES ANALYZED IN DETAIL

DESCRIPTION OF NO ACTION ALTERNATIVE

There would be no vegetation management that would take place on BLM lands and the private property owners would continue to treat their own lands adjacent to BLM. Oakbrush and mixed mountain shrub communities would continue to expand and increase the severity and threat of wildfire to adjoining neighborhoods, sub-divisions, communities and infrastructure. Wildlife habitat would continue to degrade as the brush community's age and become unusable to wildlife. Species diversity would decline in both wildlife and vegetation as patch size of mixed mountain shrub and oakbrush and mixed mountain shrub increases and mature diversity would continue to decline. As these patches of mixed mountain shrub and oakbrush and mixed mountain shrub expand there would be elevated risk of wildfire with more continuous fuels.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

PLAN CONFORMANCE REVIEW

Name of plan: Glenwood Springs Resource management Plan.

Date Approved: Amended in November 1991-Oil and Gas Leasing and Development-Final Supplemental Environmental Impact Statement; amended Nov.1996-Colorado Standards and Guidelines; amended August 1997-Castle Peak Travel Management Plan; amended in March 1999- Oil and Gas Leasing & Development Final Supplemental Environmental Impact Statement; amended in November 1999-Red Hill Plan Amendment; and amended in September 2002-Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance 2002 and revised 09/2004.

Fire Management- Page 67. Objective-To reduce losses, complement resource management objectives, and sustain the productivity of the biological ecosystems through fire management.

RELATIONSHIP TO STATUTES, REGULATIONS, OTHER PLANS

Fire Management plan Glenwood Springs Field Office. The proposed action is within Fire Management Unit A-140-2New Castle Watershed, fire management objectives for this unit are found in appendix B page 5-7 and chapter 3 page 6.

Decision Language: The Priority ranking for Fuels Treatments, Wildland Fire suppression , and emphasis on E.S.R. is "HIGH" for the project area and Community Assistance/ Protection rates as a moderate.

Appendix B page 6 prescriptive vegetation treatments "To reduce hazardous fuels loading and the risks of wildland fire escaping public lands.

Appendix B page 6 to protect water quality and increase vegetation diversity by increasing perennial grasses and forbs(ground Cover) and decreasing canopy cover or area extent of old stands of oakbrush and mixed mountain shrub and pinyon-juniper woodlands.

STANDARDS FOR PUBLIC LAND HEALTH

In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. The five standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands

The project area falls within the South Canyon allotment which was assessed for land health as part of the Divide Creek Landscape (BLM 2009). At the time of the assessment, BLM staff concluded that the

South Canyon allotment was meeting all the Standards. Some beetle-killed trees were observed in the area and noxious weeds were scattered in disturbed areas, but no other resource concerns were noted.

The impact analysis herein addresses whether the proposed action or any alternatives being analyzed would result in impacts that would maintain, improve, or deteriorate land health conditions for each of the five standards. These analyses are located in the program-specific analysis in this document.

3. Affected Environment & Environmental Consequences

DIRECT AND INDIRECT EFFECTS, MITIGATION MEASURES

This section provides a description of the human and natural environmental resources that could be affected by the proposed action and alternatives. In addition, the section presents comparative analyses of the direct and indirect consequences on the affected environment stemming from the implementation of the various actions.

A variety of laws, regulations, and policy directives mandate the evaluation of the effects of a proposed action and alternative(s) on certain environmental elements. Not all programs, resources or uses are present in the area, or if they are present, may not be affected by the proposed action and alternatives (Table 3-1). Only those elements that are present and potentially affected are described and brought forth for detailed analysis.

<i>Table 3-1. Programs, Resources, and Uses (Including Supplemental Authorities)</i>	<i>Potentially Affected?</i>	
	Yes	No
Access and Transportation		X
Air Quality		X
Areas of Critical Environmental Concern		X
Cadastral Survey		
Cultural Resources	X	
Native American Religious Concerns	X	
Environmental Justice		X
Farmlands, Prime or Unique		X
Fire/Fuels Management	X	
Floodplains		X
Forests	X	
Geology and Minerals		X
Law Enforcement		X
Livestock Grazing Management		X
Noise		X
Paleontology		X
Plants: Invasive, Non-native Species (Noxious Weeds)	X	
Plants: Sensitive, Threatened, or Endangered		X
Plants: Vegetation	X	
Livestock Grazing Management		X
Realty Authorizations		X
Recreation	X	
Social and/or Economics		X
Soils	X	
Visual Resources	X	
Wastes, Hazardous or Solid		X

Water Quality, Surface and Ground		X
Water Rights		X
Wetlands and Riparian Zones		X
Wild and Scenic Rivers		X
Wilderness/WSAs/Wilderness Characteristics		X
Wildlife: Aquatic / Fisheries		X
Wildlife: Migratory Birds	X	
Wildlife: Sensitive, Threatened, and Endangered Species	X	
Wildlife: Terrestrial	X	

Cultural Resources

Affected Environment

Environmental Effects

A records search of the general project area, and a Class III inventory of the Area of Potential Effect (APE), as defined in the National Historic Preservation Act (NHPA), was completed by the CRVFO BLM archaeologist and crew (CRVFO CRIR# 1012-35). Three new cultural resources were identified and recorded during project inventory. All three resources were prehistoric isolated finds and are not eligible for the National Register of Historic Places (NRHP). Vegetation cover was thick and dense in areas and ground visibility was 0% at times. In the northern-most unit cultural resource inventory was only conducted around the perimeter of the unit due to steeper slopes and heavy vegetation. The other three units had complete cultural resource inventory. The project inventory and evaluation is in compliance with the NHPA, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources.

Proposed Action

Cultural resources located during project inventory were limited and will not be affected by project implementation. The project has a determination of *no historic properties affected* if mitigation measures are followed (see mitigation).

No Action

If no action occurs, potential adverse impacts to unknown cultural resources through project implementation, such as soil disturbance from machinery or soil erosion from vegetation removal, would not occur. On the other hand, cultural properties that could be protected by fuel reduction would remain unknown and when wildfires occurred these resources could not be evaluated during suppression planning. Cultural surveys would only be conducted post-wildfire if surface disturbing rehabilitation was proposed. Sites are highly visible after fires and cultural survey is benefited from the removal of vegetation but the sites are threatened by post-fire erosion and artifact collectors.

Mitigation

Additional areas or changes in the methodology to achieve the proposed effect may require additional archaeological inspection by a qualified archaeologist. These changes include but are not limited to prescribed burn, aerator treatment, or other ground disturbing equipment.

Cultural Resource Stipulations

If subsurface cultural values are uncovered during operations, all work in the vicinity of the resource will cease and the authorized officer with the BLM notified immediately. The operator shall take any additional measures requested by the BLM to protect discoveries until they can be adequately evaluated by the permitted archaeologist. Within 48 hours of the discovery, the State Historic Preservation Officer (SHPO) and consulting parties will be notified of the discovery and consultation will begin to determine an appropriate mitigation measure. BLM in cooperation with the operator will ensure that the discovery is protected from further disturbance until mitigation is completed. Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer.

Native American human remains

Pursuant to 43 CFR 10.4(g), the holder must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony on federal land. Further, pursuant to 43 CFR 10.4 (c) and (d), the holder must stop activities in the vicinity of the discovery that could adversely affect the discovery. The holder shall make a reasonable effort to protect the human remains, funerary items, sacred objects, or objects of cultural patrimony for a period of thirty days after written notice is provided to the authorized officer, or until the authorized officer has issued a written notice to proceed, whichever occurs first.

Native American Religious Concerns

Affected Environment

Environmental Effects

American Indian religious concerns are legislatively considered under several acts and Executive Orders, namely the American Indian Religious Freedom Act of 1978 (PL 95-341), the Native American Graves Environmental Assessment Protection and Repatriation Act of 1990 (PL 101-601), and Executive Order 13007 (1996; Indian Sacred Sites). In summary, these require, in concert with other provisions such as those found in the NHPA and ARPA, that the federal government carefully and proactively take into consideration traditional and religious Native American culture and life and ensure, to the degree possible, that access to sacred sites, the treatment of human remains, the possession of sacred items, the conduct of traditional religious practices, and the preservation of important cultural properties are considered and not unduly infringed upon. In some cases, these concerns are directly related to “historic properties” and “archaeological resources”. In some cases elements of the landscape without archaeological or other human material remains may be involved. Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation.

Proposed Action

During project inventory, an area of potential sensitivity to the tribes was located within the project area. This area has the potential to hold special significance for Native Americans for traditional or religious purposes and the project has the potential to alter or limit any access if there were traditional uses that are not known to the agency. Accordingly, Native American tribal consultation was conducted for the proposed undertaking with the Ute Indian Tribe of the Uintah and Ouray Reservation, Southern Ute Indian Tribe, and the Ute Mountain Ute Tribe on September 25, 2012. No concerns or comments were received regarding this project.

No Action

Under this alternative, vegetation would not be treated and no ground disturbance would occur. This would lessen the potential to expose sensitive Native American resources as well as lessen the potential for indirect effects from illicit collection or vandalism, and cumulative impacts.

Mitigation

Additional areas or changes in the methodology to achieve the proposed effect may require additional archaeological inspection by a qualified archaeologist and therefore might require additional tribal consultation.

Fire/Fuels Management

Affected Environment

The primary fuel type involved with this project will be Oakbrush and Mixed Mountain Shrub. Oakbrush and Mixed Mountain Shrub are invading into meadows and becoming the dominant features. These meadows were one time dominated by grasses, wildflowers and other fire resistant vegetation. Due to lack of disturbance Oakbrush and Mixed Mountain Shrub are beginning to become the dominant vegetation in the meadows that. Now if these meadows experience fire the meadow will no longer act as a safety zone or a heat sink and fire will readily carry through them. Along with the shrub component mixed conifer trees Spruce and Fir are encroaching on the meadows. The mechanical treatments will have an effect on the meadows in maintaining an earlier seral stage.

