

ENVIRONMENTAL ASSESSEMENT  
DOI-BLM-CO-140-2009-0024-EA  
Sky Legend/Gypsum Campground Fuels Reduction Project

U.S. Department of the Interior, Bureau of Land Management  
Glenwood Springs Field Office  
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Lands Managed by the Bureau of Land Management (BLM):  
Township 5 South, Range 85 West, Section 7  
Township 4 South, Range 86 West, Section 36  
Township 4 south, Range 85 West, Section 31  
Eagle County, Colorado

**NEED FOR THE ACTION:** Sky Legend is a subdivision located in a moderate wildland fire occurrence area. The subdivision is adjacent to the east of BLM land that has a very high fuel loading and is at risk of a potential catastrophic wildfire. The fuel type for these units is characterized by pinyon/juniper woodlands; Gambel oak, mountain shrub, tall and short grasses, and sagebrush. Locally there have been a number of major wildfires in these types of fuels. Catastrophic wildland fires in the Glenwood Springs Field Office and in this fuel type of significance in recent years include the South Canyon, Coal Seam, and most recently the New Castle. Many wildland fires have been suppressed during initial attack period by federal and local fire protection agencies and kept small in the area. The area of concern in the sky legend unit is the private/BLM property line located on the west side of the subdivision. This area is directly adjacent to a new home development and hosts a community water tank that is adjacent to heavy fuel loading on the BLM side of the boundary. The vegetation of the unit includes pinyon pine (*Pinus edulis*), Utah juniper (*Juniperus osteosperma*), grasses, and a small amount of Big Sagebrush (*Artemisia tridentata*). There is also a heavy concentration of dead and downed woody material. The proposed action would break up the continuity of vegetation by reducing the canopy closure, and limbing of ladder fuels. This proposed fuels reduction project would in turn reduce the chance of a crown fire and spotting into adjacent lands and the subdivision. By burning of created slash piles, fire would be returned to a fire adapted ecosystem in a controlled form. The Eagle County Community Wildfire Protection Plan identifies this area as a very high with pockets of extreme hazard rating for wildland fire. The proposed action would increase fire fighter and public safety in the event of a wildland fire.

The Gypsum Campground Unit is located approximately 2 miles to the north and northwest of the Sky Legend Unit and would be included for analysis in this Environmental Assessment. The Gypsum Camp Ground is located on BLM administered land and is adjacent to private land on the east side of the parcel. The campground is also located directly adjacent and south of Interstate 70. The campground is heavily used by the public and has overgrown fuels around fire grates and camping areas. The fuels between the campground and private land are continuous big

sagebrush and grass. The location of the campground and adjacent subdivision put terrain, wind, and fuel into alignment for a potential devastating wildfire. Fuel mitigation work in the campground would decrease the potential for a wildfire to start in the campground and spread to nearby homes on private land. This project would also increase fire fighter and public safety in the event of an unplanned fire.

General objectives of this environmental assessment and subsequent projects are as follows:

- 1) Reduce the hazardous fuel conditions on public lands to decrease the threat of catastrophic wildland fire moving from public land to private lands.
- 2) Reduce the threat of an escaped fire in the Gypsum Campground moving onto private land.
- 3) Alter fire behavior from a crown fire to a ground fire.
- 4) Increase safety for firefighters and public in the event of a catastrophic fire event.

## **DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

### **Proposed Action:**

The proposed action is designed to reduce hazardous fuels on public lands. To reduce hazardous fuels a variety of treatment methods would be used either as a stand alone treatment or in combination with several treatment types. Treatment methods would include use of mechanical equipment (hydro-axe, roller chopper and any other mulching equipment), hand cutting, herbicide application to noxious weeds, chipping slash, moving slash off site, piling slash and pile burning.

The proposed action is located on BLM lands and divided into two units. These units are identified as Sky Legend unit and Gypsum Campground unit. The Sky Legend unit is 46 acres in size and located west of the Sky Legend Subdivision in Gypsum, Co. The Gypsum Campground unit is 19 acres in size and located approximately 1 mile from the I-70 and Gypsum exit intersection.

This proposed action includes maintenance of both units for a period of 10 years. Maintenance can include additional thinning of regenerating vegetation and piling and burning.

### **Sky Legend Unit**

Legal Description: Township 5 South, Range 85 West, Section 7

The following is a description of treatments specific to the Sky Legend unit.

### **Hand Treatment:**

The Sky Legend unit would have a goal of reducing ladder fuels and creating a canopy spacing of 10 to 25 feet between mature trees or 30-40 feet between the boles of trees. This would include limbing mature trees to a height of 3-6 feet above ground level to reduce ladder fuels. Trees less than 5 inches DBH would be cut and piled or chipped. 50 to 70% of dead and downed

woody material would be cut and piled. All stumps that are left would be flush cut as low as possible to retain the aesthetics of the woodlands. Biomass will be piled in and burnt after the needles have cured. There will be a buffer of approximately ¼ mile diameter around any known culturally sensitive sites where no work would be conducted ensuring protection of sites. During the pile burning process, a burn plan will be followed and adequate moisture in adjacent fuel and ground will be present to safely conduct the burn. A BLM representative will be present at the time of project implementation to provide guidance and answer questions to crew leaders conducting the work.

### **Noxious weeds:**

No known infestations of noxious weeds exist at or near the project site to date. However, given the widespread nature of weeds throughout the field office, it is assumed that noxious and invasive species are likely to occur within the project zone or increase as a result from the implementation of the proposed action. For that reason, inventories for the presence of noxious and invasive species will be conducted before and for a period of 5 years after the project is completed as proposed. In the event noxious weeds are located in the project area, manual and/or chemical control methods would be used alone or in combination to control or eradicate the weed species. Manual control would consist of cutting, grubbing, pulling, or stabbing the plant below the root crown with hand tools. This method would be encouraged if the target pest occurs at relatively low numbers. Chemical control methods would include using BLM approved herbicides delivered via means of either a backpack sprayer or a spray unit mounted on a UTV. The weeds would be spot sprayed to minimize negative effects on non-target plant species. Herbicides and application rates would be approved through a Pesticide Use Proposal (PUP). Large equipment used in the implementation of the proposed action would be required to be cleaned with a power- or high-pressure washer prior to moving into relatively noxious weed-free areas and/or leaving known noxious weed-infested areas.

### **Pile Burning:**

Debris from hand cutting would be piled and burnt at a later date. All piles would have adequate time to cure to promote the best burning conditions for consumption. Piles would be placed far enough away from leave trees to prevent scorching. Pile burning would be accomplished by federal firefighters when conditions are acceptable to implement burn. Acceptable conditions are defined as 1 inch or better of snow on the ground or adequate moisture in adjacent vegetation and soil to prevent fire spread from pile to adjacent fuels. An approved burn plan would be followed to accomplish pile burning. A Colorado smoke permit would be applied for and obtained before any pile burning would occur. The smoke permit would be followed to mitigate any smoke issues that might arise during burning operations. No control lines are expected to be needed for pile burning operations due to snow or adequate moisture during burn days.

The following are both design and mitigation measures that would be implemented as part of the Sky Legend unit proposed action, and would be applicable to all fuels treatments throughout the life of this project.

1. Hand cutting by chainsaw would thin and remove vegetation with irregular and mosaic patterns and would avoid creating straight lines and square corners.

2. A ¼ mile diameter buffer zone where no activities would occur would be identified and observed around any known culturally sensitive site.
3. Canopy spacing of Pinyon and Juniper trees would be modified to 10 to 25 foot spacing over 70% of unit. Trees less than 5 inches DBH would be cut. Ladder fuels would be limbed to 3- 5 feet above ground level. All debris created by cutting would be piled and burned when slash has cured, or chipped where applicable due to terrain and access.
4. 50 to 70 % of dead and down woody material could be cut to size and piled.
5. Any brush disposal by pile burning would be conducted when adjacent fuels are either wet or snow covered, and when a smoke dispersal forecast of moderate or better is predicted. An approved burn plan would be followed for burning operations.
6. A Pesticide Use Proposal (PUP) is required to be submitted and approved for herbicide application. Approval of the PUP requires the applicator to be a licensed herbicide applicator through the State of Colorado, Department of Agriculture.
7. Several small slash and brush piles could be left for small game habitat given that they would be located away (not immediately adjacent) to a house and that the brush piles would not detract from the overall project objective reducing fuels and providing a more defensible space for fire suppression activities.
8. To minimize impacts to cavity-nesting migratory birds and the potential destruction of nests and/or eggs, avoid cutting medium to large standing dead trees (snags) that are not deemed to be a safety hazard.

