

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

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**Environmental Assessment**

**DOI-BLM-CO-S050-2014-0012 EA**

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**June 2014**

**Davis-Sandburg Maintenance Slashing Project**

*Location: Montrose County, approximately 15 miles west of the town of Olathe, CO.*

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**U.S. Department of the Interior  
Bureau of Land Management  
Uncompahgre Field Office  
2465 South Townsend Avenue  
Montrose, CO 81401  
Phone: (970) 240-5300**



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## **ENVIRONMENTAL ASSESSMENT**

NUMBER: DOI-BLM-CO-S050-2014-0012 EA

PROJECT NAME: Davis-Sandburg Maintenance Slashing Project

LEGAL DESCRIPTION: T. 50 N., R. 12 W., sec. 19;  
T. 50 N., R. 13 W., sec. 23, sec. 24, sec. 25, sec. 26

APPLICANT: BLM

### INTRODUCTION and BACKGROUND

The Bureau of Land Management (BLM) Uncompahgre Field Office (UFO) has prepared this environmental assessment (EA) to disclose and analyze the environmental effects of maintaining past treatments. The proposed project would maintain a variety of age classes in the pinyon-juniper communities while reducing fuels build-up. The project would also provide openings in pinyon/juniper woodlands to increase the palatability of browse species and increase shrub, grass, and forb production.

The Davis-Sandburg Project Area is located in Montrose County, approximately 15 miles west of the town of Olathe, CO (see *Map 1, Davis-Sandburg Location*). This proposal addresses specific projects on approximately 417 acres.

The proposed slashing (removing small or other individual trees by hand) unit would re-treat an area that was chained in 1963 to reduce pinyon and juniper. Approximately 324 acres of the chaining was retreated in 2002 using a rollerchopper to maintain desired forage conditions. The rollerchop maintenance project was analyzed under the EA: Rollerchop Maintenance Projects - FY 2000, EA number CO-150-UB-00- 20 EA. Throughout the entire previously chained and rollerchopped treatment, young pinyon and juniper trees have been encroaching in areas of sagebrush parks. In areas that have not been treated since 1963, trees have grown up to 5 to 8 feet tall.

The project area is winter range habitat for mule deer and is severe winter range for elk, and also supports grazing for cattle. Within the project, the encroachment of pinyon and juniper in areas has continued to decrease palatable forage for these animals as well as increase the risk of catastrophic fire to this important habitat.

The National Fire Plan was completed in 2000 in an interagency effort after catastrophic fires damaged property and threatened life in several areas of the country. There are four primary aspects of the National Fire Plan: 1) To increase the ability to suppress wildfires by increasing the number and capability of suppression forces; 2) To reduce the risk of wildfire by reducing the hazardous fuels and supporting local community efforts and small rural fire departments; 3) To restore the health of natural ecosystems so that fire can act as a natural process without causing negative impacts; 4) To contribute to and involve local communities in this effort.

The proposed action to reduce fuels is in line with National Fire Plan goals and objectives and is being pursued by the BLM as a National Fire Plan effort. This fuel reduction project would reduce the risk of fire ignitions, would lower wildfire intensity, and would lower the risk of sustained crown fire.

The UFO Fire Management Plan identifies the resource objectives for Project Area to be the management of pinyon-juniper woodland with occasional large patches of grass or shrub vegetation (BLM 2002). It goes on to limit fuel reduction activities to less than 100 acres every three years.

