

U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
220 E Market St  
Meeker, CO 81641

## ENVIRONMENTAL ASSESSMENT

**NUMBER:** DOI-BLM-CO-110-2013-0037-EA

**CASEFILE/PROJECT NUMBER:**

**PROJECT NAME:** Badger Flat Mechanical Treatment

**LEGAL DESCRIPTION:** T5N R100W Sec. 1, 2, 3, 4, 10, 11, 12, 19

**APPLICANT:** BLM

**PURPOSE & NEED FOR THE ACTION:** This project was designed to reduce pinyon/juniper woodland encroachment into sagebrush communities in an effort to restore suitable habitat character for greater sage-grouse. The treatment unit is classified as fire regime 2 (having fire associated disturbance every 50-150 years) with a condition class II rating (moderate departure from the pre-settlement fire regime) as evidenced by the depauperate understory, level of decadence expressed in the sagebrush, and encroachment of pinyon/juniper into the sagebrush community. Also, a hazardous fuels component has been built into this project to reduce the unnatural fuel loading associated with the previous chaining in the target area. The need for the Proposed Action is to respond to a Federal Land Policy and Management Act (FLPMA) requirement that the public lands be managed in a manner that will protect the quality of historical and ecological values.

**Decision to be Made:** The Bureau of Land Management (BLM) will decide whether or not to approve the proposed vegetation treatment and if so under what conditions.

### **SCOPING, PUBLIC INVOLVEMENT, AND ISSUES:**

**Scoping:** The BLM used scoping as the primary mechanism to initially identify issues. Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on 01/22/2013. External scoping was conducted by posting this project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 01/29/2013.

**Issues:** No issues were identified during public scoping.

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

**Background/Introduction:** The Three Springs Ranch approached the White River Field Office (WRFO) rangeland management specialist and fuels specialist with the possibility of conducting some prescribed burning to improve livestock distribution. Their original proposal involved 1,675 acres BLM, 1,951 acres Private and 240 acres State lands in eight individual burn units distributed through the Wolf Creek allotment (06323). Two units, Badger Flat and Wasson Draw, were agreed upon between the range, wildlife and fuels programs in collaboration with Joel Tuck of Three Springs Ranch as meeting the needs and goals for all resources involved. The Wasson Draw unit was treated using prescribed fire in 2008 and is being monitored for post fire vegetation regeneration. In spring of 2012 Badger Flat was attempted, but ignitions ceased as objectives were not being met. The prescribed burns were analyzed in [CO-110-2007-089-EA](#). Mechanical treatment was considered but not carried forward as an alternative due to budgetary constraints. Outside funding sources may now make this a viable alternative.

**Proposed Action:** The Badger Flat unit (391 acres) is predominately sagebrush with encroaching pinyon/juniper. Mastication, mowing, or hand thinning will be conducted to achieve resource objectives. The objectives are to rejuvenate the sagebrush community, limit mortality of sagebrush to less than 40 percent and remove approximately 100 percent of the invading pinyon/juniper trees to limit encroachment into sage parks, increase the understory expression/composition, and to retain valuable forage species for sage-grouse, wildlife and livestock. The treatment will create mosaic and edge effects intended to retain a seed source for sagebrush re-establishment. Mechanical treatments may be implemented using hydroax, mower, brush beater, bull hog, chainsaw or a combination of these equipment types. Mechanical equipment will be wheeled, rather than tracked, to prevent soil compaction and erosion. The Badger Flat unit would be scheduled for treatment as early as summer 2013, but may be implemented at any time. Sensitive sites that were identified in CO-110-2007-089-EA have been excluded from the target area.

### **Design Features:**

1. Locate, flag, and protect any survey monuments (brass cap monuments, bearing trees, private monuments) that may exist in this project area.
2. Mechanical equipment must be washed prior to entering the project area to prevent the spread of noxious weeds.
3. Mechanical treatment operations will not be conducted in muddy conditions. Muddy conditions are when the soils are saturated three inches below the surface (1997 White River RMP) or when wheeled vehicles will leave soil ruts of more than three inches during normal operations.
4. The treated areas would be monitored for noxious/invasive weed infestations for a minimum of three years post treatment. Any infestations identified will be suppressed / eradicated by BLM using methods and materials approved by BLM.