### **Gypsum Campground Unit:**

Legal Description:

Township 4 South, Range 86 West, Section 36

Township 4 south, Range 85 West, Section 31

### **Hand Treatment:**

The Gypsum Camp Ground unit would include hand treatment of sagebrush and other brush species by chainsaw, weed eater, or hand tools. Vegetation around campsites and recreation sites would be cut to create adequate spacing between fire pits, picnic tables, and parking areas. Work on East end of unit would include a 75 to 100 Ft. buffer along the public/private boundary. This area would be hand cut with chainsaws to remove vegetation to reduce fuel loadings. Removed material would be chipped and then spread out within the unit, or hauled off the site. This would create defensible space between public and private lands. Areas on the west end of the unit would have general cleanup of dead and down woody material, overgrown understory, and the removal of hazard trees. Debris created would be chipped and spread out through the unit or hauled off site.

**Mechanical Treatments:**

If deemed appropriate a small machine such as a hydro-axe, roller chopper, or other similar chipping/mulching machine could be used to create openings in vegetation of larger continuous vegetation tracts. The machinery would create small openings in vegetation with the intent to break up the continuity and alter fire behavior within the site. Any machinery used would follow a site specific plan created by recreation specialist from the Glenwood Springs Field Office.

**Noxious Weeds:**

Whitetop, musk thistle, houndstongue, and cheatgrass occur within the Gypsum campground. These noxious weed species would likely increase as a result of implementing the proposed action. Manual, mechanical, and/or chemical control methods would be used alone or in combination to control or eradicate the weed species before and after the project. Manual control would consist of cutting, grubbing, pulling, or stabbing the plant below the root crown with hand tools. This method would be encouraged if the target pest occurs at relatively low numbers. Mechanical control would consist of the use of a weed-whacker to cut the target weed species above the ground. This method would injure the weed species thereby increasing the effects of herbicidal treatment techniques the following fall. Chemical control methods would include using BLM approved herbicides delivered via means of either a backpack sprayer or a spray unit mounted on a UTV. The weeds would be spot sprayed to minimize the effects on non-target plant species. Herbicides and application rates would be approved through a Pesticide Use Proposal (PUP). Inventories to track the location and extent of noxious weed species would be conducted for a 5 year period after the project has been completed. If herbicides are used as a control technique, either the area treated would be signed or the campground would be closed for a period of 48 hours to minimize the health risks to the public. Large equipment used in the implementation of the proposed action would be required to be cleaned with a power- or high-pressure washer prior to moving into relatively noxious weed-free areas and/or leaving known noxious weed-infested areas.

**Chipping and Hauling off of Debris:**

Slash created from this project would be chipped and spread out through the unit. Chipped material could also be hauled off site if deemed necessary and feasible.

The following are both design and mitigation measures that would be implemented as part of the Gypsum Campground unit proposed action, and would be applicable to all fuels treatments throughout the life of this project.

1. Work would follow a site/unit specific vegetation manipulation plan provided by GSFO recreation specialist.
2. Work on East end of unit would include a 75 to 100 Ft. buffer along the public/private boundary. This area would be hand cut with chainsaws to remove vegetation to reduce fuel loadings. Removed material would be chipped and then spread out within the unit, or hauled off the site.

3. Areas adjacent to campsites would have vegetation removed either by hand with chainsaws, hand tools, or by means of a hydro axe, roller chopper machine or equivalent.
4. Along the West end of the unit, general cleanup of brush and trees would occur. This includes brushing around picnic sites, cleanup of dead and down woody material, and removal of hazard trees. Residual debris could be chipped and spread out through the unit or removed from the unit.
5. Herbicide could be used for noxious weed control in the campground. A pesticide use proposal (PUP) would be used for any herbicide application.
6. Removal of live riparian plant species will not occur.

**No Action Alternative:** No fuel reductions or treatment would be conducted on public land. Areas that currently have high fuel loadings would continue to accumulate fuel leading to wildland fire with even greater intensity which could lead to even greater threats to private land, infrastructure, and public and fire fighter safety.

#### **Alternatives Considered But Not Carried Forward.**

1. The use of a bulldozer to remove vegetation was considered but eliminated to keep surface disturbance and impacts to the least amount possible while achieving the goal of hazardous fuel reduction. A bulldozed line would create impacts far greater than those resulting from the proposed action. This alternative would result in excess and unacceptable ground disturbance.
2. A hydro-axe or roller chopper use in the Sky Legend Unit was considered. It was determined that the size and age class of trees is too great to use this type of machinery in this unit. Terrain features would also add potential for damage to the machinery.
3. Broadcast prescribed fire was considered but due to proximity to residence, interstate, and airport broadcast prescribed fire was eliminated. If broadcast prescribed fire was used In the Gypsum Campground unit, it was determined that it would create a negative effect for recreation users of the area.

#### **PLAN CONFORMANCE REVIEW:**

##### **BLM Lands:**

The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: 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 in 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..

Decision Number/Page: The proposed action is within Fire Management Unit B-140-05 - Eagle Valley-Gypsum Area. The fire management Objectives, Strategies (including Prescriptive Vegetative Treatments) and the Priority Ranking are in Appendix B, pages 31-33 of the Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance 2002 and revised 09/2004. Also within the Fire Management Plan, Chapter III pages 9 and 10 discusses Fuels Treatment Prioritization.

Decision Language: The priority ranking for Fuels Treatments is “HIGH”. The goals for prescriptive vegetative treatments in this unit include the following:

- \*Reduce hazardous fuel loading and the risks of wildland fire escaping public lands.
- \*To reduce the risks of large scale fires in critical watershed areas.
- \*To maintain or create diverse seral stages and improve herbaceous understory in vegetation types (sagebrush, mixed mountain shrublands/oakbrush, aspen).
- \*To reduce fuels around significant cultural sites.

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 Sky Legend project lies within the Red Hill allotment which is part of the Eagle River South Landscape unit. A formal land health assessment was conducted on this area in 2002, with the Determination Document signed on December 9, 2003. The Red Hill allotment was found to be meeting all the Standards except Standard 4 for sage grouse. The Gypsum Campground project lies within the Blowout allotment in the North Eagle Landscape unit. A formal land health assessment was conducted on this landscape in 2003, with the Determination Document signed on April 9, 2004. The Blowout allotment was determined to be meeting all the Standards except Standard 4 for sage grouse. Specific to the project area, the riparian zone along the Eagle River was infested with Canada thistle and whitetop and the uplands adjacent to the river had moderate to high levels of cheatgrass infestation.

Because a standard exists for these five categories, the impact analysis must address whether the proposed action or any alternatives being analyzed would result in impacts that would maintain, improve, or deteriorate land health conditions for that specific parameter. These analyses are located in specific elements listed below:

## **AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

This section provides a description of the human and natural environmental resources that could be affected by the proposed action and no action alternative. 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 critical environmental elements. Not all of the critical elements that require inclusion in this EA are present, or if they are present, may not be affected by the proposed action and alternative (Table 2). Only those mandatory critical elements that are present and affected are described in the following narrative.

In addition to the mandatory critical elements, there are additional resources that would be impacted by the proposed action and alternative. These are presented under Other Affected Resources.

<b>Table 2. Critical Elements of the Human Environment</b>									
<i>Critical Element</i>	<i>Present</i>		<i>Affected</i>		<i>Critical Element</i>	<i>Present</i>		<i>Affected</i>	
	Yes	No	Yes	No		Yes	No	Yes	No
Air Quality	X		X		Prime or Unique Farmlands		X		X
ACECs		X		X	Special Status Species*	X		X	
Cultural Resources	X			X	Wastes, Hazardous or Solid	X		X	
Environmental Justice					Water Quality, Surface and Ground*	X		X	
Floodplains		X		X	Wetlands and Riparian Zones*	X			X
Invasive, Non-native Species	X		X		Wild and Scenic Rivers		X		X
Migratory Birds	X		X		Wilderness/ WSAs		X		X
Native American Religious Concerns	X			X					

\* Public Land Health Standard

### **Critical Elements**

#### **Air Quality**

Affected Environment: The proposed action area (Eagle County) has been described as an attainment area under CAAQS and NAAQS (Colorado Ambient Air Quality Standards and National Ambient Air Quality Standards). An attainment area is an area where ambient air pollution amounts are determined to be below NAAQS standards.

*Proposed Action:*

Environmental Consequences/Mitigation: The proposed activities would result in short term localized emissions from chainsaws and mechanical equipment associated with the cutting and removal of trees, dust generation during dry conditions, and smoke associated with burning activities. While the affects of these activities appear to be minor, they could affect individuals in the vicinity sensitive to smoke such as the elderly, infants and young children, and those with breathing problems. Others that may be at risk include pregnant women, those active outdoors, and people with allergies or diabetes.