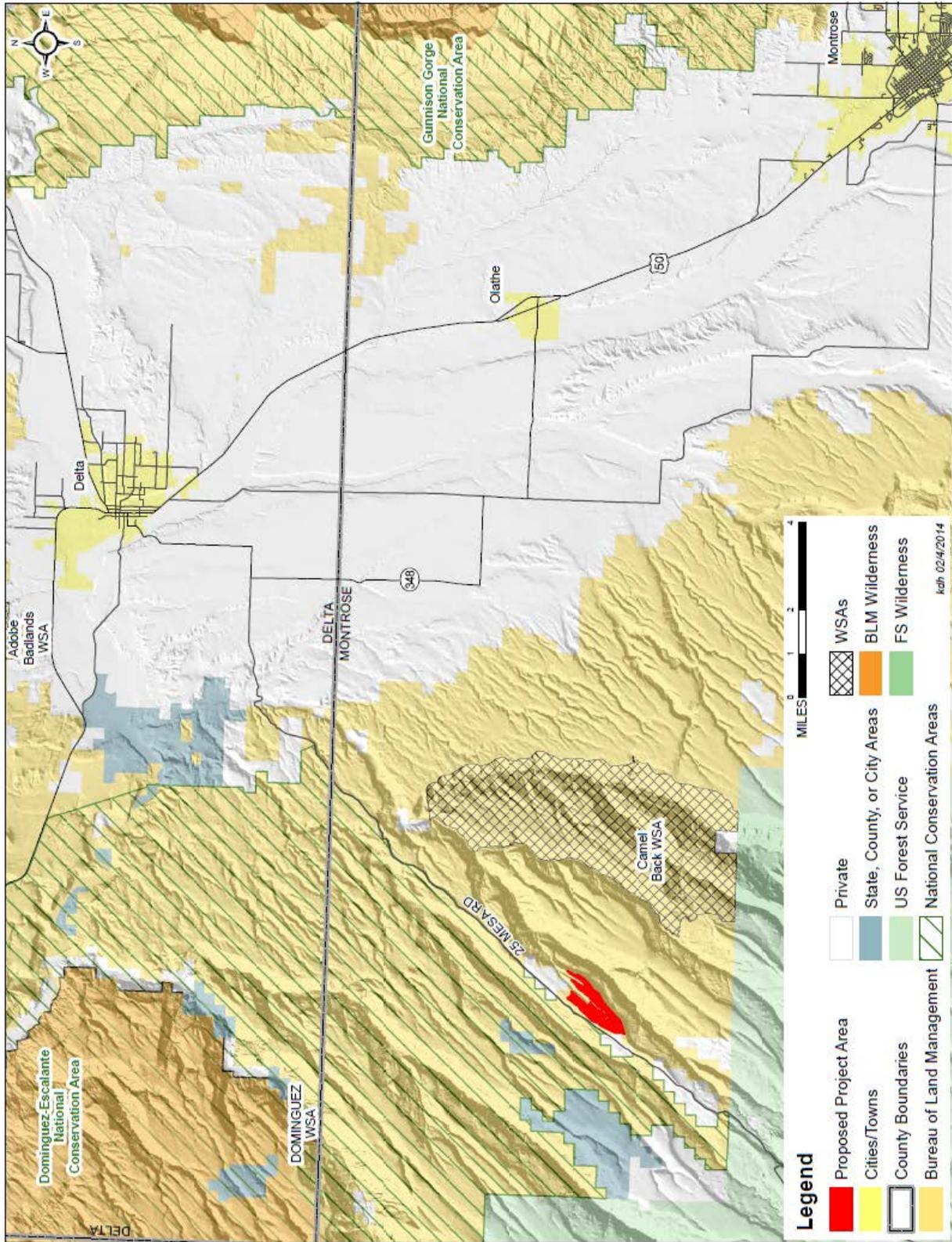
The results from the Uncompahgre Field Office (UFO) 2009-2010 Escalante Land Health Assessment (LHA) , within the project area, show pinyon-juniper invasion listed as "primary factors observed at problem sites," and as a result much of the area was classified as "meeting with problems" for LHA stands 3 (Native Communities) and 4 (Special Status Species). Remedies in the LHA recommend an increase in earlier seral stages on landscape through use of fire and mechanical treatments that revitalize shrubs. The proposed action would accomplish this objective.

#### PURPOSE AND NEED FOR THE ACTION

The purpose is to maintain a variety of age classes in the pinyon-juniper communities, reduce fuels build-up, increase the palatability of browse species, and increase shrub, grass, and forb production within the area chained in 1963. The need is to reduce the risk of wildfire, improve winter range forage for deer and elk, and maintain or achieve the public land health standards.

*Decision to be made:* Decide whether or not to approve the proposed action.

Map 1, Davis-Sandburg Location



## DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVE

### **Proposed Action:**

The proposed action is within an area of approximately 416 acres broken into two units in order to meet different objectives (see *Map 2, Davis-Sandburg Proposed Action*). The units are divided by the 2002 rollerchop treatment boundary. Unit 1 includes the chained area that was retreated in 2002 using a rollerchopper. Unit 2 is where the old chaining has not been retreated since 1963. Treatments would occur over a period of 10-15 years over the entire project area, not to exceed 100 acres per every 3 consecutive years.

#### *Unit 1 - 324 acres*

The goal of the 2002 rollerchop treatment was to create an early-mid seral vegetation stage across the unit in order to allow domination by sagebrush, grass, and forbs. Currently, areas within the 2002 rollerchop are being encroached with seedlings and saplings under 4 feet tall. Most of those trees would be targeted and slashed in this unit over the course of the project, favoring removal in remnant sagebrush parks. Slashing treatments would consist of a hand crew with chainsaws and/or other hand tools used to deliberately remove individual trees and scatter the slash within the unit boundary.

#### *Unit 2 – 92 acres*

The 2002 rollerchopping did not retreat this portion of the original chaining in order to provide for a more diverse age class mosaic across the mesa top. Encroaching trees within this unit have grown up to 5 to 8 feet tall, approaching late-mid seral stages. Most of these trees would be left uncut while allowing only occasional permitted use for the removal of Green, Non-Regulated forest products (e.g., Christmas trees). This unit would not be actively treated by BLM employees or contractors with the exception below.

Maintain an opening (clearing) of 40-50 feet surrounding a Fire Remote Automated Weather Station (RAWS) located within the project area. Trees and shrubs would be removed, leaving herbaceous vegetation. This is in accordance with the National Fire Danger Rating System guidelines, recommending a distance of 7 times the average height of obstructing vegetation (NWCG 2012).

### Design Features:

1. Treatments would only be implemented within an area that has a completed Cultural Resource Inventory. All sites identified and recorded would be avoided.
2. All vehicles and equipment would be clean and washed free of dirt and debris that could contain weed seeds.
3. Vehicles would travel only on designated routes; cross country travel is not allowed.
4. The presence of any heavy debris slash created by treatments would be kept off of designated routes.
5. Slash would be placed in runoff channels when appropriate to reduce runoff from site.
6. Seed thinned areas with a native seed mix where determined necessary, such as areas where an insufficient understory of native grass/forbs exists.