Wildland Urban Interface

Immediately adjacent to Project Area are 20-30 private parcels that range in size from individual lots to several acres. Within 1 mile of the Project Area there are numerous parcels of this size. More homes and structures will be built on available parcels over future decades.

Environmental Effects

Proposed Action

The proposed action would 1) reduce risk to WUI areas 2) provide for firefighter and public safety 3) re-establish a more natural vegetation mosaic.

Through mechanical treatments, the vegetation/fuels mosaic would become much more natural in patch size, age class, and vegetation diversity. Specifically the landscape would be less dominated by older woody species, particularly oakbrush and serviceberry as well as slow the encroachment of Spruce and Fir trees into the meadow.

Within areas considered the Wildland urban interface projects will be implemented to maintain a early seral stage that is more resistant to fire spread.

No Action Alternative

Under the no action alternative no fuels work would be conducted meadows would continue to be choked out by late seral vegetation until the meadows were covered in vegetation. Under this scenario the meadows would become less resistant to fire spread where fire would eventually carry through the meadows and pose a greater fire threat to the Wildland Urban Interface directly adjacent to the treatment area.

Mitigation

None needed.

Forests

Affected Environment

The areas proposed for treatment do not have very good Public access, so there will be a loss of Woodland products. The proposed action will only address non merchantable timber as well trees less than 5" D.B.H. these trees will be felled bucked and limbed with residual slash being left no higher than three feet tall. Trees greater than 5" will be limbed to a height of 5' the slash from the limbing and felling

activities will be dispersed, chipped, or treated by other means of mastication and spread out with in the unit.

Environmental Effects

Encroachment of woody stemmed species into meadows would continue unchecked and meadows would continue to degrade over time and no longer be available as an area that is resistant to fire spread. With treatment the meadow will be returned to an earlier seral stage as well as provide a mosaic, alter the age class of remaining vegetation to represent a more divers ecosystem.

Proposed Action

The proposed action would 1) reduce risk to WUI areas 2) provide for firefighter and public safety 3) re-establishment of a more natural vegetation mosaic.

No Action Alternative

Under the no action alternative, there would be no impacts to existing woodland resources. In the absence of disturbance causing events woody stemmed species will continue to establish and mature within the meadow areas. The young developing woodlands and woody stemmed species would continue to mature and infill meadows as meadow species continues to decline.

Mitigation

None needed.

Plants: Invasive Non-Native Species (Noxious Weeds)

Affected Environment

To date, some weed mapping has occurred on the Mountain Springs Subdivision Area, but it has not been systematic or comprehensive and has covered only a small extent of the total land area. Observations by various BLM specialists have provided most of the information on weed distribution. Weed mapping in the Mountain Springs Subdivision Area by the BLM is scheduled to be completed in 2013. Information on weeds gathered over the next year would be used to determine appropriate treatments in relation to the proposed action.

Biennial thistles including bull thistle (*Cirsium vulgare*), musk thistle (*Carduus nutans*), dalmation toadflax (*Linaria dalmatica*) and plumeless thistle (*Carduus acanthoides*), are scattered in the uplands and drainages. Canada thistle (*Breea arvensis*) occurs along almost every riparian reach, sometimes in dense populations, and both Canada thistle and houndstongue occur along most roads. While not common, Russian knapweed (*Acroptilon repens*) occurs in one population near the Subdivision. Additional weeds such as burdock (*Arctium minus*), cheatgrass (*Anisantha tectorum*), and common mullein (*Verbascum thapsus*) were noted as present in the treatment area with variable population sizes.

Environmental Effects

Proposed Action

It is likely that noxious and invasive weeds would initially increase as a result of the disturbance associated with the project. Surface-disturbing activities such as prescribed burning and mowing provide a niche for the establishment and expansion of invasive non-native species, particularly when these species are already present in the surrounding area. Additionally, fire vehicles and mowing equipment could introduce and spread noxious and invasive weed seeds. To help minimize the potential for spread of invasive non-native species during or after the treatments, the project leader would ensure that equipment involved in surface disturbing actions is clean of noxious weed seeds or propagative parts prior to entry onsite. In addition, pre-treatment of weeds in proposed prescribed burn units would occur in areas with high weed density to minimize weed expansion following fire. Post-burn weed monitoring and treatments would be conducted for three years following prescribed burning and mowing treatments. Any

Colorado-listed noxious weeds would be promptly treated and controlled according to the appropriate timing for each particular weed species. Staging of fire vehicles and mowing equipment would not occur in weed-infested areas. Prior to prescribed burning or mowing, the project leader would consult with the BLM Invasive Species Coordinator concerning appropriate staging areas.

No Action Alternative

Under this alternative, none of the ground disturbance associated with the proposed action would occur. Noxious and invasive plant species would be expected to continue at current levels.

Plants: Vegetation

Affected Environment

The project area is on a north-south strip of public land several miles long and one-half mile wide sandwiched between private land to the west and east. The public land lies near the top of a mountain with steep canyons to the west and gentler-sloping ridges and swales to the east.

The project area consists mostly of rolling knolls and swales at the top of the mountain and broad, gently sloping ridges. The dominant range site is mapped as Brushy Loam on the south-trending slopes with some Mixed Conifer range sites on the northern aspects and small inclusions of Mountain Loam in the swales.

Vegetation in the project area is dominated by Gambel oak (*Quercus gambellii*) 12-20 feet tall with a mix of shorter serviceberry (*Amelanchier* spp) and snowberry (*Symphoricarpos rotundifolius*). The understory in the Gambel oak is largely hairy golden aster (*Heterotheca villosa*), elk sedge (*Carex geyeri*), showy goldeneye (*Heliomeris multiflora*), and Kentucky bluegrass (*Poa pratensis*).

The meadows are either shrub-dominated or grass-dominated depending on the soils. The shrubby meadows consist mostly of shrubby cinquefoil (*Dasiphora fruticosa*) with mule's ear *Wyethia amplexicaulis*, sedges (*Carex* spp), Kentucky bluegrass and golden banner (*Thermopsis montana*). The grass-dominated meadows are primarily Letterman's needlegrass (*Achnatherum lettermanii*), Columbian needlegrass (*Achnatherum nelsonii*), timothy (*Phleum pratense*), and tarweed (*Madia* spp).

No noxious weeds were observed during a general survey of the treatment units. Tarweed and plantain were noted in disturbed areas, but no cheatgrass was found.

Due to the long interval since the last fire or other natural disturbance event, the age class structure of vegetation across this landscape is shifting toward the late or climax successional stages. Over time, the height and density of brush and trees has increased, thus increasing the potential for a large scale fire to impact the area. In addition, shrubs and trees are beginning to encroach at the margins of the meadows reducing the size of these natural fire breaks.



Figure 1. Gambel oak/mountain shrub community growing very dense and beginning to encroach on meadow

Historically, the area would have a variety of age classes in a mosaic pattern over the landscape. The fire regime in the mountain shrub fuel type is characterized by infrequent (50-120 year interval), high intensity crown fires that remove the above ground portion of the shrubs and create small to large size openings that are initially dominated by grasses and forbs but quickly succeed back to mountain shrub species that rapidly resprout following disturbance. Within the project area there has been little fire influence in the mountain shrub fuel type over the past 80-100 years, resulting in fairly dense, continuous stands of shrubs that limit understory grass and forb production.

Environmental Effects

Proposed Action

The proposed action would create openings within patches of dense, tall Gambel oak and mixed mountain shrub. The treatment would reduce the canopy of shrubs, providing openings that would become dominated by grasses and forbs in the short-term. Patches of Gambel oak and mixed mountain shrub would be left in rocky areas to maintain a diversity of age classes in the oak as well as a patchy mosaic across the project area. The treatment would also remove some shrubs and smaller aspens and conifers that are encroaching into areas that were formerly meadows thus stimulating the growth of herbaceous cover.

Fuels reduction through mechanical methods generally causes minimal surface disturbance. The mulch created by the equipment may provide additional soil nutrients in the short-term for vegetation establishment, but if mulch is more than a couple of inches thick, it may also prevent light from reaching the soil surface, inhibiting establishment of vegetation, particularly herbaceous vegetation.

No Action Alternative

Under the no action alternative, there would be no mechanical treatments within the project area. In the absence of fire or other disturbances, woody plants would continue to move toward the older age classes, growing denser and eventually becoming somewhat decadent and less productive. Encroachment of woody plants into meadows would continue. Herbaceous plant cover would decline over time with the increase in woody plant cover.

The increased fuel loading would also increase the risk of future wildfires becoming more intense and more widespread. Depending upon the environmental conditions present when such events occur, heavy fuel buildups could lead to hot, extensive burns which may cause increased mortality of vegetation and sterilize the soil. Intensive fires are more likely to create conditions favorable to noxious weed expansion.

Mitigation

If the mechanical treatment would result in residual piles of mulch more than 3-4 inches thick on the ground, the mulch would be hauled off-site.

Land Health Standards

Based on the Divide Creek Land Health Assessment, BLM staff concluded that plant communities were currently meeting Standard 3 (BLM 2009). The plant communities are gradually moving toward a homogeneous old-age class which is approaching the edge of the natural range of variability. Implementation of the proposed action is expected to maintain or improve the health of plant communities.

Recreation

Affected Environment: This project encompasses the Glenwood Springs Extensive Recreation Management Area (ERMA). The Glenwood Springs ERMA refers to areas where recreation is not the principal management objective and is managed to provide visitor information, minimal sanitation facilities, and access according to the 1988 Glenwood Springs Resource Area Record of Decision and Resource Management Plan.