Pile burning activities would be conducted in accordance with the current State of Colorado Smoke Management Plan and permitted by open burning permits issued by the Colorado Department of Public Health and Environment Air Pollution Control Division. The timing of these activities would be such to minimize the likelihood of excessive smoke production and transport of pollutants. In addition, visual monitoring of burning activities would occur in the area by qualified individuals. Given the scale, location, and the timing of the proposed activities; it is anticipated that overall impacts to local air quality would be minimal and no mitigation is recommended at this time.

*No Action Alternative:*

Environmental Consequences: Under the no action alternative, no fuels reduction activities would occur. The result could be catastrophic wildfire which would have more of an effect on local air quality than the proposed fuels reduction activities.

## **Cultural Resources**

Affected Environment: Class III cultural resource inventories have been completed within the Gypsum Campground unit (GSFO# 280, 1178A, and 5401-12) and the Sky Legend unit (GSFO#5402-18 and 15406-2). One historic property and area of Native American Concern was identified in the Sky Legend unit.

*Proposed Action:*

Environmental Consequences/Mitigation: There would be no direct impacts to cultural resources from the implementation of the proposed action. However, indirect long-term cumulative impacts from increased access and the presence of project personnel could result in a range of impacts to known and undiscovered cultural resources in the vicinity of the location. These impacts could range from illegal collection and excavation to vandalism.

No historic properties were identified in the Gypsum Campground unit and as such there should be no adverse affects for this project. Sky Legend unit mitigation has been developed to protect the historic property and area of Native American concern. Additionally, limbing of trees and the collection of dead wood from the ground may result in the inadvertent destruction of undiscovered wickiups. As long as this mitigation is adhered to the BLM can make a **Conditional No Adverse Affect** decision for theses fuel reduction units. The Inadvertent Discovery clause needs to be added and all personnel need to be informed about reporting and protecting cultural/Native American resources.

Mitigation A ¼ mile radius “no work zone” would be incorporated into the Sky Legend unit around known culturally sensitive sites.

Hand tools and care is taken to cut only attached limbs and not limbs leaning into a tree to create a shelter, the potential of adverse impacts to undiscovered wickiups should be minimized.

*No Action Alternative:* Under this alternative no treatment would occur and the potential for direct and indirect impacts to cultural resources from wild fires would continue.

### **Invasive, Non-native Species**

Affected Environment: No known infestations of noxious weeds exist at or near the Sky Legend project site to date. However, given the widespread nature of weeds throughout the field office, it is assumed that noxious and invasive species are likely to occur within the project zone or increase as a result from the implementation of the proposed action.

Whitetop, musk thistle, houndstonge, and cheatgrass occur within the Gypsum campground. These noxious weed species would likely increase as a result of implementing the proposed action.

### Environmental Consequences:

*Proposed Action:* Surface-disturbing activities provide a niche for the invasion and establishment of noxious and non-native species, particularly when these species are already present in the surrounding area. Because known noxious weeds are already present in the vicinity of the proposed project, the potential for noxious weed invasion is very high.

### **Mitigation:**

The proposed action includes weed prevention and control techniques that sufficiently mitigates the negative impacts to the increase and spread of noxious or invasive plants resulting from implementation of the project. Therefore, no other mitigation is required.

*No Action Alternative:* Under the No Action alternative, no fuels treatment projects would be implemented and no surface disturbances would occur.

### **Migratory Birds**

#### Affected Environment:

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.” *Birds of Conservation Concern 2008* (<http://www.fws.gov/migratorybirds/reports/BCC2008/BCC2008m.pdf>) is the most recent effort to carry out this mandate.

The conservation concerns may be 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 was 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 Glenwood Springs Field Office is within the Southern Rockies/Colorado Plateau Bird Conservation Region (BCR). The 2008 list include the following birds: Gunnison Sage Grouse, American Bittern, Bald Eagle, Ferruginous Hawk, Golden Eagle, Peregrine Falcon, Prairie Falcon, Snowy Plover, Mountain Plover, Long-billed Curlew, Yellow-billed Cuckoo, Burrowing Owl, Lewis's Woodpecker, Willow Flycatcher, Gray Vireo, Pinyon Jay, Juniper Titmouse, Veery, Bendire's Thrasher, Grace's Warbler, Brewer's Sparrow, Grasshopper Sparrow, Chestnut-collared Longspur, Black Rosy-Finch, Brown-capped Rosy-Finch, and Cassin's Finch.

The GSFO planning area provides both foraging and nesting habitat for a variety of migratory birds that summer, winter, or migrate through the area. The habitat diversity provided by the broad expanses of sagebrush, mixed mountain shrub, oakbrush, aspen, pinyon-juniper woodlands, other types of coniferous forests and riparian and wetland areas support many bird species. The Gray Vireo, Pinyon Jay, Juniper Titmouse, Lewis's Woodpecker and Grace's Warbler are characteristically found in pinyon/juniper woodlands and the Brewer's sparrow (*Spizella breweri*) is found within sagebrush habitats. Other Birds of Conservation Concern 2008 may also occur locally. Many species of raptors (red-tailed hawks, golden eagles, northern goshawks, Cooper's hawks, kestrels and owls) not on the Fish & Wildlife Service's Birds of Conservation Concern list also could occur in the area.

Bald eagle (*Haliaeetus leucocephalus*). Bald eagles are known to winter along portions of the Colorado, Eagle and Roaring Fork Rivers and its major tributaries. Wintering bald eagles are generally present from mid-November to mid-April. Large mature cottonwood trees along the the rivers and their major tributaries are used as roosting and perching sites, and these waterways provide the main food sources of fish and waterfowl. Upland habitats adjacent to these waterways are used as scavenging areas primarily for winter killed mule deer and elk. Major threats include habitat loss, human disturbance and illegal shooting. Bald eagles are increasing

in numbers throughout their range and were removed from the federal threatened and endangered species list in 2007 however bald eagles are still protected under the Migratory Bird Treaty Act.

### *Proposed Action*

#### Environmental Consequences/Mitigation:

*Impacts to Individuals.* The proposed project does have some potential to impact migratory bird species however limited bird count or species data exists for the area. The project has the potential to create some short-term impacts to individual birds (e.g destruction of eggs, nests and nesting habitat, fragmentation of habitat, human presence, noise, commotion, etc.) because a portion of the project work may occur during the nesting season. If disturbance occurs during the nesting period the destruction of active nests could occur. It is possible that trampling of ground nesting birds and/or their eggs could occur.

The disturbance would also temporarily displace nesting birds to adjacent habitat. Since most migratory birds occupy relatively small nesting season home ranges, it is expected that suitable habitat outside of treatment units will provide alternate cover for birds that are displaced during activities. The area outside of treatment units will also provide source populations for recolonization of areas in which individuals have been lost. Birds that are disturbed early in the nesting season may move out of the treatment area during operations and may re-nest later in the season and/or outside of the treatment area. Avoiding the cutting standing dead trees will reduce impacts to cavity-nesting migratory birds and minimize the potential destruction of nests and/or eggs.

Raptors are not expected to be negatively affected as no known nests are located within 0.25 mile of project area and upland foraging habitat is plentiful in the area. The project may impact individuals, but will not likely contribute to a trend towards the loss of viability of a population or species.

*Species Level Impacts.* Species require specific habitats to survive and reproduce. Meeting critical habitat needs may include ensuring perpetuation of characteristics important for breeding, producing, and rearing of young, feeding, refuge from predators, and protection from inclement environmental conditions. The project areas are so small that species will likely only use the project area for only part of the year or part of their life cycle.

Overall the amount of affected habitat, the relative abundance of pinyon-juniper habitats over the landscape reduces the chance of this project individually or cumulatively influencing populations of migratory birds on a landscape level. If similar habitat is broadly distributed regionally, then any local effects in a specific project area may be inconsequential to species viability. Given that the proposed fuels treatment does not alter habitat to the point that it is no longer suitable, it is likely that species such as the Gray Vireo, Pinyon Jay, Juniper Titmouse, Lewis's Woodpecker and Grace's Warbler would be resilient to short-term treatment effects. The conclusion is that the impacts to migratory birds would be regionally negligible and isolated and would not likely impact (e.g. species distribution, abundance, migratory/dispersal characteristics) the population at the species level for any specific species.

*No Action Alternative:* There would be no impacts to migratory birds from the No Action Alternative.

## **Native American Religious Concerns**

### Affected Environment:

*Proposed Action:* The Ute tribes claim this area as part of their ancestral homeland. At present, one area of Native American concern is known within the Sky Legend Unit. Consultation with the Ute Tribes was initiated on June 8, 2006. At that time we informed the Tribes of the site and the proposed treatment around it to reduce the threat of impacts from fires and our commitment to keeping the site location confidential as well as striving to protect the site from any future development. No formal response was received; however later field trips with the Ute's to similar sites indicated the importance of this type of site. If new data are disclosed, new terms and conditions may have to be negotiated to accommodate their concerns.