7. Fueling and maintenance activities would not take place within 100 feet of any drainage. All product containers (oil and hydraulic fluid cans, etc.) would be removed from the site and disposed of properly. Any spills, regardless of size, would be reported to the authorized officer and follow prescribe hazardous material protocol.
8. The BLM's Hazardous Material Coordinator would be contacted in the event there are any Hazardous Materials spills during project implementation, and hazardous materials would be cleaned up utilizing standard haz-mat procedures.
9. To protect wintering big game and crucial habitats, no surface disturbing activities shall occur from December 1 through April 30. Exceptions or variances to this restriction would be considered and evaluated by the BLM authorized officer.
10. The Public Land Survey System (PLSS) conditions in some of these areas are categorized as high risk according to the latest Geographic Coordinate Data Base (GCDB) listing. Federal surveys in this area were conducted prior to 1910 and are estimated to have boundary data with poor reliability. The GCDB coordinate reliabilities, and thus Geographic Information System (GIS) reliabilities, are in excess of 100 feet.

As directed in 43 CFR 3809.420(b)(9) and CRS 18-4-508, evidence of the PLSS and related Federal interest boundaries would be located and marked for protection prior to any ground-disturbing activity. The inadvertent destruction of these resources may adversely affect the management of Federal interest lands, the bona fide rights of landowners, and may be very costly and time-consuming to replace. The following items related to the protection of the PLSS would be evaluated by the BLM Cadastral Surveyor in coordination with the project manager:

- a. Evidence of the original survey should be located and marked for protection.
- b. Research should be conducted to identify local survey records that apply to the project area. Identified local survey evidence should be located and marked for protection.
- c. Boundaries of the project near private lands should be determined to avoid treatment on private lands.

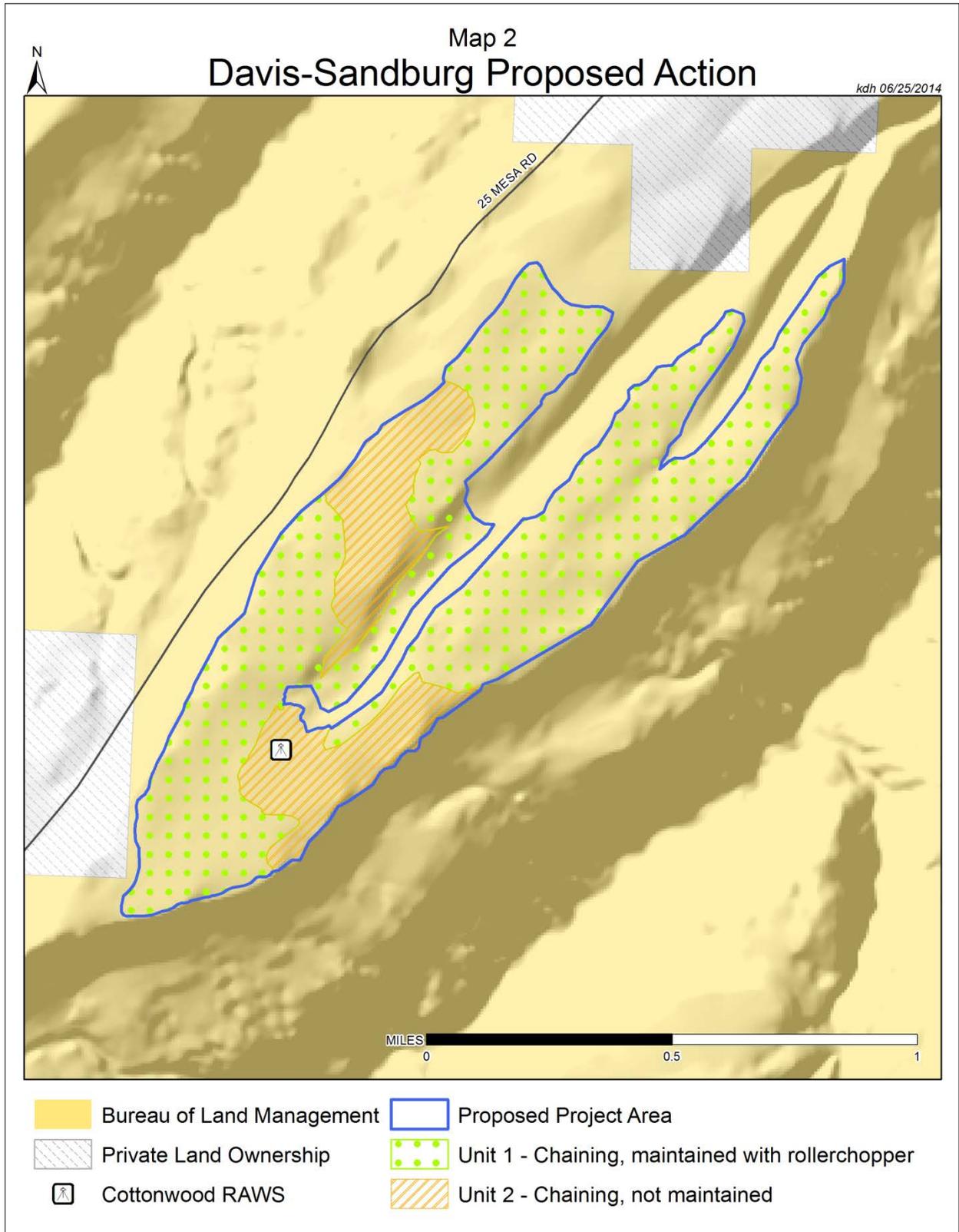
**Monitoring:**

- As project units are completed, and at the end of each year work is implemented, treated areas would be mapped using a Geographic Positioning System (GPS). A photo point(s) would also be established prior to commencing the project.
- Monitor the project site for the spread of weeds, and spot treat as needed for the duration of the treatment and a three-year (minimum) period following completion.