Environmental Effects

Proposed Action: The proposed projects may temporarily create negative visitor experiences in the direct project area while the project was being completed. However, these impacts would be temporary and short-term. Preventing wildfires in the area would benefit recreation experiences in the long-term as visual aesthetics would be protected and recreational activities could continue to occur.

No Action Alternative: The No Action alternative may lead to wildfires in the future, which could have negative impacts to recreation experiences through visual aesthetics and possible restriction of activities. Temporary, short term impacts would be avoided, but the long-term benefit would not occur.

Mitigation: Post public notices to inform the public of intended project work. Mitigation to reduce conflicts with public land users (big game hunters) includes: Mechanical vegetation treatments should avoid the annual Colorado rifle big game hunting seasons if realistic if possible.

Soils

Affected Environment

A review of the soil survey by the NRCS for the *Rifle Area, Colorado, Parts of Garfield and Mesa Counties* indicate four soil map units occur within the proposed allotments (NRCS 1985). The NRCS soil map unit descriptions (NRCS 2011) are provided below:

- 17 Cochetopa loam – This deep, well drained soil is found on mountainsides and alluvial fans at elevations ranging from 7,000 to 9,500 feet and on slopes of 9 to 50 percent. Parent material for this soil is basaltic alluvium. Surface runoff for this soil is slow and erosion hazard is severe. Primary uses for this soil include grazing and wildlife habitat.

- 18 Cochetopa-Jerry complex – This moderately steep complex is found on mountainsides at elevations ranging from 7,000 to 9,500 feet and on slopes of 12 to 25 percent. This complex formed in alluvium derived from sandstone, shale, and basalt. Approximately 50 percent of this complex is Cochetopa soil and approximately 40 percent Jerry soil. Both of these soils are deep, well drained and have slow surface runoff with moderate erosion hazard. Primary uses for this complex include grazing and wildlife habitat.
- 19 Cochetopa-Jerry complex – These moderately steep soils are found on mountainsides at elevations ranging from 7,000 to 9,500 feet and on slopes of 25 to 50 percent. They are derived from sandstone, shale, and basalt. Approximately 50 percent of this complex is Cochetopa soil and approximately 40 percent Jerry soil. Both of these soils are deep, well drained and have slow surface runoff with moderate erosion hazard. Primary uses for this complex include grazing and wildlife habitat.
- 42 Lamphier loam – This deep, well drained soil is found on fans and mountainsides at elevations ranging from 7,500 to 10,000 feet and on slopes of 15 to 50 percent. This soil is derived from sandstone and shale rocks. Surface runoff for this soil is slow and the erosion hazard is classified as slight. Primary uses for this soil include grazing, wildlife habitat, and recreation.

Based on a GIS analysis, the northern 10acre treatment parcel is considered to have fragile soils, which incorporates:

- Soils rated as highly or severely erodible by wind or water, as described in soil survey reports.
- Soils on slopes >35%, particularly if they have one of the following soil characteristics: (a) a surface texture that is sand, loamy sand, very fine sandy loam, fine sandy loam, silty clay, or clay; (b) a depth to bedrock that is <20 inches; c) an erosion hazard rating of high or very high; and (d) a K (soil erodibility potential) factor >0.32.

However, based on field reconnaissance, the project area is heavily vegetated with gently topography and stable soils. Soil health was evaluated in 2009 during the Divide Creek Land Health Assessment. BLM staff concluded that soils were meeting land health standards, with some departures from expected conditions (BLM 2002). The Paradise allotment, which the proposed action is within, had several slight to moderate departures from expected conditions due to observations of water-flow patterns and limited soil surface resistance to erosion.

Environmental Effects

Proposed Action

Fuels reduction through mechanical methods generally has less potential for reducing soil productivity and increasing erosion and sediment. Use of the roller chopper, hydro-ax, and fecon machinery usually creates short-term increase in surface erosion but sediment production is more than offset by the mulch (litter) and the increase in grass/forb vegetation. Litter on the surface reduces soil detachment from overland flow and raindrop impact, reduces bare ground, and protects the soil surface. These methods have the advantage of rapidly incorporating more litter into the soil.

No Action Alternative

Under the no action alternative, there would be no impacts to soils.

Mitigation

In treatment areas on fragile soils or high intensity treatment areas, monitor for soil productivity, erosion and weeds. If deemed necessary, soil amendments (i.e. fertilizers, bacterial or fungal) and/or seeding may be required to enhance soil health and maintain native vegetation.

Land Health Standard 1 for Soils

Based on the Divide Creek Land Health Assessment, BLM staff concluded that soils are meeting Standard 1 (BLM 2009). Implementation of the proposed action is not anticipated to degrade soil health from current conditions.

Visual Resources

Affected Environment

Lands administered by BLM CRVFO are classified as Visual Resource Management (VRM) Class I, II, III, and IV. The area described in this project is classified as VRM Class II. The objective for VRM Class II as defined in the BLM's Manual H-8410-1 Visual Resource Inventory (BLM 1986), is described below.

VRM Class II

The objective 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.

The Roaring Fork Valley vicinity contains variety of landscape character types and varying degrees of alteration from human activities. It consists mainly of a broad stretch of valley floor, bordered by foothills, and steep mountain slopes. Topography varies from drainage valley bottoms, to steep foothills rising to steeper mountain peaks or cliffs in the background. Numerous ephemeral drainages and gulches dissect the landforms adding to the variety of the topographic texture. The area is characteristic of agricultural land, scattered rural residences, small population centers, transportation corridors, and utilities. Vegetation consists of pastoral land, sagebrush flats, pinyon-juniper woodlands, and mixed oak/mountain shrub communities.

Environmental Consequences

Proposed Action

Fuels treatments can alter the appearance of the vegetation and may contrast with adjacent vegetation by creating openings and obvious changes in color and texture due to the change in plant height. Treatments would be designed and areas flagged prior to treatment and visually monitored (in highly visible locations from major transportation corridors, population centers, and other scenic viewsheds within the Proposed Action boundary) during treatment to avoid the creation or enhancement of linear features within the landscape. Treatments would be designed to repeat natural mosaic openings found within the landscape, particularly when the treatment occurs within sagebrush and mixed mountain shrubland. Feathering or undulating edges would be incorporated into treatments where practicable to break up any distinct lines created in the landscape. Any new access roads or staging areas would be reclaimed once the project is complete to prevent further surface disturbance and visual contrast.

Over the long term, fuels treatments would likely improve visual resources and with the inclusion of design and mitigation measures no new contrast or long term impacts would be introduced.

No Action Alternative (Current Management)

Under the No Action Alternative: The existing landscape character would be maintained and VRM objectives would be met. However, if a large wildfire occurred within the area, while it would be a

natural process, the landscape could experience a high degree of modification and contrasts to the existing landscape.

Water Quality

Affected Environment

The proposed treatment area lies within the Paradise Creek 6th level watershed, tributary to the Colorado River. The parcels identified for fuels reduction treatment are in the headwaters of the watershed and upland from any defined stream channels. Much of the area is densely vegetated with relatively gentle topography. It is not anticipated that treatments would affect water quality.

Environmental Effects

Proposed Action

Fuels reduction through mechanical treatments will not affect water quality of Paradise Creek or the Colorado River. Treatments are all in the uplands and are a small portion of the total watershed area. Mulching of vegetation, may actually slow water infiltration and maintain soil moisture in places.

No Action Alternative

Under the no action alternative, there would be no impacts to water quality.

Land Health Standards for Water Resources

Based on the Divide Creek Land Health Assessment, BLM staff concluded that water quality is meeting Standard 5 (BLM 2009). Implementation of the proposed action is not anticipated to degrade water quality from current conditions.

Wildlife: Aquatic / Fisheries

Affected Environment

Aquatic wildlife includes animals, either vertebrate or invertebrate, which live in water for most or all of their life. Aquatic habitats include: lakes, ponds, springs, seeps, rivers and streams. Aquatic wildlife species are vulnerable to land use activities due to the fragility of their aquatic environments.

Amphibians possibly present in wetlands would include various species of frogs (e.g., western chorus frog (*Pseudacris triseriata*)), and toads (e.g., Great Basin spadefoot (*Spea intermontana*)), which are adapted to seasonal flow regimes in arid environments. Aquatic macroinvertebrates most likely to occur include water striders, water boatmen, predaceous diving beetles, and the aquatic larvae of caddis flies and true flies.

The Proposed Action is located along a ridgeline that feeds the Roaring Fork watershed and the Colorado River watershed (BLM 2000). There are no perennial or fish bearing streams located within the project area. A stock pond/reservoir (see Range Management Section) is located within the project area boundary, but is not in close proximity to any of the fuel treatment locations.

Environmental Effects

Proposed Action

The Proposed Action will not occur within 100 feet of any perennial stream or other persistent surface water, thereby minimizing impacts to aquatic wildlife species. There would be no surface disturbance to the vegetation on the slopes that descend off the ridgeline, reducing any potential for sediment from erosion reaching any perennial or fish bearing streams (South Canyon Creek and Three Mile Creek), further below. Mulching of vegetation would slow water infiltration (if spread out within the treatment unit) and prevent any further run-off from occurring.

No Action Alternative

Under the no action alternative, no fuel treatments would be conducted. However, impacts of a large, severe wildfire could conceivably affect a larger habitat area and probably result in substantial increases in sediment loading.

Mitigation

None needed.

Land Health Standards

A formal Land Health Assessment was completed for the area in 2009 (BLM 2009). The Proposed Action should have little bearing on the watersheds ability to continue to meet Standard 3 for aquatic wildlife.