Environmental Consequences: Although there would be no direct impacts from the proposed action, indirect impacts from increased access and personnel in the vicinity of the proposed project could result in impacts to known and undiscovered Native American resources ranging from illegal collection to vandalism.

A standard Education/Discovery for the protection of Native American values would be attached to this project. The importance of this should be stressed to all personnel involved in the project, including informing them of their responsibilities to protect and report any cultural resources encountered. They should also be aware of requirements under the American Graves Protection and Repatriation Act (NAGPRA, Appendix A, Number 8).

### *No Action Alternative:*

Environmental Consequences: Under this alternative the proposed action would not occur and the potential for direct and indirect impacts from wild land fires to cultural resources would not be reduced.

## **Special Status Species (includes an analysis of Public Land Health Standard 4)**

### Affected Environment:

Listed, Proposed, Candidate Species:

According to the latest species list from the U. S. Fish and Wildlife Service (<http://mountain-prairie.fws.gov/endspp/CountyLists/COLORADO.pdf>), the following Federally listed, proposed, or candidate plant and animal species may occur within or be impacted by actions occurring in Eagle County: Black-footed ferret (*Mustela nigripes*), Canada lynx (*Lynx canadensis*), Mexican spotted owl (*Strix occidentalis*), yellow-billed cuckoo (*Coccyzus americanus*), Uncompahgre fritillary butterfly (*Boloria acrocnema*), Ute ladies'-tresses orchid (*Spiranthes diluvialis*), razorback sucker (*Xyrauchen texanus*), Colorado pikeminnow (*Ptychocheilus lucius*), bonytail chub (*Gila elegans*), humpback chub (*Gila cypha*), and Greenback cutthroat trout (*Oncorhynchus clarkii stomias*).

Habitat for the Ute ladies'-tresses orchid includes seasonally flooded river terraces, subirrigated or spring-fed abandoned stream channels and lakeshores, which support herbaceous riparian vegetation. Neither the Sky Legend area nor most of the Gypsum Campground provide potential habitat for the Ute ladies' tresses orchid. The riparian habitat along the western and southern edge of the Gypsum Campground provides some potential habitat for the orchid. However, the river banks adjacent to the Gypsum Campground are too steep to allow seasonal flooding of the river terraces, therefore, the site is not considered suitable habitat for this species.

#### BLM Sensitive Species:

The BLM sensitive plant species, Harrington's penstemon (*Penstemon harringtonii*), is known to occur one-half mile west of the Sky Legend project area. This species is found in open sagebrush communities or sagebrush/mixed mountain shrub communities. This species is not known to occur in mature pinyon-juniper woodlands as in the Sky Legend project or in dense Basin big sagebrush stands such as those found at the Gypsum Campground. Known occurrences of this plant are uphill of these projects and should not be directly or indirectly impacted by the proposed action.

The Eagle River located adjacent to the Gypsum Campground treatment area contains bluehead and flannelmouth suckers both BLM sensitive fish species.

#### Environmental Consequences:

##### *Proposed Action:*

##### Listed, Proposed, Candidate Species:

Due to the absence of occupied or suitable habitat for the Ute ladies'-tresses orchid within the vicinity of these two projects, the proposed action would have **"No Effect"** on this threatened plant species.

##### BLM Sensitive Species:

Due to the absence of any known occupied or suitable habitat for BLM sensitive plant species in the project area, the proposed action would have **no impact** on these species.

The proposed action calls for the clearing of brush and some trees around and within the BLM's Gypsum Campground and adjacent to Sky Legend subdivision. The Gypsum Campground site adjacent to the Eagle River is already disturbed as roads and campsites have been in place for years. The treatments proposed would avoid riparian vegetation and would result in little if any new ground disturbance. Given the proximity of the river to the treatment area, it is possible that small amounts of additional sediment could enter the river. The bluehead and flannelmouth suckers are well adapted to the high sediment loads periodically carried by the Eagle River and rely on periodic influxes of sediment to create and maintain important micro habitat components. Aggressive weed treatments as proposed should help to minimize the spread of noxious weeds and help to maintain riparian condition and maintain bank stability. The proposed action should have little impact to these native fishes or their habitat.

*No Action Alternative:*

Under the No Action alternative, no fuel treatment would be conducted. There would be no negative impacts to any special status plant, fish, or wildlife species.

Analysis on the Public Land Health Standard for Special Status Species:

The Eagle River and Gypsum Creek were also not meeting Standard 4 for aquatic wildlife. This is because both waters do not currently contain native Colorado River cutthroat trout but instead contain non-native trout species. Given their current potential, stream habitats are capable of supporting native trout, but management of these species is out of the BLM's control.

The proposed actions should have little bearing on the area's ability to meet Standard 4.

**Wastes, Hazardous or Solid**

Affected Environment: Implementation of the proposed activities would require the use of fuel and lubricants to operate mechanical equipment, chainsaws, and vehicles for transportation. In addition, herbicides would be used to treat noxious weeds within the two units. The Gypsum Campground Unit is in close proximity to the Eagle River while the Sky Legend Unit contains several unnamed ephemeral tributaries to the perennial Gypsum Creek to the east.

*Proposed Action:*

Environmental Consequences/Mitigation: As mentioned above, the Gypsum Campground Unit is adjacent to the Eagle River while the Sky Legend Unit contains several ephemeral drainages to Gypsum Creek. In the event of a spill, there is potential that hazardous wastes could reach area drainages if proper clean-up doesn't occur prior to run-off events. To avoid these potential threats, fuel and lubricants would be stored in appropriate containers and refueling would occur in designated areas. In addition, proposed activities would avoid steep slopes and drainages to minimize the potential for contaminant transport to perennial streams and other negative impacts associated with spills and contaminant distribution. Based on existing slope angles and good vegetative cover; it is unlikely that fuels, lubricants, or herbicides would be transported to area drainages. However, it is recommended that appropriate and timely clean-up procedures do occur in the event of a spill to avoid the likelihood of contaminant transport during runoff events.

*No Action Alternative:*

Environmental Consequences: Under the no action alternative there would be no fuel or lubricants present associated with vehicles and equipments and herbicide application would not occur.

**Water Quality, Surface and Ground (includes an analysis of Public Land Health Standard 5)**

Affected Environment: The Gypsum Campground Unit would be located west of the Town of Gypsum, south of Interstate 70, and north of the Eagle River within the 10,347 acre Eagle River above Dotsero 6<sup>th</sup> field watershed. The Sky Legend Unit would be located southeast of the

Town of Gypsum, south of the Colorado River and Interstate 70, and west of the perennial Gypsum Creek within the 11,736 acre Lower Gypsum Creek 6<sup>th</sup> field watershed. The Gypsum Campground Unit is located adjacent to the Eagle River while the Sky Legend Unit contains several unnamed ephemeral tributaries to the perennial Gypsum Creek to the east.

The State of Colorado has developed a *Stream Classifications and Water Quality Standards* (CDPHE, Water Quality Control Commission, Regulation No. 33) list that identifies beneficial uses of water and numeric standards used to determine allowable concentrations of water quality parameters. The Eagle River is within the Eagle River Basin segment 9b that includes the mainstem of the Eagle River from a point immediately below the confluence with Rube Creek to the confluence with the Colorado River and Gypsum Creek is within segment 10a that includes all tributaries to the Eagle River from a point immediately below the confluence with Lake Creek to the confluence with the Colorado River. Both of these segments are classified as aquatic life cold 1, recreation E, water supply, and agriculture. Aquatic life cold 1 indicates that this water course is capable of sustaining a wide variety of cold water biota. Recreation class E refers to waters in which primary contact recreation is presumed to be present. In addition, these waters are suitable or intended to become suitable for potable water supplies and agricultural purposes that include irrigation and livestock use.

The Eagle River and Gypsum Creek are not currently listed on the State of Colorado's *303(d) List of Water Quality Limited Segments Requiring TMDLS* (CDPHE, Water Quality Control Commission, Regulation No. 93) or the *Monitoring and Evaluation List* (CDPHE, Water Quality Control Commission, Regulation No. 94) as waterbodies suspected to have water quality problems. The USGS operates three area gauging stations that collect limited water quality data parameters that include temperature, discharge, and specific conductance. The three sites are: Eagle River at Gypsum (09069000), Gypsum Creek near Gypsum (09069500), and Eagle River below Gypsum (09070000); and the data can be found at <http://waterdata.usgs.gov/co/nwis/dv/>.

*Proposed Action:*

Environmental Consequences/Mitigation: Proposed treatment activities would remove some vegetation and could alter soil conditions through compaction, displacement, and the development of a hydrophobic soil layer associated with mechanical treatments, foot traffic, and burning activities. These impacts would result in an increase in erosion potential, possible offsite sedimentation, and potential nutrient loading in area waterbodies. Additionally, there is a potential for contaminants associated with fuel and lubricant spills to reach area drainages.