**No Action Alternative:**

Under the No Action Alternative, treatments would not be implemented.

Map 2, Davis-Sandburg Proposed Action



## ISSUES

This project was internally scoped. It was also placed on the Uncompahgre NEPA web page as public notification.

Identified issues are:

- What are the soil erosion and bare ground concerns that could be created or changed by the project?
- What are the effects of the project on functional group composition and seral stage processes.
- Is there a risk of the project activity spreading weed seed, or the project results increasing the potential for weed spread?
- No Federally listed species are known within the area. Is there opportunity to improve habitat for BLM sensitive Brewer's sparrow, and potentially for sage grouse connectivity habitat?
- What, if any, are the impacts on migratory birds, since this project could be worked on during early spring and early summer.
- Are there impacts on big game severe winter range?
- What will the effects of the project be on the amount of sediment runoff in the short and/or longer term?
- What are the effects of the project to forest products, and to what extent?
- Does the project alter fire behavior? What is the impact on fire prevention or suppression?
- Chainsaws will produce increase in noise. What are the impacts on wildlife or humans?

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5-3, BLM 1617.3):

Name of Plan: Uncompahgre Basin Resource Management Plan

Date Approved: July 26, 1989

Decision Number/Page: Page 12. Management Unit 1 (Livestock grazing, wildlife habitat, recreation, woodlands).

Decision Language: Land treatment projects and other facilities designed to improve livestock forage and distribution will be developed. Woodland harvest areas will be managed for increased forage production.

Standards for Public Land Health: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. A finding for each standard will be made in the environmental analysis (next section).

Standard	Definition/Statement
#1 Upland Soils	Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.
#2 Riparian Systems	Riparian systems associated with both running and standing water, function properly and have the ability to recover from major surface disturbances such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment, and provides forage, habitat and bio-diversity. Water quality is improved or maintained. Stable soils store and release water slowly.
#3 Plant and Animal Communities	Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes.
#4 Threatened and Endangered Species	Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.
#5 Water Quality	The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado. Water Quality Standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation requirements set forth under State law as found in (5 CCR 1002-8), as required by Section 303(c) of the Clean Water Act.

## AFFECTED ENVIRONMENT and ENVIRONMENTAL CONSEQUENCES

This chapter provides a description of the human and environmental resources that could be affected by the Proposed Action and presents comparative analyses of the direct, indirect and cumulative effects on the affected environment stemming from the implementation of the Proposed Action.

Potential effects to the resources/concerns in the table (below) were evaluated to determine if detailed analysis is necessary. Consideration of some elements is to ensure compliance with laws, statutes, regulation or Executive Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general, the Standards for Public Land Health, or to the BLM Uncompahgre Field Office (UFO) in particular.

Elements	<sup>1</sup> Not Present	<sup>2</sup> Present / No Analysis Needed	<sup>3</sup> Present / Requires Further Analysis	Rationale if not Analyzed
Air Quality		X		No increase in traffic beyond reasonable public lands usage would occur. Fumes from chainsaws will dissipate within a few feet and a few minutes. The level of impact is expected to be minor and not to the level that needs analysis.
ACEC	X			No ACECs are within or near the project area.

Wilderness	X			Project Area is not within, and would not impact, any Wilderness or WSA.
Lands with Wilderness Characteristics	X			Project Area is not within an area inventoried as having land with wilderness characteristics.
Wild and Scenic Rivers	X			Project Area is not near an eligible segment of Wild and Scenic Rivers.
Cultural		X		The area has been inventoried in the past, and there are not any sites eligible for historic preservation or avoidance.
Native American Religious Concerns	X			Not present within project area
Farmlands, Prime/Unique	X			Project area is not irrigated; there are not prime or unique farmlands.
Soils			X	
Vegetation			X	
Invasive, Non-native Species			X	
Threatened and Endangered Species			X	
Migratory Birds			X	
Wildlife, Terrestrial			X	
Wildlife, Aquatic	X			Aquatic wildlife is not present within Project Area.
Wetlands & Riparian Zones	X			The Project Area does not have riparian zones or wetlands.
Floodplains	X			Floodplains are not present within Project Area.
Water -- Surface			X	
Water -- Ground	X			No potential within Project Area.
Wastes, Hazardous or Solid		X		Impacts are expected to be very low, and not to the extent that analysis is needed. Design features will address chainsaw fueling.
Environmental Justice		X		The project is maintaining a previous land treatment. The project will not impact any minority or disadvantaged populations disproportionately, and possibly not at all.
Socio-Economics		X		The project will not affect anyone economically, other than a potential contractor, who would benefit.
Access		X		Project Area is accessed by open-access BLM roads via 25 Mesa Road. Access will not

				be impacted.
Transportation		X		Project Area is accessed by designated BLM roads via 25 Mesa Road. There is no proposal to travel off the designated routes. Transportation will not be impacted.
Cadastral Survey		X		Design features will address protection of the PLSS.
Realty Authorizations	X			No Right of Ways or other realty authorizations are within project area.
Range Management		X		The project is not anticipated to impact livestock forage, or authorized grazing, to the degree that detailed analysis is necessary.
Forest Management			X	
Fire			X	
Noise			X	
Recreation		X		Will not affect recreational opportunities
Visual Resources		X		Will not change the character of the landscape or the visual inventory.
Geology and Minerals		X		The project will not affect the presence of minerals or mining activities.
Paleontology	X			The project will not be surface disturbing to the degree than any potential paleontological item would be impacted.
Law Enforcement		X		The project will not increase access for criminal activity in or around project area.