Wildlife: Migratory Birds

Affected Environment

The CRVFO planning area provides both foraging and nesting habitat for a variety of migratory birds that summer, winter, or migrate through the area. The Proposed Action is located along the ridgeline of the steeper mountainous terrain (elevation approximately 8,100 - 8,500 feet) bound by the South Canyon Creek Drainage to the west, the Colorado River to the north, the Roaring Fork River Valley to the east, and the Three Mile Creek Drainage to the southeast. The project area boundary is located on a narrow strip of BLM land that runs north to south and is landlocked by private land to the east and the west. Vegetation in the project area is comprised of a mixed oak brush/mountain shrub community intermixed with shrub/grass dominated meadows, mixed conifer, and aspen. Given the vegetation at the project site, the area provides cover, forage, and nesting habitat for a variety of migratory species.

Raptors and neotropical migrants (both game and nongame) are afforded protection under the Migratory Bird Treaty Act. BLM Instruction Memorandum No. 2008-050 provides guidance toward meeting the Bureau of Land Management's (BLM) responsibilities under the Migratory Bird Treaty Act (MBTA) and the Executive Order (EO) 13186. The guidance directs Field Offices to promote the maintenance and improvement of habitat quantity and quality. To avoid, reduce or mitigate adverse impacts on the habitats of migratory bird species of conservation concern to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities.

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the U.S. Fish and Wildlife Service (USFWS) to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973." The "*BIRDS OF CONSERVATION CONCERN 2008*" (U.S. Fish and Wildlife Service 2008) is the most recent effort to carry out this mandate.

The MBTA prohibits the "take" of a protected species. Under the Act, the term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The USFWS interprets "harm" and "kill" to include loss of eggs or nestlings due to abandonment or reduced attentiveness by one or both adults as a result of disturbance by human activity, as well as physical destruction of an occupied nest.

The conservation concerns are the result of population declines - naturally or human-caused, small ranges or population sizes, threats to habitat, or other factors. Although there are general patterns that can be inferred, there is no single reason why any species is on the list. Habitat loss is believed to be the major reason for the declines of many species. When considering potential impacts to migratory birds the impact on habitat, including: 1) the degree of fragmentation/connectivity expected from the proposed project relative to before the proposed project; and 2) the fragmentation/connectivity within and between habitat types (e.g., within nesting habitat or between nesting and feeding habitats. Continued private land

development, surface disturbing actions in key habitats (e.g. riparian areas) and the proliferation of roads, pipelines, powerlines and trails are local factors that reduce habitat quality and quantity for many species.

The Colorado River Valley Field Office (CRVFO) is within the Southern Rockies/Colorado Plateau Bird Conservation Region (BCR). The USFWS 2008 list of Birds of Conservation concern includes the following:

USFWS 2008 List of Birds of Conservation Concern within the CRVFO.

Species	Habitat Description	Potential Occurrence ^{1, 2,}
Gunnison Sage-Grouse (<i>Centrocercus minimus</i>)	Sagebrush communities for hiding and thermal cover, food, and nesting; open areas with sagebrush stands for leks; sagebrush-grass-forb mix for nesting; wet meadows for rearing chicks. Not found within the CRVFO.	Not Present
American Bittern (<i>Botaurus lentiginosus</i>)	Marshes and wetlands; ground nester. Summer resident.	Not Present
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Nests in forested rivers and lakes; winters in upland areas, often with rivers or lakes nearby. Generally winter resident, occasional breeding.	Unlikely
Ferruginous Hawk (<i>Buteo regalis</i>)	Open, rolling and/or rugged terrain in grasslands and shrubsteppe communities; also grasslands and cultivated fields; nests on cliffs and rocky outcrops. Fall/ winter resident, non-breeding.	Not Present
Golden Eagle (<i>Aquila chrysaetos</i>)	Open country, grasslands, woodlands, and barren areas in hilly or mountainous terrain; nests on rocky outcrops or large trees. Year-round resident, breeding.	Possible
Peregrine Falcon (<i>Falco peregrines</i>)	Open country near cliff habitat, often near water such as rivers, lakes, and marshes; nests on ledges or holes on cliff faces and crags. Spring/summer resident, breeding.	Not Present
Prairie Falcon (<i>Falco mexicanus</i>)	Open country in mountains, steppe, or prairie; winters in cultivated fields; nests in holes or on ledges on rocky cliffs or embankments. Spring/summer resident, breeding.	Not Present
Snowy Plover (<i>Charadrius alexandrinus nivosus/tenuirostris</i>)	Sparsely vegetated sand flats associated with pickleweed, greasewood, and saltgrass. Spring migrant, non-breeding. Spring migrant, non-breeding.	Not Present
Mountain Plover (<i>Charadrius montanus</i>)	High plain, cultivated fields, desert scrublands, and sagebrush habitats, often in association with heavy grazing, sometimes in association with prairie dog colonies; short vegetation.	Not Present
Long-billed Curlew (<i>Numenius americanus</i>)	Lakes and wetlands and adjacent grassland and shrub communities. Spring/ fall migrant, non-breeding.	Not Present
Yellow-billed Cuckoo (<i>Coccyzus</i>)	Riparian, deciduous woodlands with dense undergrowth; nests in tall cottonwood ,mature willow	Not Present

Species	Habitat Description	Potential Occurrence ^{1, 2,}
<i>americanus</i>)	riparian, moist thickets, orchards, abandoned pastures. Summer resident, breeding.	
Flammulated Owl (<i>Otus flammeolus</i>)	Old-growth or mature ponderosa pine and ponderosa-Douglas-fir forests, often mixed with mature aspen. In some areas, pure aspen or old-growth pinyon-juniper woodlands. Common summer resident in western and southern Colorado.	Not Present
Burrowing Owl (<i>Athene cunicularia</i>)	Open grasslands and low shrublands often in association with prairie dog colonies; nests in abandoned burrows created by mammals; short	Not Present
Lewis's Woodpecker (<i>Melanerpes lewis</i>)	Open woodland, often logged or burned, including oak, coniferous forest (often ponderosa), riparian woodland, and orchards, less often in pinyon-juniper.	Unlikely
Willow Flycatcher (<i>Empidonax traillii</i>)	Riparian and moist, shrubby areas; winters in shrubby openings with short vegetation. Summer resident, breeding.	Not Present
Gray Vireo (<i>Vireo vicinior</i>)	Uncommon summer resident (primarily Mesa County). In habitats open pinyon-juniper woodlands.	Not Present
Pinyon Jay (<i>Gymnorhinus cyanocephalus</i>)	Common to abundant resident of pinyon-juniper woodlands. Year-round resident that travels broadly in flocks.	Unlikely
Juniper Titmouse (<i>Baeolophus ridgwayi</i>)	Pinyon-juniper woodlands, especially juniper; nests in tree cavities. Year-round resident, breeding.	Unlikely
Veery (<i>Catharus fuscescens</i>)	Dense riparian thickets and hillside brush near streams. Uncommon spring/fall migrant in Eastern Colorado.	Not Present
Bendire's Thrasher (<i>Toxostoma bendirei</i>)	Desert, especially areas of tall vegetation, cholla cactus, creosote bush and yucca, and in juniper woodland. Possible summer resident.	Not Present
Grace's Warbler (<i>Dendroica graciae</i>)	Breeds in ponderosa pine forests. Uncommon summer resident in southwest Colorado.	Not Present
Brewer's Sparrow (<i>Spizella breweri</i>)	Sagebrush shrublands or mountain mahogany or rabbitbrush shrublands. Common summer resident in Western Colorado.	Possible
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	Open grasslands and cultivated fields. Spring migrant, non-breeding.	Not Present
Chestnut-collared Longspur (<i>Calcarius ornatus</i>)	Open grasslands and cultivated fields. Spring migrant, non-breeding.	Not Present
Black Rosy-Finch (<i>Leucosticte</i>	Open country including mountain meadows, high deserts, valleys, and plains; breeds/ nests in alpine	Not Present

Species	Habitat Description	Potential Occurrence ^{1, 2,}
<i>atrata</i>)	areas near rock piles and cliffs. Winter resident, non-breeding.	
Brown-capped Rosy-Finch (<i>Leucosticte australis</i>)	Alpine meadows, cliffs, and talus and high-elevation parks and valleys. Summer resident, breeding.	Not Present
Cassin's Finch (<i>Carpodacus cassinii</i>).	Open montane coniferous forests; breeds/ nests in coniferous forests. Year-round resident, breeding.	Possible
¹ Kingery, H. E, editor. 1998. Colorado Breeding Bird Atlas. Colorado Bird Atlas Partnership, Denver, Colorado. ² Andrews, R. and R. Righter. 1992. Colorado Birds: A Reference to Their Distribution and Habitat. Denver Museum of Natural History. Denver, Colorado. ³ Cornell Lab of Ornithology: All About Birds Bird Guide and eBird Range Map. 2011.		

Many species of raptors (red-tailed hawks, Cooper's hawks, kestrels and owls) not on the Fish & Wildlife Service's Birds of Conservation Concern list in addition to listed species would irregularly pass through the area or forage within the area if prey was sighted. Raptor Surveys have not been conducted in the area.

Environmental Effects

Limited specific bird count or species data exists for the area. The documented effects of fuels treatments on avian communities are poorly understood. Generally responses of individual bird species to land management activities like fuels reduction are habitat and species specific. Most species are dependent on habitats beyond BLM lands for a substantial portion of their lives, and land use activities can at most only contribute to their conservation.

Effects on Habitat. The Proposed Action would somewhat mimic a natural fire disturbance by creating openings within patches of dense mixed mountain shrub vegetation and by reducing the canopy cover provided by smaller shrubs and trees. The overall short-term impact of the Proposed Action would be an increase in habitat for avian species that prefer a mosaic of habitat types, earlier seral stages, or an open tree/shrub canopy that increases in grasses, forbs, and other plants.

Migratory birds are also threatened by long-term changes in habitat due to a catastrophic wildfire. The proposed action would contribute locally to decreasing the threat of catastrophic wildland fire that changes large blocks of habitat indiscriminately.