Soil compaction and displacement are expected to be minimal due to the amount of rock present in the substrate, the use of small vehicles and some operations occurring over scattered slash material. Additionally, proposed activities would avoid steep slopes and drainages. During pile burning activities, hydrophobic soil layers could result directly under piles but these areas would likely be small in scale. Based on the distance of the proposed activities from area drainages, the existing slope angle, and good vegetative cover; it is unlikely that sediment, contaminants, and nutrients would be transported to area waterbodies. As a result, no site specific mitigation is being recommended at this time besides basic BMPs associated with mechanical and hand treatments, pile burning, and following the burn plan. Any potential negative impacts to water

quality would be short duration and very localized, making the likelihood of measureable water quality degradation minimal.

*No Action Alternative:*

Environmental Consequences: Under the no action alternative, no fuels reduction activities would occur which could leave the area susceptible to possible wildfire hazard in the future. In the event of a wildfire, potential negative impacts associated with denuded groundcover, hydrophobic soils, and sediment transport would be much greater than negative impacts associated with the proposed activities. In addition, the potential for nutrient loading in the nearby Eagle River and Gypsum Creek would be much greater in the event of a wildfire.

Analysis on the Public Land Health Standard for Water Quality: The Gypsum Campground Unit would be within the Eagle River North Watershed landscape that had area drainages evaluated by the BLM Glenwood Springs Field Office in 2003 as part of the Eagle River North Watershed Land Health Assessment. The Sky Legend Unit would be within the Eagle River South Watershed landscape that had area drainages evaluated by the BLM Glenwood Springs Field Office in 2002 as part of the Eagle River South Watershed Land Health Assessment. During both assessments, the BLM determined that state water quality standards were not being violated by area drainages. Based on the findings from the land health assessments and the above analysis, the proposed action and no action alternative would not likely prevent Standard 5 for Water Quality from being achieved.

**Other Affected Resources**

In addition to the critical elements, the resources presented in Table 3 were considered for impact analysis relative to the proposed action and no action alternative. Resources that would be affected by the proposed action and no action alternative are discussed below.

<b>Table 3. Other Resources Considered in the Analysis.</b>			
<i>Resource</i>	<i>NA or Not Present</i>	<i>Present and Not Affected</i>	<i>Present and Affected</i>
Access and Transportation		X	
Cadastral Survey			
Fire/Fuels Management			X
Forest Management			
Geology and Minerals	X		
Law Enforcement			
Paleontology	X		
Noise	X		
Range Management		X	
Realty Authorizations			
Recreation			X
Socio-Economics			
Soils*			X

Vegetation*			X
Visual Resources			X
Wildlife, Aquatic*			X
Wildlife, Terrestrial*			X

\* Public Land Health Standard

## **Fire and Fuels**

### Affected Environment:

The project area has high fuel loadings, high recreation visitor use, and houses located in close proximity to boundaries. This in conjunction with a moderate fire occurrence and high risk rating for threat of wildland fire provide the need for action within the units. Fire behavior could be modified from an expected crown fire to a ground fire where emergency personnel would be given the chance to catch a fire before it became a major threat to adjacent communities. Fire fighter and public safety could be increased in the event of an unplanned wildfire within the units.

### *Proposed Action:*

Implementation of the proposed action would lower the risk of a large-scale, high severity wildfire event occurring in the project area. The fire behavior in these units would decrease by the canopy being broken up and the different age classes being produced.

### Environmental Consequences:

#### *No Action Alternative:*

Under this alternative no fuels treatments would occur. Fuel loading would continue to increase, thus increasing the threat of a stand replacing fire. A wildland fire in these units with the existing fuel loads would have a high probability of being stand replacing. Severe wildfires damage soils, watersheds, critical wildlife habitat, and other infrastructure. Firefighters would be placed at risk as fuel loads are high and subsequent fire behavior increased.

## **Recreation:**

### Affected Environment:

The proposed action within Sky Legend occurs within the lands that are part of the Glenwood Springs extensive recreation management area (ERMA) where management is for dispersed/undirected recreation activities. The RMP does not have any specific, measurable or targeted recreation management objectives for ERMAs. However, the RMP provided a general overview of appropriate experience and activity opportunities that occur by adopted Recreation Opportunity Spectrum (ROS) class. For the Sky Legend area, the RMP direction was to generally maintain a roaded-natural setting for the physical, social and administrative setting characteristics for a variety of experience and activity opportunities. Current uses within the

project area include; motorized and mechanized activities, hiking, hunting, and horseback riding. Most visitors are those who want a close to home place to exercise and recreate.

The proposed project within the Gypsum Campground occurs within a site that was originally developed in the 1980's, is currently a fee site that is managed for overnight camping and day use from April 15<sup>th</sup> thru November 15<sup>th</sup> annually. The campground has 8 developed overnight sites with fire rings along the eastern loop and 2 picnic sites among the cottonwoods in the western portion of the recreation site. A variety of activities occur within the campground including; camping, hiking, dog walking, bike riding (on trail running adjacent to the campground), fishing, wildlife viewing, community partying/group gathering, and picnicking. The RMP direction was mapped as Urban with the prescriptions for associated settings for the physical, social and administrative setting characteristics and associated experiences and activities related to a developed site. Most visitors to the campground are from Colorado, some visitors camping will try to find work, and/or out of state folks who are passing through or visiting the adjacent destination tourism areas of Vail or Aspen. Most visitors utilizing the day-use area are from adjacent neighborhood or town of Gypsum. Large groups and family gatherings/picnics/parties occur on a frequent basis in the day use area under the trees. vegetation

#### **Environmental Consequences:**

The proposed action will not necessarily change the variety of experiences and or targeted activity opportunities that occur or that are appropriate on public lands within an ERMA or a developed campground. However the project will enhance public safety, especially within the campground. The proposed action would meet the BLM's overall objectives relating to public safety within developed recreation sites. Long term benefits to both campground visitors and nearby residents would result from removing and decreasing vegetative fuel loads within the campground thereby reducing chances for an escaped wildfire. In addition the removal of hazard trees within the day use area will greatly enhance public safety for those visitors who are attracted to sites only shade.

The proposed actions could shift visitor use patterns place during short term due to project activities (cutting, spraying, etc.) and related noise and or presence of workers. Impacts to visitors within the Sky legend project area would be minor depending on timing of implementation. Impacts to campers and picnickers at the Gypsum campground would be more direct, while short term could affect their experience and desirability to stay there. Through the attached mitigation, impacts to recreational visitors in both areas would be reduced and acceptable based on the expected implementation time frame and short duration of disturbance to visitors experiences. Human health and safety concerns would also be addressed through the following mitigation measures.

Mitigation: In order to minimize impacts to visitors at both project areas "Public Notices" should be posted by fuels crews at all main access and entry areas. Notices must include when the project is occurring (starting and end date), why the project is being done, who is doing it, where (map), what exactly is being done. All treatments including herbicide use for noxious weeds, should also post notices with the above information including specific precautions and or closure periods. Projects should not be scheduled for implementation during high use periods

which would include holiday weekends at the Gypsum Campground. All cleared vegetation should be hauled from the Gypsum Campground so as not to create an attractive nuisance to burn large logs or piles of dead vegetation.

*No Action Alternative:*

Environmental Consequences: The no action alternative would change recreation opportunities within the Sky Legend ERMA. However, the recreation objectives within the Gypsum Campground would not be accomplished. While some vegetation clearing would occur on brush adjacent to fire rings, a more comprehensive fuels project would not occur and could result in an larger scale escaped fire within the campground and/or on adjacent lands.

**Soils (includes analysis of Public Land Health Standard 1)**

Affected Environment: According to the *Soil Survey of Aspen-Gypsum Area, Colorado: Parts of Eagle, Garfield, and Pitkin Counties* (USDA 1992), the Gypsum Campground Unit would be located on two soil map units (32, 115) and the Sky Legend Unit would be located on three soil map units (33, 50, 98) which can be identified by the numerical code assigned by the soil survey. These soil map units are described as having slight to severe water erosion hazard ratings and the majority of activities would occur on slopes less than 30%. Following is a brief description of the five soil map units encountered in the proposed treatment units.