<sup>1</sup>Not present: the element is not present in the area impacted by the proposed or alternative actions.

<sup>2</sup>Present but no analysis needed: the element may be present, but not affected to a degree that detailed analysis is required.

<sup>3</sup>Present and requires further analysis: the element is present and requires further analysis because:

- 1) analysis of the issue is necessary to make a reasoned choice between alternatives, or
- 2) analysis of the issue is necessary to determine the significance of impacts.

#### SOILS (includes a finding on Standard 1)

**Affected Environment:** The soils at the site are comprised primarily of the Barboncito-Rock outcrop complex (343 acres) and the Arabrab fine sandy loam (72 acres). Both of these soils are derived from the Dakota sandstone geologic formation. The rock complex has slopes ranging from 3-20 percent. Runoff potential is high due to the lack of infiltration on rock surfaces.

Existing vegetation cover on the site is comprised of grass, shrub and tree cover and provides substantial protection for soils during erosive rain events. No evidence of excessive erosion was found during a site visit to the project area.

**Environmental Consequences:**

**Proposed Action** – Unit 1 is expected to be slashed at a rate of 100 acres or less every 3 years. With the existing grass and shrub cover, no additional erosion is expected with slashing of trees due to the scattering of slash in runoff drainages. Any loss of cover from standing trees will be offset by the additional ground cover from scattering of trees. Incidental cutting of trees in Unit 2 on 92 acres would not cause any additional erosion from the site.

**No Action Alternative** – No tree removal would occur and the grass component would likely begin to decline over the next 10-20 years as trees become more dominate on the site. This would lead to more soil erosion typical of pinyon-juniper sites.

**Finding on the Public Land Health Standard for upland soils:** Unit 1 currently meets land health standards for soils. Unit 2 does not meet and the problems are bare soil and tree invasion. Cutting of Christmas trees would decrease tree cover and increase grass cover. This would help move the land health finding toward meeting standards.

VEGETATION (includes a finding on Standard 3)

**Affected Environment:** Functional group composition (i.e. the proportions of grasses, forbs, shrubs and trees in the plant community), and seral stage processes are the most relevant vegetation parameters for this project because they are the most responsive to tree removal. Information on the current plant functional group composition has been collected along several fixed transects in the project area, and appears in Appendix A. Presently, perennial grass is the dominant component in Unit 1, and shrubs are next in dominance, with trees generally a minor component. Inside Unit 2, conditions appear more variable but trees are a large component along with the grass, and shrubs are more of a secondary component. The Spring Creek/Dry Creek Vegetation Management Strategy (BLM 2003) shows seral stage categories that are applicable to the Project Area. The early-mid seral stage is defined as a shrub grass stage, while the mid-seral stage is described as shrub with tree in-filling. Based on the composition data, Unit 1 appears to fit between early-mid and mid seral, while Unit 2 falls into the mid-seral category.

Seral stage processes involve the transition from one vegetation type to another one. These processes include changes due to the aging of vegetation whereby plant communities transition from herbaceous to woody plant dominance, and changes from disturbance which frequently move the community in the other direction. Repeat readings of the fixed transects show the rate of transition toward tree dominance following the disturbance of the chaining and rollerchop (Appendix A). The tree cover trend data indicates that rates of tree increase are slow but detectable, averaging about 0.4% increase in tree canopy cover per year. Shrub data shows an average decrease in cover of about -0.7% cover per year. This supports the assumption that tree dominance is increasing in the project area with time since disturbance. Photos of these study locations from the most recent reading dates are included to show the seral stages.

Study in Unit 1: A14008P01D03: - early-mid/mid seral stage



Study in Unit 2: Davis Sandburg CTO1: mid seral stage



**Environmental Consequences:**

**Proposed Action** – Slashing of small trees will remove nearly all of the tree component from Unit 1. This will result in greater grass, forb and shrub composition, and return the unit to an early-mid seral stage. Incidental harvest of Christmas trees in Unit 2 will have little overall effect on tree composition. Unit 2 will stay in the mid seral stage for many years, until the trees reach about 25% cover, or the stem-exclusion, late-mid seral stage.

**No Action Alternative** – No tree removal would occur, and the trees in Units 1 and 2 would likely continue to increase at a slow rate. Unit 1 would likely transition to mid-seral stage within 10-20 years. Unit 2 would stay in the mid seral stage for many years, until the trees reach about 25% cover, or the stem-exclusion, late-mid seral stage.