Mortality. No intentional take of native bird species is anticipated under the Proposed Action. Adult and fledged migratory birds are generally able to escape fuels reduction activities but there is a possibility that young in the nest may perish depending on the timing of the action. In addition the accidental trampling of ground nests and eggs could occur. However, species with scrape nests have precocial young, which quickly leave the nest upon hatching. Potential direct mortality of eggs, nestlings, and adults would be minimized by conducting the prescribed burns after July 1, when the young of most species have fledged and adults are no longer tied to specific territories.

Disturbance and Displacement. The potential effects on migratory birds at the local scale includes disturbance of individuals from treatment activities. Immediately after any treatment, there could be a loss of habitat for wildlife species. There would be direct and indirect impacts because of the loss of vegetative cover. The action would in the short-term physically disrupt daily activities and may cause nest abandonment by the adults who are intolerant to disturbance. It is likely that the Proposed Action would result in the temporary displacement of bird species due to noise associated with treatments and

human presence. This impact would be minimal because the project size, duration, and the availability of similar habitats nearby.

Weed Treatments. Herbicides affect wildlife directly when animals are exposed to chemicals, or indirectly when wildlife habitat is altered. Herbicides used by the CRVFO have a low toxicity to terrestrial wildlife. Therefore, use of approved herbicides would primarily affect wildlife through habitat modification. Its use in forested rangeland and other wildlife habitat areas could benefit wildlife by controlling invasive plant species and promoting the establishment and growth of native plant species that provide more suitable wildlife habitat and forage (BLM 2007).

Summary. Large fires can modify habitat and affect relationships between migratory birds and their environment. The cumulative effect of fuels treatments would help move BLM lands towards a condition where wildfires create early successional habitats but at smaller patch scales and in a more heterogeneous pattern, which should protect and improve wildlife habitat across the region. The effects of the Proposed Action (with the proposed mitigation below) on migratory bird species is expected to be mixed, minimal and isolated, but not enough to influence populations of migratory birds long-term on a landscape level.

Mitigation

1. Do not cut standing dead or live trees with (a) natural cavities or holes, and (b) evidence of nesting (e.g. cup nests, cavity nests, platform nests, pendant nest, sphere nest) or roosting birds.
2. Avoid trampling and cutting trees near active scrape/ground nests (i.e. a shallow depression in soil or vegetation lined with bits of vegetation, small stones or feathers).
3. Avoid fuel treatments until after July 1st, when the young of most species have fledged and adults are no longer tied to specific territories.

Proposed Action

No Action Alternative

The no action alternative would support migratory birds that favor older seral stage habitats. No migratory birds would be displaced, disturbed or perish due to fuels treatments.

It is difficult to quantifiable the impacts of a potential catastrophic wildfire before it occurs. Some individuals would likely perish in large unplanned wildland fires. Migratory birds would be threatened by long-term changes in habitat. Large fires destroy habitat locally and increase habitat fragmentation across the region. There would be direct and indirect impacts on migratory birds because of the loss of vegetative cover within the burned area. However it must be recognized that some migratory bird species utilize early successional habitats that develop following wildfires.

From a wildlife management standpoint the desired long-term condition where wildfires create early successional habitats but at smaller patch scales and in a more heterogeneous pattern, which should protect and improve wildlife habitat across the region habitat may not occur naturally.

Mitigation

None needed.

Wildlife: Sensitive, Threatened, and Endangered

Affected Environment

The table below summarizes the latest: 1) species list from the U. S. Fish and Wildlife Service for Federally listed, proposed, or candidate aquatic wildlife species (USFWS 2010) and 2) Colorado BLM State Director's Sensitive Species List for aquatic wildlife species; that may occur within the CRVFO and be impacted by the Proposed Action (BLM 2009).

Special Status Aquatic Wildlife Species.

Federally Listed, Proposed or Candidate Aquatic Wildlife Species		
Species	Habitat/Range	Occurrence/ Potentially Impacted
Greenback cutthroat trout (<i>Oncorhynchus clarki stomias</i>)	Federally listed as threatened. The greenback is the subspecies of cutthroat trout native to the Platte River drainage on the Eastern Slope of Colorado, while the Colorado River cutthroat trout is the subspecies native to the Western Slope of Colorado. Historically found in cold, clear, gravely headwater streams and mountain lakes of the Arkansas and South Platte River systems in Colorado and part of Wyoming. The greenback cutthroat trout was not identified on the USFWS list for Garfield County; however, recent surveys have identified a population in Cache Creek.	Absent /No
Bonytail (<i>Gila elegans</i>)	Federally listed as endangered. This large chub is a member of the minnow family found in large, fast-flowing waterways of the Colorado River system. Their current distribution and habitat status are largely unknown due to its rapid decline prior to research into its natural history. The bonytail is extremely rare in Colorado and no self-sustaining population exists. Only one has been captured in the state since 1980.	Absent /No
Colorado pikeminnow (formerly Colorado squawfish) (<i>Ptychocheilus lucius</i>)	Federally listed as endangered. Primarily exists in the Green River below the confluence with the Yampa River, the lower Duchesne River in Utah, the Yampa River below Craig, Colo., the White River from Taylor Draw Dam near Rangely downstream to the confluence with the Green River, the Gunnison River in Colorado, and the Colorado River from Palisade, Colo., downstream to Lake Powell. Colorado pikeminnow populations in the upper Colorado River basin are now relatively stable or growing. Designated Critical Habitat includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle.	Absent /No
Humpback chub (<i>Gila cypha</i>)	Federally listed as endangered. Found in deep, clear to turbid waters of large rivers and reservoirs over mud, sand or gravel. The nearest known population of humpback chub is in the Colorado River at Black Rocks west of Grand Junction..	Absent /No
Razorback sucker (<i>Xyrauchen texanus</i>)	Federally listed as endangered. The razorback sucker was once widespread throughout most of the Colorado River Basin from Wyoming to Mexico. In the upper Colorado River Basin, they are now found only in the upper Green River in Utah, the lower Yampa River in Colorado and occasionally in the Colorado River near Grand Junction. Because so few of these fish remain in the wild, biologists have been actively raising them in hatcheries in Utah and Colorado and stocking them in the Colorado River. Designated Critical Habitat for the razorback sucker includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle.	Absent /No

Colorado BLM Sensitive Aquatic Species		
Species	Habitat/Range	Occurrence / Potentially Impacted
Northern leopard frog (<i>Rana pipiens</i>)	Generally found between 3,500 to 11,000 feet, in wet meadows and in shallow lentic habitats. They require year-round water sources, deep enough to provide ice free refugia in the winter. Within the CRVFO, this species has been documented in locales where quality riparian vegetation exists in conjunction with perennial water sources. Larger populations of this species have been documented northwest of King Mountain within the small drainage that feeds King Mountain (Ligon) Reservoir, June Creek and East Divide Creek south of Silt, Colorado, and in portions of the Rifle Creek watershed north of Rifle, Colorado.	Absent/No
Great Basin spadefoot toad	This toad is known to occupy a wide variety of habitat including lowlands, foothills, and shortgrass plain. This species generally inhabits and breeds in seasonal pools and ponds in pinyon-juniper woodland, sagebrush, and semi-desert shrubland habitats, mostly below 6,000 feet in elevation.	Absent /No
Bluehead sucker (<i>Catostomus discobolus</i>), Flannelmouth sucker (<i>Catostomus latipinnis</i>), and Roundtail chub (<i>Gila robusta</i>)	Primarily found in larger rivers but may also be found in smaller tributaries with good connectivity to larger river systems. These fish are endemic to the Colorado River basin and reside within the main stem Colorado River and its major tributary streams. Given their biology, feeding habits, habitat needs, and niche in the ecosystem, these species can persist in the face of actions that increase sediments to streams and rivers containing these species.	Absent/No
Mountain sucker (<i>Catostomus platyrhynchus</i>)	The mountain sucker is found primarily in small, low- mid elevation streams in northwestern Colorado with gravel, sand or mud bottoms. They inhabit undercut banks, eddies, small pools, and areas of moderate current. Young fish prefer backwaters and eddies. A population of mature adults is found in Steamboat Lake. Within the CRVFO, only known occurrence is in Piceance Creek.	Absent /No
Colorado River cutthroat trout (CRCT) (<i>Oncorhynchus clarkii pleuriticus</i>)	CRCT are one of three subspecies of native trout found in Colorado. CRCT prefer clear, cool headwaters streams with coarse substrates, well-distributed pools, stable streambanks, and abundant stream cover. CRCT have been documented as occurring in Parachute Creek, Abrams Creek, Battlement Creek, Mitchell Creek, North Thompson Creek and Red Dirt Creek. It is likely that all of the perennial waters capable of harboring fish historically contained this native trout species. CRCT have hybridized with non-native salmonids in many areas, reducing the genetic integrity of this subspecies. Rainbow trout hybridize with cutthroat trout. Brook and brown trout tend to replace them in streams and rivers.	Absent /No

The table below summarizes the latest: 1) species list from the U. S. Fish and Wildlife Service for Federally listed, proposed, or candidate terrestrial wildlife species (USFWS 2010) and 2) Colorado BLM State Director's Sensitive Species List for terrestrial species; that may occur within the CRVFO and be impacted by the Proposed Action (BLM 2009).

Special Status Terrestrial Wildlife Species.