- Dotsero sandy loam (32) – This deep, well drained soil is found on terraces, side slopes, and benches at elevations from 6,300 to 7,200 feet and on slopes of 1 to 12 percent. It is derived primarily from redbed sandstone and shale alluvium. Surface runoff for this soil is slow and the water erosion hazard is moderate. Primary uses for this soil include irrigated crops, hayland, and livestock grazing.
- Earsman-Rock outcrop complex (33) – This soil map unit is found on mountainsides and ridges at elevations ranging from 6,000 to 8,500 feet and on slopes of 12 to 65 percent. Approximately 45 percent of this unit is Earsman very stony sandy loam and 35 percent Rock outcrop. The Earsman soil is shallow, excessively drained, and derived from calcareous redbed sandstone. Surface runoff for this soil map unit is rapid and the water erosion hazard is classified as slight to severe depending on slope. Primary uses for this soil map unit include rangeland, wildlife habitat, fence posts, and firewood.
- Goslin fine sandy loam (50) – This deep, well drained soil is found on toe slopes, fans, and terraces at elevations ranging from 6,200 to 7,500 feet and on slopes of 6 to 25 percent. Parent material for this soil includes redbed sandstone and shale alluvium and colluvium. Surface runoff for this soil is medium and the water erosion hazard is classified as moderate. Primary uses for this soil include livestock grazing, hay production, and urban development.
- Southface cobbly sandy loam (98) – This deep, well drained soil is found on upland terraces, mountainsides, valley sides, and alluvial fans at elevations ranging from 6,000 to 7,000 feet and on slopes of 12 to 25 percent. It is derived from colluvium and alluvium

composed of redbed sandstone and shale intermixed with gypsiferous material. Surface runoff is rapid and the water erosion hazard is moderate. Primary uses for this soil include wildlife habitat and rangeland.

- Yamo loam (115) – This deep, well drained soil is found on fans and toe slopes at elevations ranging from 6,200 to 7,500 feet and on slopes of 6 to 12 percent. This soil is derived primarily from sandstone, shale, and gypsum colluviums. Surface runoff for this soil is medium and the water erosion hazard is slight. Primary uses for this soil include rangeland, hayland, pasture, and homesite development.

*Proposed Action:*

Environmental Consequences/Mitigation: Proposed treatment activities would remove some vegetation and could alter soil conditions through compaction, displacement, and the development of a hydrophobic soil layer associated with mechanical treatments, foot traffic, and burning activities. These impacts could result in an increase in erosion potential, possible offsite sedimentation, and potential nutrient loading in area drainages. Soil compaction and displacement are expected to be minimal due to the amount of rock present in the substrate, the use of small vehicles and some operations occurring over scattered slash material. Additionally, proposed activities would avoid steep slopes and area waterbodies.

Small areas of hydrophobic soil layers could result directly underneath piles, but overall would account for a small percentage of the proposed unit. Based on the slope angles, vegetative cover, and existing soil types; no mitigation is being recommended at this time besides basic BMPs associated with mechanical and hand treatments, pile burning, and following the burn plan. Any potential negative impacts to soil resources would be short duration and very localized.

*No Action Alternative:*

Environmental Consequences: Under the no action alternative, no fuels reduction activities would occur which could leave the area susceptible to possible wildfire hazard in the future. In the event of a wildfire, potential negative impacts associated with denuded groundcover, hydrophobic soils, and sediment transport would be much greater than negative impacts associated with the proposed activities.

Analysis on the Public Land Health Standard for Upland Soils: The Gypsum Campground Unit would be located within the Blowout Allotment that had soil conditions evaluated by the BLM Glenwood Springs Field Office in 2003 as part of the Eagle River North Watershed Land Health Assessment. The Sky Legend Unit would be located within the Red Hill Allotment that had area drainages evaluated by the BLM Glenwood Springs Field Office in 2002 as part of the Eagle River South Watershed Land Health Assessment. During both assessments, the BLM determined that the allotments were achieving or moving towards achieving standards for soils. Based on the findings from the land health assessments and the above analysis, the proposed action and no action alternative would not likely prevent Standard 1 for Upland Soils from being achieved.

**Vegetation (includes an analysis of Public Land Health Standard 3)**

Affected Environment:

Vegetation within the Sky Legend project area consists of mature pinyon/juniper woodlands on south-facing slopes, Gambel oak/mixed mountain shrubs with some pinyon-juniper on north-facing slopes and big sagebrush on the gentler slopes along drainages. The Gypsum Campground consists primarily of Basin big sagebrush/rubber rabbitbrush with cheatgrass and some perennial grasses in the understory. The western and southern edge of the campground supports a narrowleaf cottonwood gallery with willows and herbaceous species in the understory. Noxious weeds are scattered throughout the campground area.

Environmental Consequences:

*Proposed Action:*

Under the proposed action, thinning of trees and shrubs would occur on a total of 65 acres within the two treatment units. Most of the vegetative material will be removed via hand crews with chainsaws or with minimal ground disturbance which should minimize the risk of cheatgrass expansion. The project would increase the structural diversity in the area by removing mature pinyon-juniper and sagebrush. Residual grasses and some of the forbs should be positively impacted and increase in production, cover and composition once they are released from competition with pinyon-juniper or sagebrush. According to the proposed action, approximately 50-70% of the downed and dead material would be piled and burned. Removal or burning of dead and downed trees and shrubs will result in less woody material to decompose slowly and replenish soil organic matter.

**Mitigation:** In order to provide for wildlife habitat and long-term nutrient cycling, the proposed actions should leave at least 30-50% of the dead and downed woody material on site.

*No Action Alternative:* The No Action alternative would not create any direct impacts to vegetation communities. Pinyon-juniper woodlands, big sagebrush, mixed mountain shrub vegetation would continue to remain dense and tall, creating fuel conditions conducive to a catastrophic fire.

Analysis on the Public Land Health Standard for Plant and Animal Communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)

For the most part, the Red Hill allotment, which encompasses the Sky Legend project, and the Blowout allotment, which includes the Gypsum Campground, were meeting Standard 3 for plant communities. Overall, vegetation was in fair to good condition. However, certain concerns were raised regarding pinyon-juniper encroachment into sagebrush sites and the fact that cheatgrass dominates the understory in several low-elevation sagebrush sites and poses a risk of expansion following fire or other disturbances. If wildfire sweeps through the area, cheatgrass is likely to become the dominant vegetation across much of the burned area. The proposed action is designed to reduce fuel loading and thereby reduce the risk of wildfire. Most of the vegetative material will be removed by hand or with minimal ground disturbance which should minimize the risk of cheatgrass expansion. The project would also increase the structural diversity in the area by removing mature pinyon-juniper and sagebrush and allowing herbaceous vegetation to increase. The proposed action would maintain or improve land health conditions on a localized basis.

## Visual Resources

### Affected Environment:

Proposed Action: The proposed project area for Sky Legend is located in an area classified as Visual Resource Management Class (VRM) Class II and the Gypsum Campground is within a VRM Class III. VRM classes were allocated in the GSRA 1984 Resource Management Plan. The objective of VRM Class II is to retain the existing characteristic landscape. The level of change in any of the basic landscape elements (line, form, color, texture) due to management activities should be low and not evident.

VRM Class III's objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Both of these project areas are directly adjacent to the town of Gypsum and to Interstate 70. Scenic quality and the preserving the natural beauty and landscape have been identified as a high priority to Eagle County residents (*Eagle County Quality of Place Survey, November 2007, Research and Polling Inc.*). Interstate 70 has been identified as a transportation corridor with high sensitivity.

The Key Observation Point (KOP) used for the Sky Legend project analysis was west bound Eagle County Road 102. While this KOP is approximately 2 miles away, it provides an elevated a direct line of sight of the project area. The Sky Legend project area is comprised of rolling topography covered in mature pinyon/juniper woodlands on south-facing slopes, Gambel oak/mixed mountain shrubs with some pinyon-juniper on north-facing slopes and big sagebrush on the gentler slopes along drainages. A water tank and associated access road exists in the northern portion of the project area. The remaining project area landscape character is relatively intact and natural appearing. Typical disturbances and landscape modifications relating to urban development exist on adjacent private lands to the east.

KOP used for analyzing the Gypsum Campground proposal will be I-70. The Gypsum Campground is located in river valley bottom on relatively flat ground directly adjacent to the Eagle River. The landscape has numerous modifications related to the campground developments and subsequent vegetation clearings and structures. Two graveled loop roads, 8 campsites, and 1 restroom have modified the natural landscape and have created contrasts in color, line, form and texture. While these modifications do not dominate the landscape they are noticeable from I-70. The vegetation consists primarily of Basin big sagebrush/rubber rabbitbrush with cheatgrass and some perennial grasses in the understory. The western and southern edge of the campground consists of cottonwoods, willows and herbaceous species in the understory. Noxious weeds are scattered throughout the campground area. A frontage road runs parallel to the interstate, a bike trail runs south and parallel to the frontage road, private lands to the east are have undergone a high degree of modifications typical to urban development and lands to the west are public lands that have not modified and have retained its natural appearance.