**Finding on the Public Land Health Standard for plant and animal communities**

(partial, see also Wildlife, Aquatic; Wildlife, Terrestrial; and Invasive, Non-native Species):

Unit 1 currently meets Standard 3 for vegetation. Unit 2 meets Standard 3 with problems, although tree invasion is cited as a concern. Unit 2 has issues with low forb cover and tree invasion. Neither the Proposed Action nor the No Action Alternative will change these current ratings. While some tree removal would occur in Unit 2, it is unlikely that it would be sufficient to remove all the reestablishing trees. Nevertheless, the Proposed Action will address a threat that affects Unit 1 and that could degrade land health over time.

INVASIVE, NON-NATIVE SPECIES (includes a finding on Standard 3)

**Affected Environment:** Invasive species in the project area include hoary cress (*Cardaria draba*), and Russian knapweed (*Acroptilon repens*). Both of these species are on the Colorado noxious weed list as “B” listed species, which is designed to stop the continued spread of these species. These species are not prevalent within the treatment area and are mostly located around soil disturbances such as ponds, roads, and trails.

**Environmental Consequences:**

**Proposed Action** – In either parcel the proposed action does not require any soil disturbance and slashing will not directly contribute to the establishment or spread of noxious weeds. Vehicles used to transport equipment, and people coming from an area that is weed infested, could introduce new weeds into the area. A design feature requires all vehicles and equipment to be clean and washed free of dirt and debris that could contain weed seeds; this would reduce the amount of weed introduction to the area.

**No Action Alternative** – Noxious weed establishment and spread would not occur from the proposed project.

**Finding on the Public Land Health Standard for plant and animal communities**

(partial, see also Wildlife, Aquatic; Wildlife, Terrestrial; and Vegetation): See the description of Land Health under Vegetation. Regarding noxious species, the project would not change the findings.

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

**Affected Environment:** The Uncompahgre Field Office (UFO) refers to the most current Colorado county list provided by the U.S. Fish and Wildlife Service to analyze the effects of a proposed action on threatened, endangered and candidate species and designated critical habitat for these species. No threatened, endangered, or federally protected species or habitats occur in the proposed action area.

In accordance with *BLM Manual 6840*, the goal of management is to prevent a trend toward federal listing or loss of viability for sensitive species. Several sensitive species are known or have the potential to occur in the project area (BLM 2014). BLM sensitive species brought forth for analysis include bats (big free-tailed bat, spotted bat, Townsend's big-eared bat, fringed myotis), bald eagle, Brewer's sparrow, snakes (midget-faded rattlesnake, milksnake) and sensitive plants (Montrose bladderpod, Grand Junction milkvetch). More detail can be found in the sensitive species clearance report (6840 file).

### **Environmental Consequences:**

**Proposed Action** – Only occurring and potentially occurring species are assessed in this section. The proposed treatments would have “no effect” on the remaining species. Refer to the Vegetation section above for a general discussion of potential impacts of the proposed treatments on vegetation communities. With the appropriate measures, including seeding when needed, treatments would likely result in improved vegetation species diversity, increased habitat edge, recruitment and growth of young vegetation. The results can be beneficial for some species and less so for others depending on the target species' life history needs (cover, food, space, water). It is generally assumed that more diverse vegetation communities across a landscape, both from a composition and spatial standpoint, translate to more diverse wildlife communities.

Treatment activities themselves may have impacts on some species, particularly less-mobile species (i.e., reptiles or plants) unable to avoid proposed treatment areas. These impacts are expected to be short-term and negligible for both terrestrial species (via habitat modification and direct disturbance). Overall, the proposed treatments are expected to improve and expand native habitats and ultimately benefit the majority of these species.

Treatment activities may disrupt breeding and nesting of sensitive birds (Brewer's sparrow), potentially causing nest abandonment and loss of reproduction that year. Any undetected nests, eggs, or nesting features (trees, substrate, etc.) could be crushed, destroyed, or modified by project activities, and young birds could be killed. Adult birds will most likely avoid areas during treatment. Outside the bird breeding season, short-term impacts on individuals may occur by disrupting foraging, migrating, and wintering birds. Treated areas may be temporarily unsuitable for these species. Refer to the Migratory Birds section for additional details on potential effects on these species.

Sensitive bats and reptiles may be temporarily impacted by treatments and habitat conditions. Individuals unable to avoid activities may be injured or killed. The net, long-term effect is

expected to be beneficial for these species by restoring native vegetation cover and mitigating the risk of catastrophic fire.

Project activities may inadvertently crush or kill sensitive plants and degrade or fragment habitats.

With project design features, the proposed treatments would have minimal, short-term impacts and “may affect, but are not likely to result in a trend toward federal listing” for bald eagle, Brewer’s sparrow, sensitive bats, midget faded rattlesnake, milk snake, Montrose bladderpod (*Lesquerella vicina*). Based on the above information, project design features, and/or current distribution of species, the proposed action would have “no effect” on the remaining BLM sensitive species (BLM 2014).

**No Action Alternative** – Without the proposed treatment, current vegetative condition and trends would continue.

**Finding on the Public Land Health Standard for Threatened & Endangered species:** The project would have no detectable impact on threatened, endangered, or special status species within the project area. Threatened, endangered, and sensitive species’ habitats would not be greatly affected by the proposed action in the short term. Over the long term, the proposed action should improve habitat conditions for the majority of these species.