Federally Listed, Proposed or Candidate Terrestrial Wildlife Species		
Species	Habitat/Range	Occurrence/ Potentially Impacted
Black-footed Ferret (<i>Mustela nigripes</i>)	Federally listed as endangered. Black-footed ferrets have ranged statewide but never have been abundant in Colorado. Their habitat included the eastern plains, the mountain parks and the western valleys – grasslands or shrub lands that supported some species of prairie dog, the ferret’s primary prey. State and federal biologists have established two major black-footed ferret colonies: one at Coyote Basin (Colorado-Utah border west of Rangely) and another at the BLM’s Wolf Creek Management Area southeast of Dinosaur National Monument .	Absent /No
Canada lynx (<i>Lynx Canadensis</i>)	Federally listed as threatened. Canada lynx occupy high-latitude or high-elevation coniferous forests characterized by cold, snowy winters and an adequate prey base. In the western US, lynx are associated with mesic forests of lodgepole pine, subalpine fir, Engelmann spruce, and quaking aspen in the upper montane and subalpine zones, generally between 8,000 and 12,000 feet in elevation. Although snowshoe hares (<i>Lepus americanus</i>) are the preferred prey, lynx in also feed on mountain cottontails (<i>Sylvilagus nuttallii</i>), pine squirrels (<i>Tamiasciurus hudsonicus</i>), and blue grouse (<i>Dendragapus obscurus</i>). The Forest Service has mapped suitable denning, winter, and other habitat for lynx within the White River and Routt National Forests. The mapped suitable habitat comprises areas known as Lynx Analysis Units (LAUs) that are the approximate the size of a female’s home range. Several LAUs include small parcels of BLM lands.	Absent/No
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	Federally listed as threatened. This owl nests, roosts, and hunts in mature coniferous forests in canyons and foothills. The key habitat components are old-growth forests with uneven-age stands, high canopy closure, high tree density, fallen logs and snags. The only extant populations in Colorado are in the Pikes Peak and Wet Mountain areas of south-central Colorado and the Mesa Verde area of southwestern Colorado.	Absent /No

Federally Listed, Proposed or Candidate Terrestrial Wildlife Species		
Greater Sage-grouse (<i>Centrocercus urophasianus</i>)	Candidate for Federal listing. Sage-grouse, as the name implies, are found only in areas where sagebrush is abundant, providing both food and cover. Sage-grouse prefer relatively open sagebrush flats or rolling sagebrush hills. In winter, sagebrush accounts for 100% of the diet for these birds. In addition, it provides important escape cover and protection from the elements. In late winter, males begin to concentrate on traditional strutting grounds or leks. Females arrive at the leks 1-2 weeks later. Leks can occur on a variety of land types or formations (windswept ridges, knolls, areas of flat sagebrush, flat bare openings in the sagebrush. Breeding occurs on the leks and in the adjacent sagebrush, typically from March through May. Females and their chicks remain largely dependent on forbs and insects for food well into early fall. Within the CRVFO sage-grouse are still present in the northeast part of the Field Office in the Northern Eagle/Southern Routt population, while small (<500 birds), probably has, or had, a relationship with the larger population in Moffat, Rio Blanco and western Routt counties, and probably with the Middle Park population to the east.	Absent /No
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Candidate for Federal listing. This secretive species occurs in mature riparian forests of cottonwoods and other large deciduous trees with a well-developed understory of tall riparian shrubs. Western cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods (<i>Populus fremontii</i>) and willows (<i>Salix</i> sp.). A few sightings of yellow-billed cuckoo have occurred in western Colorado along the Colorado River near Grand Junction.	Absent/No

Colorado BLM Sensitive Terrestrial Wildlife Species		
Species	Habitat/Range	Occurrence/ Potentially Impacted
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) and Fringed myotis (<i>Myotis thysanodes</i>)	Occur as scattered populations at moderate elevations on the western slope of Colorado. Habitat associations are not well defined. Both bats will forage over water and along the edge of vegetation for aerial insects. Commonly roost in caves, rock crevices, mines, or buildings, but also may roost in tree cavities. Both species are widely distributed and usually occur in small groups. Townsend's big-eared bat is not very abundant anywhere in its range. This is attributed to patchy distribution and limited availability of suitable roosting habitat (Gruver, J.C. and D.A. Keinath 2006).	Possible /No
Midget faded rattlesnake (<i>Crotalus viridis concolor</i>)	A small, pale-colored subspecies of the common and widespread western rattlesnake. The midget faded rattlesnake is endemic to northwestern Colorado, including western Garfield County. Habitats include sandy and rocky areas in pinyon-juniper and semi-desert shrub.	Absent /No

Northern goshawk (<i>Accipiter gentilis</i>)	An uncommon resident in mountains. Occasional migrant that may winter at lower elevations. Predominantly uses mature stands of aspen, and ponderosa/ lodgepole pines. Goshawks prey on small-medium sized birds and mammals. It breeds in coniferous deciduous and mixed forests. The nest is typically located on a northerly aspect in a drainage or canyon and is often near a stream. Nest areas contain one or more stands of large, old trees with a dense canopy cover. A goshawk pair occupies its nest area from March until late September. The nest area is the center of all movements and behaviors associated with breeding from courtship through fledging.	Possible/No
Brewer's sparrow (<i>Spizella berweri</i>)	Neotropical migrant that summers in western Colorado mountain parks and spring/fall migrant at lower elevations. Breeds primarily in sagebrush shrublands.	Possible /No
American Peregrine Falcon (<i>Falco peregrines anatum</i>)	Rare spring and fall migrant in western valleys. Peregrine falcons inhabit open spaces associated with high cliffs and bluffs overlooking rivers. The falcon nests on high cliffs and forages over nearby woodlands.	Absent /No
Ibis, white-faced (<i>Plegadis chihi</i>)	The species inhabits primarily freshwater wetlands, especially cattail (<i>Typha</i> spp.) and bulrush (<i>Scirpus</i> spp.) marshes. This bird is a very rare, non-breeding, summer migrant to western Colorado valleys and mountain lakes This species feeds in flooded hay meadows, agricultural fields, and estuarine wetlands. This species breeds in isolated colonies in mainly shallow marshes with "islands" of emergent vegetation. This species is more commonly found on the eastern slope of Colorado (e.g. San Luis valley).	Absent/No

Environmental Effects

Proposed Action

The federally listed, proposed, or candidate or BLM sensitive aquatic or terrestrial species are not expected to be impacted based on the habitat types present within the project area and documented occurrences. Therefore, the Proposed Action would have *No Effect* on these species.

Northern Goshawk.

The current CRVFO land use plan (BLM 1984) protects raptor nesting and fledging habitat with a timing limitation stipulation. This limitation restricts certain disturbing activities within a one-quarter mile buffer zone around the nest site from February 1 to August 15. No nest sites are known to occur within the area of the Proposed Action.

Mitigation

If a goshawk nest is found the within ¼ mile of the project area, disturbing activities will be mitigated or curtailed from February 1 – August 15 (BLM 2012).

In general, the potential effects to special status wildlife from the Proposed Action would be similar to those described for other wildlife (see sections on Wildlife, Aquatic and Wildlife, Terrestrial), although they are potentially more vulnerable due to their relative rarity and sensitivity.

Proposed Action

No Action Alternative

If no large fires occur in the future, the no action alternative would then support terrestrial wildlife species that favor older seral stage habitats. No species would be displaced, disturbed or perish due fuels treatment activities.

If a catastrophic wildfire would occur, some individuals would likely perish in large unplanned wildland fires. Terrestrial wildlife would be threatened by large-scale, long-term changes in habitat. Large fires destroy habitat locally and increase habitat fragmentation across the region. There would be direct and indirect impacts because of the loss of vegetative cover within the burned area. However it must be recognized that some terrestrial wildlife species and their prey utilize early successional habitats that develop following wildfires.

Aquatic species could be impacted by the decrease in ground cover and an increase in the sediment load from soil erosion on nearby drainage slopes if a catastrophic wildfire were to occur.

Mitigation

None Needed

Land Health Standards

The Proposed Action is located within the Divide Creek Landscape. A formal Land Health Assessment and Determination Document for this landscape were completed and signed in 2010 (BLM 2009). The Proposed Action should not result in a failure of the landscape to achieve Standard 4 for threatened, endangered, and other special status species.

Wildlife: Terrestrial

Affected Environment

The CRVFO supports a wide variety of terrestrial wildlife species that summer, winter, or migrate through the area. The habitat diversity provided by the broad expanses of sagebrush, mixed mountain shrub, aspen, pinyon-juniper woodlands, other types of coniferous forests, and riparian/wetland areas support many species. The current condition of wildlife habitats varies across the landscape. Some habitat is altered by power lines, pipelines, fences, public recreation use, residential and commercial development, vegetative treatments, livestock and wild ungulate grazing, oil and gas development, and roads/trails. These factors have contributed to some degradation/fragmentation of habitat as well as causing disturbance to some species.

Mammals

Numerous small mammals reside within the CRVFO, including ground squirrels (*Spermophilus* spp.), chipmunks (*Neotamias* spp.), rabbits (*Sylvilagus* spp.), skunks (*Mephitis mephitis*), and raccoons (*Procyon lotor*). Many of these small mammals provide the main prey for raptors and larger carnivores. These species are most likely to occur along the drainages, near the margins of dense oakbrush, in pinyon-juniper woodland, or in the small area of aspen and spruce/fir. Larger carnivores expected to occur include the bobcat (*Lynx rufus*) and the coyote (*Canis latrans*). Black bears (*Ursus americanus*) make use of oaks and the associated chokecherries and serviceberries for cover and food, while mountain lions (*Felis concolor*) are likely to occur during seasons when mule deer (*Odocoileus hemionus*) are present.

The mule deer (*Odocoileus hemionus*) is a recreationally important species that is common throughout suitable habitats in the region. Another recreationally important big game ungulate (hoofed animal), the Rocky Mountain elk (*Cervus elaphus nelsonii*), is also present. Mule deer and elk usually occupy higher elevations, forested habitat, during the summer and then migrate to sagebrush-dominant ridges and south-facing slopes at lower elevation in the winter. BLM lands provide a large portion of the undeveloped winter range available to deer and elk. Shiras Moose (*Alces alces shirasi*) are also becoming more

common in the region because of herd translocations, strong reproduction, and the ability to pioneer into suitable habitat. Moose rely on browse species for forage and prefer mixed subclimax communities, boreal forests, and riparian habitats. The moose in the region provides significant watchable wildlife opportunities and is anticipated that it will bring hunting opportunities in the near future. Since introduction moose in the region are generally found at elevations higher than 7,000 feet during the summer and winter.