### Environmental Consequences:

The Sky Legend proposed action would make weak/minor contrasts to the existing landscapes form, line, color and texture. While some minor short term contrasts (form, color) would be

introduced into the landscape with the burn piles, the effects will be localized and would be viewed for a relatively small period of time. The proposed action involving the removal and thinning of vegetation to open the canopy and to reduce ladder fuels would create negligible differences in the overall landscapes form, line, color, and texture. The long term contrast rating process shows that with inclusion of design and mitigation measures to hand cut to thin and remove vegetation “with irregular and mosaic patterns to avoid creating straight lines and square corners” no new contrast would be introduced or long term impacts. Therefore the proposed action meets the objective of VRM Class II in maintaining the existing landscape character.

Mitigation: Due to design measures and mitigation incorporated into the proposed action, no additional mitigation is proposed for the Sky Legends portion of the project.

The Gypsum Campground proposed action would create weak to moderate contrasts to form, texture, and color within the existing landscape during the short term. Impacts from mechanical treatment could be more evident within the landscape without careful implementation. Regardless of the method, with the implementation of the specific vegetation manipulation plan, and mitigation measures incorporated into the proposed action, long term contrasts to the existing landscape would be reduced. While the removal of vegetation removes landscape elements within the landscape, the remaining vegetation maintains the natural appearance of the overall landscape character. The overall objective of the site specific vegetation manipulation plan is to create natural appearing openings, to continue to provide some screening between sites for visitors, and to eliminate large connected pockets of fuels.

It is expected that with site specific modifications or changes during initial implementation the creation of additional contrasts within the landscape will meet the objectives of VRM Class III as seen from the KOP (I-70).

Mitigation: The proposed action for the Gypsum Campground must follow the vegetation manipulation plan specific to the Gypsum Campground. Regardless of the method, the implementation of the vegetation manipulation plan for Gypsum Campground should be monitored by a GSFO recreation planner or landscape architect during initial project interpretation and layout on the ground, and during the first stages of implementation of vegetation removal to ensure the on- the- ground work meets the intent and overall objective of plan.

No Action Alternative:

Environmental Consequences: The existing natural landscape would be maintained and VRM Class II objectives would be met within the Sky Legend portion of the project. 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.

While the no action would result in no fuel reductions or treatments on public lands, some vegetation clearing would be done on vegetation directly adjacent to some camp and day use sites fire rings and as part of ongoing annual maintenance. This alternative however, would not treat the whole campground comprehensively and therefore could potentially leave large connected fuel sources that could threaten adjacent private subdivision and slick off all the vegetation creating large contrast in the visual landscape. In addition the dense vegetation surrounding the “day use’ loop area on the west side of the campground would be more at risk to a catastrophic burn that could lead to a large loss of the existing vegetation and subsequent changes in landscape character.

## **Wildlife, Aquatic (includes an analysis of Public Land Health Standard 3)**

### Affected Environment:

The Gypsum Campground project parcel is located directly adjacent to the Eagle River. The Eagle River in this area contains rainbow and brown trout, suckers, speckled dace, and mottled sculpin, and aquatic insects. The Sky Legend parcel contains no perennial streams and is drained via small ephemeral drainages that feed directly into Gypsum Creek located approximately 0.25 to 0.70 miles to the east of the project boundary. Gypsum Creek contains rainbow, brown, and brook trout, mottled sculpin, and aquatic insects.

### Environmental Consequences:

#### *Proposed Action:*

Under the proposed action, hand and limited mechanical thinning of vegetation primarily trees and shrubs would occur within the two treatment units. Most work would be via hand crews on foot with chainsaws. Ground disturbance should be minimal but some soil disturbance could result from proposed activities. It is possible that the project could result in some site specific soil compaction and displacement and increase the likelihood of erosional processes, especially on steep slopes, areas devoid of vegetation. Soil detachment and sediment transport are likely to occur during runoff events associated with spring snowmelt and short-duration high intensity thunderstorms. Due to the close proximity of the proposed activities to area drainages, there is potential that additional sediment associated with implementation of proposed treatments could reach the Eagle River and Gypsum Creek.

Sediment can impact trout and sculpin by silting in important spawning substrates and smothering eggs which can lead to reduced productivity. Excessive sediment can also fill in pools reducing their depth and usability during critical summer and winter periods when they are important as thermal refuge areas. Aquatic insect productivity can be impaired as sediment covers clean gravels and cobbles needed by these insects. This can reduce food sources for fish and terrestrial bird and bat species.

Although slight increases in sediment could result from the project, understory vegetation should largely remain intact and help to stabilize soils. Residual litter from the treatments would also help protect soils post treatment. It is anticipated that as trees and shrubs are reduced, an increase in understory grasses and forbs should result rather quickly which would further minimize soil movement concerns. The proposed treatments should have minimal impact on resident fish species in the area.

#### *No Action Alternative:*

Under the No Action alternative, no fuel treatments would be conducted. No impacts to aquatic wildlife would result. However, it is possible that the lack of treatment of these sites could result in catastrophic wildfire in the future. While unpredictable, the results of a catastrophic wildfire in these areas could have adverse impacts to nearby streams and rivers and aquatic wildlife due to post fire ash, sediment, and debris flows.

### Analysis on the Public Land Health Standard 3 for Plant and Animal Communities

A formal Land Health Assessment was completed for this area back in 2002 with the report completed in 2003. At that time the Eagle River and Gypsum Creek were meeting Standard 3 for aquatic wildlife. The proposed actions should have little bearing on the areas ability to continue to meet Standard 3 for aquatic wildlife.

### **Wildlife, Terrestrial (includes an analysis of Public Land Health Standard 3)**

Affected Environment: A variety of terrestrial wildlife species are found in the habitat and vegetation types described previously. Mammals such as mule deer, elk, black bear, and others typical of the area could occur occasionally or more frequently. Numerous species of birds, both migratory and non-migratory, also use these habitat types with regularity.

*Species of High Public Interest.* 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.

The Lower Colorado River Habitat Management Plan 2008-2012 indicates the 2006 post hunt elk population to be an estimated 5,950 within data analysis unit (DAU) E-16 (game management units 44,444, 45 and 47). The CDOW recommended population objective for elk is 6,000. As indicated the elk population is stable and meeting the population objectives set by the CDOW. CDOW recommended population objective for deer is 7,000. The 2006 post hunt population estimate was 10,160 deer in game management DAU D-14 (GMU 44). Currently the deer numbers are likely near the 7,000 deer population objective due to the locally severe winter of 2007-08.

#### Environmental Consequences:

##### *Proposed Action*

The total area to be treated is small – both treatment areas have a combined total of 65 acres – The treatments would not alter the overall current condition of the habitat for big game. Overall the amount of affected habitat, the relative abundance of pinyon-juniper habitats over the landscape reduces the chance of this project individually or cumulatively influencing terrestrial wildlife populations on a regional or landscape level. The majority of treatments would be conducted by hand with limited mechanical thinning thereby minimizing ground disturbance. Noise from chainsaws and heavy machines would likely displace terrestrial wildlife temporarily. However, mule deer have been observed browsing across recently treated areas within 100 feet of an active tracked mulcher/hydro-axe. Any disturbance related impacts would be temporary and inconsequential.

##### *No Action Alternative:*

Under the No Action alternative, no fuel treatments would be conducted. Therefore, no impacts to terrestrial wildlife species or their habitat are expected.

Analysis on the Public Land Health Standard for terrestrial animal communities (partial, see also Vegetation and Wildlife, Aquatic): There is no indication that native terrestrial wildlife populations are not spatially distributed across the landscape with a density, composition, and frequency of species suitable to ensure reproductive capability and sustainability. It is unlikely that the proposed action would have any large scale negative impacts to density, composition, and frequency of terrestrial species or terrestrial wildlife habitat. Based on the scale of the project, the LHA and the proposed action should have little bearing on the areas ability to meet, maintain, or move towards meeting Standard 3 for terrestrial wildlife.

**SUMMARY OF CUMULATIVE IMPACTS**

**PERSONS AND AGENCIES CONSULTED:**

**Dave Vroman, Fire Chief, Gypsum Fire Department**  
**Ross Wilmore, Fire Management Officer, UCRIFM East Zone**  
**Eric Lovegren, Wildfire Mitigation Specialist, Eagle County**  
**Barry Smith, Emergency Management Director, Eagle County**  
**Peter Hart, Conservation Analyst, Wilderness Workshop**  
**Maxine Natches, Chairperson, Uinta and Ouray Tribal Business Committee (Ute Tribe)**  
**Clement Frost, Chairman, Southern Ute Indian Tribe**  
**Judy Knight Frank, Chairperson, Ute Mountain Ute Tribe**

**INTERDISCIPLINARY REVIEW:**

<i>Name</i>	<i>Title</i>	<i>Responsibility</i>
Cheryl Harrison	Archaeologist	Cultural and Native American Concerns
Michael Kinser	Rangeland Management Specialist	Range Management, Wetlands & Riparian Zones
	Wildlife Biologist	Migratory Birds, Terrestrial Wildlife, T&E Wildlife
Carla DeYoung	Ecologist	ACEC, T/E/S Plants, Vegetation
Kay Hopkins	Outdoor Recreation Planner	VRM, WSR, Wilderness, Recreation, Transportation
Ody Anderson	Fuels Management Specialist	Fire/Fuels Management
Jeff O'Connell	Hydrologist	Soil, Air, Water, Geology
Brian Hopkins	Wildlife Biologist	Terrestrial Wildlife

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**REFERENCES:**

## FONSI

### DOI-BLM-CO--140-2009-0024-EA

The environmental assessment analyzing the environmental effects of the proposed action has been reviewed. The approved mitigation measures result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

#### DECISION RECORD

DECISION: It is my decision to approve and implement this proposed action with the mitigation measures listed below being taken into consideration.