## MIGRATORY BIRDS

**Affected Environment:** Plant communities within the analysis area provide habitats for a variety of migratory bird species. The U.S. Fish and Wildlife Service list of Birds of Conservation Concern was used as to complete this analysis (USFWS 2008, Table 14, p.32, BCR 16 [Southern Rockies/Colorado Plateau]). From this list six species are known or have potential to occur in the UFO and are protected under the Migratory Bird Treaty Act (MBTA). They include golden eagle, Lewis’ woodpecker, gray vireo, pinyon jay, juniper titmouse and Cassin’s finch. There are no known nest sites for any of these species, but they may be present in the area.

### **Environmental Consequences:**

**Proposed Action** – Short-term displacement of individuals may occur during treatment. However, such effects are expected to be minimal and short-term. At times, proposed treatments may coincide with the breeding period for one or more of these species. Nests and/or eggs could be crushed or destroyed by project activities, and young could be killed. Adult birds would most likely avoid areas during treatment.

Following treatments, perch sites and cavity nest sites may be reduced for some bird species. Individual wintering and resident birds may be affected by the removal of trees that provide hiding and thermal cover. Some areas may be temporarily unsuitable for some species as a result of treatments. However, long-term, structural diversity and habitat conditions should improve

(see Vegetation section). Treatment design includes limiting the number of acres treated per year. This will limit the “footprint” of disturbance each year.

**No Action Alternative** – Without the proposed treatment, current vegetative condition and trends would continue.

#### WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

**Affected Environment:** The project area contains elk severe winter range. Both deer and elk use the area throughout the summer, spring, and fall. The area also provides seasonal habitat for other regionally common species such as turkeys, black bear, coyotes, mountain lion, bobcat, and a variety of rodents, raptors, and other birds.

#### **Environmental Consequences:**

**Proposed Action** – Effects to terrestrial wildlife species would be similar to those described under the Migratory Bird and Threatened, Endangered, and Sensitive Species Sections. Some species may be temporarily displaced while equipment or chainsaw crews are working, but would return following treatment. Individuals of less mobile species could be crushed or injured during treatment. Long term, vegetation diversity and condition should increase (see Vegetation section). Project design features (December 1- April 30 seasonal restriction) would minimize impacts on wintering animal populations, particularly deer and elk, and will minimize displacement of these animals onto adjacent lands.

**No Action Alternative** – Vegetation condition and trends would continue, increasing the likelihood of a destructive fire.

**Finding on the Public Land Health Standard for plant and animal communities** (partial, see also Vegetation; Invasive, Non-native Species; and Wildlife, Aquatic): Proposed vegetation treatments would enhance the productivity of terrestrial habitat and animal communities and would, therefore, meet the criteria for this land health standard.

#### WATER -- SURFACE (includes a finding on Standard 5)

**Affected Environment:** The project area is within a subwatershed, 779 acres in size. The average annual precipitation at the site is 10.2 inches. The 100-year peak flood event at the mouth of the watershed as it discharges into Monitor Creek is 457cfs. The mean basin slope is 17 percent, although the project area sits on top of a bench with slopes between 3-5 percent (USGS, StreamStats).

The main drainage channel in the watershed runs directly through the project area and is densely covered with trees. A livestock pond is located towards the upper end of the drainage and provides a sediment catchment for runoff from portions of the project area. In a site visit to the area, no evidence of runoff overtopping this structure was found.

**Environmental Consequences:**

**Proposed Action** – Unit 1 is expected to be slashed at a rate of 100 acres or less every 3 years. Using the Water Erosion Prediction Project tool (USDA WEPP, 2013) runoff was modeled with a thin or young forest as a cover type and then rerun with grass cover to simulate conditions after the slashing treatment. No change was detected by the model in runoff. This is likely due to the sandy loam soil type that allows for good infiltration and the shallow slopes of the site. While there are steeper slopes in the watershed, those were not disturbed in any of the treatments and provide a good buffer for the existing ephemeral channel.

**No Action Alternative** – No tree removal would occur and the grass component would likely begin to decline over the next 10-20 years as trees become more dominate on the site. This would lead to more runoff from the site typical of pinyon-juniper sites.

**Finding on the Public Land Health Standard for upland soils:** Monitor creek is the nearest intermittent creek and receives water from this project area. In the latest land health survey done in 2009 it was found to be meeting standards. This project will not change the finding on Monitor Creek.

FOREST MANAGEMENT

**Affected Environment:** As a result of previous treatments, much of the pinyon and juniper that would be influenced by the proposed action is very young (10 to 30 years old). The pinyon and juniper resources that would be influenced by the proposed action may have some limited value locally as a source of small Christmas trees.

**Environmental Consequences:**

**Proposed Action** – Approximately 324 acres of young pinyon and juniper would be removed by slashing. Slashing trees would consist of selective removal of living pinyon and juniper with hand tools and/or chainsaws down to the base of the stump. The removal of these woodland resources would have no impact on commercial forest products as none of the project area is considered in the commercial forest base.

**No Action Alternative** – Under the no action alternative, there would be no impacts to existing woodland resources. In the absence of disturbance causing events, pinyon and juniper would continue to establish and mature to a closed-canopy woodland over time.

FIRE

**Affected Environment:** Within the treatment area there have been previous vegetation treatments to reduce the density of pinyon and juniper community to improve resiliency to wildfire and for forage for wildlife and livestock.