Resident Raptors and Other Birds

Birds of prey (eagles, falcons, hawks, and owls) may migrate through the area or nest in cottonwoods, conifers, or very tall oaks, while the numerous songbirds and small mammal populations provide the primary prey base. Common raptor species in the CRVFO include the: red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), great horned owl (*Bubo virginianus*), Cooper's hawk (*Accipiter cooperii*), and sharp-shinned hawk (*A. striatus*).

Passerine (perching) birds commonly found in the area include the: American robin (*Turdus migratorius*), pinyon jay (*Gymnorhinus cyanocephalus*) western scrub-jay (*Aphelocoma californica*), and black-billed magpie (*Pica pica*). Two gallinaceous species, the wild turkey (*Meleagris gallopavo*) and the Dusky grouse (*Dendragapus obscurus*), are found throughout the CRVFO.

Streams, rivers, reservoirs, ponds, and associated riparian vegetation provide habitat for a wide variety of waterfowl and shorebirds. Common species include: great blue herons (*Ardea Herodias*), Canada geese (*Branta canadensis*), mallards (*Anas platyrhynchos*), pintails (*A. acuta*), gadwalls (*A. strepera*), and American wigeon (*A. americana*).

Reptiles and Amphibians

Reptile species most likely to occur in the project area include the western fence lizard (*Sceloporus undulatus*) and gopher snake (bullsnake) (*Pituophis catenifer*) in xeric shrublands or grassy clearings and the western terrestrial garter snake (*Thamnophis elegans*) along creeks/riparian areas. Other reptiles potentially present along creeks, are the milk snake (*Lampropeltis triangulum*) and smooth green snake (*Opheodrys vernalis*).

Environmental Effects

Proposed Action

It is likely that during the fuel treatments that resident wildlife would be displaced away from the area due to noise, commotion, and human presence. Overall, the Proposed Action should have minimal impact to terrestrial wildlife.

Reptiles, Birds and Mammals. The Proposed Action would somewhat mimic a natural disturbance. Openings can create a diverse landscape that can favor many terrestrial wildlife species that require a mix of seral stages for optimum habitat conditions. Opening size is species specific but generally the opening should not be large (i.e. >100 acres). This project would reduce the age-class diversity of the tree component of the ecosystem and likely improve grass and forb diversity and cover (see vegetation section) by creating small openings (i.e. <100 acres). Foraging opportunities (e.g. growth and palatability) for herbivores and their predators would increase as understory grasses, forbs, and shrubs reestablish.

Big Game. The project area is located within CDOW Game Management Unit (GMU) 43. Big game populations are managed to achieve population and sex ratio objectives established for Data Analysis Units (DAU). A DAU is the geographic area that represents the year-round range of big game herds and includes all of the seasonal ranges of a specific herd. The primary decisions needed for each DAU plan are how many animals should exist in the DAU and what is the desired sex ratio for the population of big game animals e.g., the number of males per 100 females. No finalized DAU plan exists for E-15 (elk),

but a DAU plan exists for D-13 (mule deer) for the GMU that encompasses the project area (CDOW 2012). The entire project area is CDOW mapped mule deer summer range. Mule deer summer range is where 90% of the individuals are located between spring green-up and the first heavy snowfall. Summer range is not necessarily exclusive of winter range; in some areas winter range and summer range may overlap (CDOW 2011a). The entire project area is CDOW mapped elk summer range (CDOW 2011b) and the northeast part of the project area is mapped elk winter range. CDOW mapped elk summer range is similar to the mapped mule deer summer range. CDOW mapped elk winter range is part of the overall range of elk where 90% of the individuals are located during the average five winters out of ten from the first heavy snowfall to spring green-up (CDOW 2011c). Due to the potential for winter range and summer range overlap, fuel treatments should occur outside of high use seasons, such as the fall big game rifle hunting seasons. A primary issue for wildlife, specially deer and elk, in the GMU 43 is the decline (quality and quantity) of vegetation on winter ranges (CDOW 2012). Reasons for this decline are many and varied. The project area is also located in DAU M-5 and is CDOW mapped moose overall range, which is the area that encompasses all known seasonal activity areas within the observed range of a population of moose (CDOW 2011d). The moose in DAU M-5 have been found in all habitat types. Oakbrush stands were the primary habitat type used by transplanted moose, but as the population expands habitat selection may shift to more typical moose habitats such as riparian areas and spruce/fir forests (CDOW 2012). Overall, the proposed fuel treatments would help establish a diversity of seral stages and improved herbaceous understory vegetation that will benefit big game by creating a mix of optimum habitat conditions.

Weed Treatments. Herbicides affect wildlife directly when animals are exposed to chemicals, or indirectly when wildlife habitat is altered. Herbicides used by the CRVFO have a low toxicity to terrestrial wildlife. Therefore, use of approved herbicides would primarily affect wildlife through habitat modification. Its use in forested rangeland and other wildlife habitat areas could benefit wildlife by controlling invasive plant species and promoting the establishment and growth of native plant species that provide more suitable wildlife habitat and forage (BLM 2007).

Mitigation

Fuel treatments if they should occur during high use seasons, such as the fall big game rifle hunting season, signage should be placed along main access routes.

Proposed Action

No Action Alternative

The no action alternative would support terrestrial wildlife that favors older seral stage habitats. No terrestrial wildlife would be displaced, disturbed or perish due to fuels treatments.

Reptiles, Birds and Mammals (including big game). If no large fires occur in the future, woody plants would continue to move toward the older age classes. With a lack of understory of grass and forbs, older stands would benefit wildlife that utilize the mature trees and their seed crops for security/escape cover and food.

It is difficult to quantify the impacts of a potential catastrophic wildfire before it occurs. Impacts of a large, severe wildfire could conceivably affect a larger habitat area and potentially have a greater impact on local wildlife populations. The direct impact of a catastrophic fire would be large scale vegetation changes that would likely reduce the local populations of reptiles, birds and mammals in the short-term. Since wildfires often burn larger acreage than the proposed treatment, long-term negative effects are not known.

Weed Treatments. There would be a reduced chance of land management activities spreading weeds and no spraying of weeds resulting in no impacts to terrestrial wildlife from the No Action Alternative.

Mitigation
None needed.

Land Health Standards

A formal Land Health Assessment was completed for the area in 2009 (BLM 2009). The area was meeting Standard 3 for terrestrial wildlife in the action area. Given the vegetation treatment location, the Proposed Action should have little bearing on the watersheds ability to continue to meet Standard 3 for terrestrial wildlife. Implementation of the Proposed Action is expected to maintain or improve terrestrial wildlife habitat and forage.

CUMULATIVE EFFECTS

Soil and Water. Cumulative impacts to soil and water resources can occur from existing roads and trails throughout the allotment. Roads and trails can contribute to increased surface runoff and accelerated erosion, especially where proper drainage is lacking. Other impacts such as vegetation treatments, weed treatments, or livestock grazing may also change water infiltration or runoff rates and affect soil and water resources. Based on limited land management activities occurring across the watershed, it is assumed that cumulative effects to soil and water are minor and unmeasureable if proper best management practices are implemented.

RESIDUAL EFFECTS

5. Tribes, Individuals, Organizations, or Agencies Consulted

6. List of Preparers

Members of the CRVFO Interdisciplinary Team who participated in the impact analysis of the Proposed Action and alternatives, development of appropriate mitigation measures, and preparation of this EA are listed in Table 6-1, along with their areas of responsibility.

Table 6-1. BLM Interdisciplinary Team Authors and Reviewers		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
Kimberly Miller	Outdoor Recreation Planner	Recreation, Wilderness, Wild and Scenic Rivers
Monte Senor	Rangeland Management Specialist	Range Management/Invasive Species
Carla DeYoung	Ecologist	Areas of Critical Environmental Concern, Threatened, Endangered, and Sensitive Plants, Vegetation, Land Health Standards
Pauline Adams	Hydrologist	Soil, Water, Air, Geology
Rusty Stark	Fire Management Specialist	Fuels/Fire, Forest
		Wildlife