RATIONALE: This proposed action will reduce fuel loading adjacent to private property. The proposed action will also reduce the risk of a wildfire burning from BLM administered land on to private property and improve safety to the public and firefighter in the event of a wildfire.

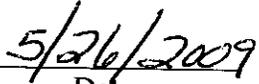
#### MITIGATION MEASURES:

- 1) A ¼ mile radius “no work zone” will be identified around any known cultural sites.
- 2) In order to provide wildlife habitat diversity and long-term nutrient cycling, the proposed actions should leave at least 30-50% of the dead and downed woody material on site. The material should be scattered across the units or piled well away from residences to minimize the risk of wildfire.
- 3) Hand tools and care is taken to cut only attached limbs and not limbs leaning into a tree to create a shelter, the potential of adverse impacts to undiscovered wickiups should be minimized.
- 4) Do not trample and or cutting trees/limbs that have nests
- 5) Avoid cutting dead standing trees to lessen impact to cavity nesting birds.
- 6) Post “public notice” at all access points of both units. Notices must include when the project is occurring (starting and end date), why the project is being done, who is doing it, where (map), what exactly is being done.
- 7) In Gypsum Campground Unit follow vegetation manipulation plan presented by GSFO rec staff

NAME OF PREPARER: Alton Anderson

SIGNATURE OF AUTHORIZED OFFICIAL:

  
Authorized Officer

  
Date

### Education/Discovery Stipulation

All persons in the area who are associated with this project must be informed that if anyone is found disturbing historic, archaeological, or scientific resources, including collecting artifacts, the person or persons will be subject to prosecution.

Pursuant to 43CFR10.4(g), the BLM authorized officer must be notified, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43CFR10.4 (c) and (d), activities must stop in the vicinity of the discovery and the discovery must be protected for 30 days or until notified to proceed by the authorized officer.

If in connection with operations under this contract the project proponent, his contractors, subcontractors, or the employees of any of them, discovers, encounters or becomes aware of any objects or sites of cultural or paleontological value or scientific interest such as historic or prehistoric ruins, graves or grave markers, fossils, or artifacts, the proponent shall immediately suspend all operations in the vicinity of the cultural or paleontological resource and shall notify the BLM authorized officer of the findings (16 U.S.C. 470h-3, 36CFR800.112). Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer. Approval to proceed will be based upon evaluation of the resource. Evaluation shall be by a qualified professional selected by the authorized officer from a federal agency insofar as practicable. When not practicable, the holder shall bear the cost of the services of a non-federal professional.

Within five working days the authorized officer will inform the holder as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the holder will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
- a time frame for the authorized officer to complete an expedited review under 36CFR800.11, or any agreements in lieu thereof, to confirm through the State Historic Preservation Officer that the findings of the authorized officer are correct and the mitigation is appropriate.

The proponent may relocate activities to avoid the expense of mitigation and/or the delays associated with this process, as long as the new area has been appropriately cleared of resources and the exposed materials are recorded and stabilized. Otherwise, the proponent will be responsible for mitigation costs. The authorized officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the authorized officer that the required mitigation has been completed, the proponent will then be allowed to resume construction.

Antiquities, historic ruins, prehistoric ruins, paleontological or objects of scientific interest that are outside of the authorization boundaries but directly associated with the impacted resource will also be included in this evaluation and/or mitigation.

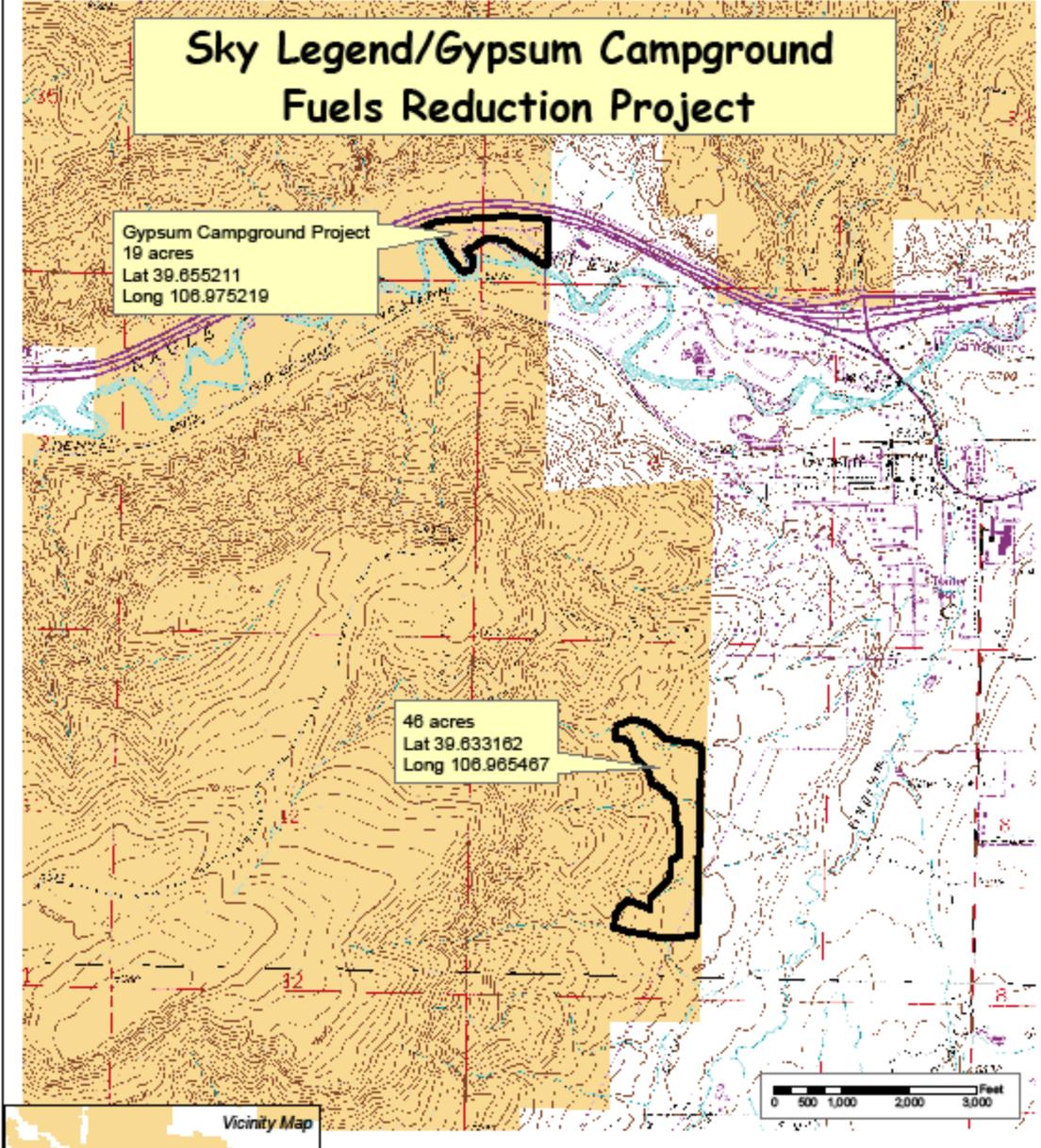
Antiquities, historic ruins, prehistoric ruins, paleontological or objects of scientific interest, identified or unidentified, that are outside of the authorization and not associated with the

resource within the authorization will also be protected. Impacts that occur to such resources, that are related to the authorizations activities, will be mitigated at the proponent's cost including the cost of consultation with Native American groups.

# Sky Legend/Gypsum Campground Fuels Reduction Project

Gypsum Campground Project  
19 acres  
Lat 39.855211  
Long 106.975219

48 acres  
Lat 39.633162  
Long 106.965467



- Legend**
- Project Boundaries
  - BLM Land
  - Private Land



Bureau of Land Management - UCRIFMU, 2815 H Road, Grand Junction, CO 81508 11/13/08  
Data Source: T:\gwork\proj\fuel\fuels\_reduction\east\_zone  
sky\_legend\sky\_legend\_gypsum\_cg\_project\_map.mxd

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## Appendix