**Environmental Consequences:**

**Proposed Action** – Slashing would remove young pinyon and juniper from sagebrush openings, decreasing fuel loading in those units. As a result, future wildfires would

tend to not burn continuously across the landscape, creating a mosaic pattern sustaining increased diversity across the landscape. The reduction in fuel loading and fuel continuity, in turn, would greatly reduce the potential for severe, or stand replacing, fire to occur.

**No Action Alternative** – Under the no action alternative, there would be no immediate impacts to existing vegetation structure. Over time, density of pinyon and juniper would increase, along with the density of mountain shrubs, while the available forage would decrease. Hazardous fuels would continue to accumulate in the absence of fire. Correspondingly, the potential for sustained crown fire in the canopy, as well as stand replacing fire would increase over time.

## NOISE

**Affected Environment:** The project area is generally characterized as quiet for much of the time. Noise is generated periodically from vehicles, ATVs or motorcycles on roads through the area; this is most noticeable during the fall hunting seasons.

### **Environmental Consequences:**

**Proposed Action** – There would be a short-term generation of noise from chainsaws, which would be heard in the immediate vicinity, possibly up to a distance of 1 mile. Work would proceed primarily during weekday daylight hours; however, some work could occur on the weekends as well. Noise would only be for the duration of the project, and would not have an impact beyond project completion.

**No Action Alternative** – There would not be impacts to noise.

## CUMULATIVE IMPACTS SUMMARY

Cumulative impacts are the environmental impacts that could result from the implementation of the Proposed Action, when added to the impacts from all other past, present, and reasonably foreseeable activities, regardless of who is conducting such activities. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. The cumulative effects analysis considers the geographic scope of the cumulative effects and past, present, and reasonably foreseeable actions.

Other activities impacting resources in the project area on BLM, Forest Service, and private property in the watershed, include wildfire, vegetation treatments, livestock production, irrigated agriculture, grazing, rights-of-ways, residential and commercial land development, recreation and travel infrastructure.

The pinyon-juniper vegetation type on the eastern slope of the Uncompahgre Plateau is undergoing many site-level changes to seral stages and plant functional group composition as drought, insect infestation, fire, and mechanical clearing take place. In addition, the woodlands are slowly aging. General trends in vegetation structure are probably showing little overall change across the landscape. The Proposed Action would take place within this context, and

according to vegetation structure objectives set out in the Spring Creek/Dry Creek Vegetation Management Plan. The Proposed Action represents a minor change from early-mid/mid seral to an early-mid seral stage on 324 acres, which is in keeping with plan objectives for this site, while Unit 2 would not undergo a seral stage change. Across the tens of thousands of acres of pinyon-juniper woodland on the eastern slope of the Plateau, the small size and change in stage would not represent a detectable cumulative change to vegetation, noxious or invasive species, or forest management. The small change to vegetation also would not result in a noticeable impact, positive or negative, to wildlife and bird habitat in the region.

This project, when combined with the past, present and reasonably foreseeable actions, would not cause any short term or long term impacts to soil viability or water quality. Impacts would be expected from all of the cumulative actions in the watershed on disturbed sites, but this project would not be detectable in the cumulative effects in the watershed.

The project would temporarily add to other sources of noise nearby, including the county road and motorized traffic.

INTERDISCIPLINARY REVIEW: The following BLM personnel have contributed to and have reviewed this environmental assessment.

<u>Name</u>	<u>Title</u>	<u>Area of Responsibility</u>
Kelly Homstad	Fire Use Specialist	Forest Management, Fire
Jedd Sondergard	Hydrology	Soils, Surface Water
Amanda Clements	Ecologist	Vegetation
Missy Siders	Wildlife Biologist	TE & S, Migratory Birds, Wildlife
Bruce Krickbaum	NEPA Coordinator	Document Review

References

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Appendix A.

Vegetation composition within the Project Area. Typical percentages of the plant functional groups within each treatment unit.

<b>Transect Number</b>	<b>Perennial Grass Composition</b>	<b>Perennial Forb Composition</b>	<b>Shrub Composition</b>	<b>Tree Composition</b>
Inside Rollerchop (Unit 1)				
A14008P01D03	81%	3%	15%	0.4%
Davis Sandburg RC1 CTI1	47%	17%	22%	14%
Davis Sandburg RC1 CTI2	47%	15%	21%	0.5%
Inside Old Chaining (Unit 2)				
Davis Sandburg RC1 CTO1	48%	0%	24%	28%
Davis Sandburg RC1 CTO2	17%	43%	15%	20%

Trends in shrub and tree cover within the Project Area. Canopy cover values are shown to portray the changes over time.

<b>Transect Number and years read</b>	<b>Shrub Cover</b>	<b>Tree Cover</b>	<b>Shrub Cover</b>	<b>Tree Cover</b>
Before rollerchop → After rollerchop				
A14008P01D03 2000, 2009	18%	0%	7%	0.2%
After rollerchop, no further disturbance				
Davis Sandburg RC1 CTI1 2007, 2012	12%	0.2%	7%	4%
Davis Sandburg RC1 CTI2 2004, 2007	1.8%	0%	7%	0.2%
About 40 years after chaining, no further disturbance				
Davis Sandburg RC1 CTO1 2004, 2009	12%	10%	6%	7%
Davis Sandburg RC1 CTO2 2004, 2007	11%	1.3%	5%	6%