7. References

- Bureau of Land Management (BLM). 1984. Glenwood Springs Resource Management Plan. Glenwood Springs Field Office, Colorado.
- _____. 1991. Record of Decision, Oil and Gas Plan Amendment. Glenwood Springs Field Office, Colorado.
- _____. 1998. Oil & Gas Leasing & Development – Draft Supplemental Environmental Impact Statement. Glenwood Spring Field Office, Colorado.
- _____. 1999a. Oil & Gas Leasing & Development – Final Supplemental Environmental Impact Statement. Glenwood Spring Field Office, Colorado.
- _____. 1999b. Oil & Gas Leasing & Development – Record of Decision and Resource Management Plan Amendment. Glenwood Spring Field Office, Colorado.
- _____. 2000. Watershed, 5th Field Watershed ESRI SDE Feature Class and Metadata. Colorado River Valley Field Office, Colorado. U.S. Department of the Interior.
- _____. 2006. Final Roan Plateau Resource Management Plan Amendment & Environmental Impact Statement, Volume III, Appendix C. Glenwood Springs Field Office, Colorado.
- _____. 2007. Final Vegetation Treatments on BLM Lands in 17 Western States Programmatic Environmental Report (PER). Reno, Nevada.
- _____. 2009. Divide Creek Land Health Assessment Summary Report. Unpublished report. Colorado River Valley Field Office, Silt, CO.
- _____. 2009. Information Bulletin No. CO-2010-007. State Director’s Sensitive Species List. December 15, 2009.
- _____. 2012. Colorado River Valley Field Office Fire Management Plan. IV.C.1.4. Species Specific Vegetation Treatment Guidelines. Colorado River Valley Field Office, Colorado. U.S. Department of the Interior.
- Colorado Division of Wildlife (CDOW). 2011a. Mule Deer Summer Range ESRI SDE Feature Class and Metadata. Colorado Division of Wildlife, Wildlife GIS. Fort Collins, CO.
- _____. 2011b. Elk Summer Range ESRI SDE Feature Class and Metadata. Colorado Division of Wildlife, Wildlife GIS. Fort Collins, CO.
- _____. 2011c. Elk Winter Range ESRI SDE Feature Class and Metadata. Colorado Division of Wildlife, Wildlife GIS. Fort Collins, CO.
- _____. 2011d. Moose Overall Range ESRI SDE Feature Class and Metadata. Colorado Division of Wildlife, Wildlife GIS. Fort Collins, CO.
- _____. 2012. Colorado Division of Wildlife Herd Management (DAU) Plans 2011. [Online]. Website. <http://wildlife.state.co.us/Hunting/BigGame/HerdManagementDAUPlans/Pages/HerdManagementDAUPlans.aspx>. [Last updated September 20, 2012].
- Gruver, J.C. and D.A. Keinath. 2006. Townsend’s Big-eared Bat (*Corynorhinus townsendii*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region. [Online]. Website. <http://www.fs.fed.us/r2/projects/scp/assessments/townsendsbigearedbat.pdf>. [Last updated December 11, 2009].
- Natural Resource Conservation Service (NRCS). 1985. Soil Survey of Rifle Area, Colorado, Parts of Garfield and Mesa Counties. Available online: http://soils.usda.gov/survey/online_surveys/colorado/
- Natural Resource Conservation Service (NRCS). 2011. Map Unit Descriptions for *Rifle Area, Colorado, Parts of Garfield and Mesa Counties*. Soil Data Viewer application. Available online: <http://soils.usda.gov/sdv/>.
- U.S. Fish and Wildlife Service (USFWS). 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. [Online]. Website. <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html/BCC2008.pdf>. [Last updated April 11, 2012].
- _____. 2010. . U.S. Fish and Wildlife Service. Threatened, Endangered, Candidate, and Proposed Species by County. [Online]. Website. <http://www.fws.gov/mountainprairie/endspp/CountyLists/COLORADO.pdf>.

_____. 2011. [Online]. Website: <http://ecos.fws.gov/ipac/wizard/trustResourceList!prepare.action>
[Last updated November 3, 2011].

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COLORADO RIVER VALLEY FIELD OFFICE
SILT, COLORADO

FINDING OF NO SIGNIFICANT IMPACT

DOI-BLM-N040-2012-0093-EA

Finding of No Significant Impact

I have reviewed the direct, indirect and cumulative effects of the proposed action documented in the EA referenced above. The effects of the proposed action are disclosed in the Alternatives and Environmental Effects sections of the EA. Implementing regulations for NEPA (40 CFR 1508.27) provide criteria for determining the significance of the effects. Significant, as used in NEPA, requires consideration of both *context* and *intensity* as follows:

(a) Context. This requirement means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short and long-term effects are relevant (40 CFR 1508.27):

(b) Intensity. This requirement refers to the severity of the impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following are considered in evaluating intensity (40 CFR 1508.27).

1. Impacts that may be both beneficial and/or adverse. The impacts of this activity have been evaluated by Colorado River Valley Field Office (CRVFO) staff and have determined that the proposed action will not have a significant impact on the human environment. One beneficial impact would be reduced threat of wildfire to adjoining communities.

2. The degree to which the proposed action affects health or safety. Due to the limited scale, size, and duration of the proposed action there should be little threat to health and safety. All activities will comply with OSHA regulations for safety enforcement.

3. Unique characteristics of the geographic area such as prime and unique farmlands, caves, wild and scenic rivers, wilderness study areas, or ACECs. The identified project area has been evaluated using Geographical Information Systems and found not to impact areas with unique characteristics. There are no unique characteristics identified within the project area.

4. The degree to which the effects are likely to be highly controversial. The project has been scope internally with the CRVFO staff, the Colorado State Forest Service, adjacent landowners and Glenwood Springs Fire Department. It was supported by all in scoping and unlikely to be controversial.

5. The degree to which the effects are highly uncertain or involve unique or unknown risks. Treatments in oak brush of this nature have been fairly common in the field office. In the implementation of these

projects there has been little documentation about unknown effects, or risks that are created from these activities.

6. *The degree to which the action may establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration.* The degree to which this action may establish a precedent for future actions is minimal as all of the management actions are addressed individually through the same environmental evaluation process to determine impacts.

7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.* Other activities that take place on and adjacent to this parcel of land (e.g. recreation, residential, development, road construction/maintenance) have had the cumulative effect of altering wildlife habitat. Future activities are difficult to determine and have an unknown effect. The proposed action would create negligible landscape-level cumulative impacts to wildlife when viewed in comparison with those activities currently occurring and likely to occur on adjacent private/other lands.

8. *The degree to which the action may adversely affect scientific, cultural, or historical resources, including those listed in or eligible for listing in the National Register of Historic Places.* A records search of the general project area, and a Class III inventory of the Area of Potential Effect (APE), as defined in the National Historic Preservation Act (NHPA), was completed by a Colorado BLM permitted cultural resource contracting firm (CRVFO CRIR# 18512-1). The project inventory and evaluation is in compliance with the NHPA, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources. These surveys and research has been conducted to identify, protect, and mitigate any potential adverse effect that may occur due to these management actions.

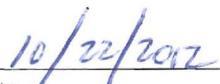
9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.* For special status listed the 1) inconsequential amount of direct or indirect habitat modification, 2) transient nature of their potential use of the area, and 3) brief period of treatment related activities in any given part of the project area combine to result in negligible potential for adverse impacts to special status species.

10. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.* All actions will be implemented with adherence to federal, state, and local government requirements for environmental protection.

Based upon the review of the test for significance and the environmental analyses conducted, I have determined that the actions analyzed in the EA will not significantly affect the quality of the human environment. Accordingly, I have determined that the preparation of an Environmental Impact Statement is not necessary for this proposal.



Authorized Officer
Colorado River Valley Field Office



Date

DECISION RECORD

DOI-BLM-CO-040-2012-0093 EA

FINAL DECISION: Based on information in the EA, the project record, and consultation with my staff, I have decided to choose the Proposed Action as described in the EA. The project is not expected to adversely impact any resources long term and the benefits of the treatments outweigh any short-term adverse impacts. The fuels reduction project adjacent to the Mountain Springs Subdivision will be of benefit to the community as it will reduce the severity and intensity of a wildfire if one were to occur in this area as well as reduce the risk of damages to private property and improvements.

RATIONALE:

1. The project would remove fuels from the area reducing the threat of large scale high severity and high intensity fire to the Mountain Springs Subdivision.
2. In implementing this project there would be a decreased the risk of damage by fire to improvements on private property and maintain the meadows that are currently being encroached upon by brush communities as well as conifer.
3. The fuels reduction project will maintain the meadows by removing mixed mountain shrub encroachment as well as reducing the amount of encroachment by mixed conifer.

MITIGATION MEASURES:

- Class III archeological inventory has already been performed. If historic properties or artifacts are identified mitigation will have to be developed to protect these sites.
- Fuel treatments if they should occur during high use seasons, such as the fall big game rifle hunting season, signage should be placed along main access routes.
- If a goshawk nest is found the within ¼ mile of the project area, disturbing activities will be mitigated or curtailed from February 1 – August 15 (BLM 2012).
- Do not cut standing dead or live trees with (a) natural cavities or holes, and (b) evidence of nesting (e.g. cup nests, cavity nests, platform nests, pendant nest, sphere nest) or roosting birds.
- Avoid trampling and cutting trees near active scrape/ground nests (i.e. a shallow depression in soil or vegetation lined with bits of vegetation, small stones or feathers).
- Avoid fuel treatments until after July 1st, when the young of most species have fledged and adults are no longer tied to specific territories.

- In treatment areas on fragile soils or high intensity treatment areas, monitor for soil productivity, erosion and weeds. If deemed necessary, soil amendments (i.e. fertilizers, bacterial or fungal) and/or seeding may be required to enhance soil health and maintain native vegetation.
- Post public notices to inform the public of intended project work. Mitigation to reduce conflicts with public land users (big game hunters) includes: Mechanical vegetation treatments should avoid the annual Colorado rifle big game hunting seasons if practical.
- If the mechanical treatment would result in residual piles of mulch more than 3-4 inches thick on the ground, the mulch would be hauled off-site.

RIGHT OF PROTEST AND / OR APPEAL:

All of the documents supporting this decision are available for the review by the public. Appeal procedures for this decision are outlined in Title 43 of the Code of Federal Regulations (CFR), Part 4. In accordance with Title 43 CFR 4.410 any party to a case who is adversely affected by the decision of an officer of the Bureau of Land Management shall have a right to appeal to the Interior Board of Land Appeals (Board). The Notice of Appeal must be filed in the Bureau of Land Management office that issued the decision within 30 days after the date of service (43 CFR 4.411). Procedures for filing an appeal are described on BLM Form 1842-1 (September 2005) and available online at: http://www.blm.gov/pgdata/etc/medialib/blm/co/field_offices/slyplc/travel_management/final_tmp.Par.46660.File.dat/BLM_1842-1%5B1%5D.pdf

NAME OF PREPARER: Rusty Stark- Fire Management Specialist

SIGNATURE OF AUTHORIZED OFFICIAL



Karl Mendonca
Associate Field Office Manager

DATE: 10/22/2012

Mtn Springs WUI Project Area - 274 acres