5. Pre-implementation monitoring plots will be installed and then monitored to evaluate treatment effectiveness, vegetation succession, and plant diversity.
6. A minimum of 10 foot buffer of untreated vegetation will be left around drainages to inhibit excessive erosion.
7. Mechanized equipment will be mounted on rubber-tired tractors. The entire canopy and bole will be mulched and evenly scattered. Where it is desired to retain sagebrush, the cutting head will be turned off or raised to a minimum of 30 inches when traveling between trees so that sagebrush at the site is not mowed.
8. If chainsaws or handsaws are to be used, trees will be cut off as close to the soil surface as possible.
9. All fueling of equipment will occur outside of drainages on flat ground.
10. Report all spills of fuels, lubricants, etc. to the Field Office Hazardous Materials Coordinator within 24 hours.
11. Cut and scattered vegetation will not be left more than 18 inches high from the ground surface upon completion of the project.
12. The BLM project lead is responsible for informing all persons who are associated with the project that they will be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts.
13. If any archaeological materials are discovered as a result of operations under this authorization, activity in the vicinity of the discovery will cease, and the BLM WRFO Archaeologist will be notified immediately. Work may not resume at that location until approved by the AO. The BLM or contractor under the guidance of the BLM will make every effort to protect the site from further impacts including looting, erosion, or other human or natural damage until BLM determines a treatment approach, and the treatment is completed. Unless previously determined in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the State Historic Preservation Office (SHPO), select the appropriate mitigation option within 48 hours of the discovery. The BLM will implement the mitigation in a timely manner. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation to the SHPO for review and concurrence.
14. Pursuant to 43 CFR 10.4(g), BLM project lead or contractor under the guidance of the BLM must notify the AO, by telephone and written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), the operator must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

15. The BLM project lead is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate fossils, collecting large amounts of petrified wood (over 25lbs./day, up to 250lbs./year), or collecting fossils for commercial purposes on public lands.
16. If any paleontological resources are discovered as a result of operations under this authorization, the operator or any of his agents must stop work immediately at that site, immediately contact the BLM Paleontology Coordinator, and make every effort to protect the site from further impacts, including looting, erosion, or other human or natural damage. Work may not resume at that location until approved by the AO. The BLM or designated paleontologist will evaluate the discovery and take action to protect or remove the resource within 10 working days. Within 10 days, the BLM or contractor under the guidance of the BLM will be allowed to continue construction through the site, or will be given the choice of either (a) following the Paleontology Coordinator's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (b) following the Paleontology Coordinator's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.
17. Stands of trees containing individuals of age greater than 300 years and having old growth stature and development will be avoided.
18. It is the BLM's or contractor under the guidance of the BLM responsibility to restrict public access into specific areas where the vegetation is being actively treated in order to protect public safety.

**No Action Alternative:** No mechanical vegetation removal associated with this proposal would occur under this alternative. Prescribed fire may still be used to treat the target area as covered in the CO-110-2007-089 EA. If the target area is left untreated the fire regime and condition class would likely increase over time as the sage park transitions to pinyon/juniper woodland. Due to the suppressed/declining condition of the understory community within the Badger Flat treatment area and the presence of cheatgrass, strong potential exists for the site to continually degrade and inhibit progression towards a functioning mid-seral sagebrush community.

#### **ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:**

**Chemical Treatment:** Using herbicides to kill woody vegetation was considered but eliminated from further analysis because selective chemical treatment across a large such a large area is cost prohibitive and results are visually unappealing. In order to treat a large area with herbicide, aerial application is preferred. Utilizing this treatment method would greatly increase mortality in non-targeted species. In addition, the vertical orientation of the course woody fuel bed would do little to reduce hazardous fuels concerns in the treatment area.

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

Name of Plan: White River Record of Decision and Approved Resource Management Plan (White River ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Page 2-12

Decision Language: “Specific goals for the pinyon/juniper woodland plant community are: 3) Reduce pinyon/juniper tree component where pinyon or juniper has dominated or is invading other ecological sites.”

**AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES**

**Standards for Public Land Health:** In January 1997, the Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, special status species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis (EA). These findings are located in specific elements listed below.

**Cumulative Effects Analysis Assumptions:** Cumulative effects are defined in the Council on Environmental Quality (CEQ) regulations (40 CFR 1508.7) as “...the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” Table 1 lists the past, present, and reasonably foreseeable future actions within the area that might be affected by the Proposed Action; for this project the area considered was the Natural Resources Conservation Service (NRCS) 5<sup>th</sup> Level Watershed. However, the geographic scope used for analysis may vary for each cumulative effects issue and is described in the Affected Environment section for each resource.

**Table 1.** Past, Present, and Reasonably Foreseeable Actions

Action Description	STATUS		
	Past	Present	Future
Livestock Grazing	X	X	X
Wild Horse Gathers			
Recreation	X	X	X
Invasive Weed Inventory and Treatments	X	X	X
Range Improvement Projects : Water Developments Fences & Cattleguards	X	X	X
Wildfire and Emergency Stabilization and Rehabilitation	X	X	X
Wind Energy Met Towers			

Action Description	STATUS		
	Past	Present	Future
Oil and Gas Development: Well Pads Access Roads Pipelines Gas Plants Facilities			
Power Lines	X	X	X
Seismic			
Vegetation Treatments	X	X	X

**Affected Resources:**

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

**Table 2.** Resources and Determination of Need for Further Analysis

Determination <sup>1</sup>	Resource	Rationale for Determination
<b>Physical Resources</b>		
PI	Air Quality	See discussion below.
NI	Geology and Minerals	The proposed vegetative treatments would have no impacts on the geologic or mineral resources in the project area.
PI	Soil Resources*	See discussion below.
NI	Surface and Ground Water Quality*	Minimal surface disturbance is expected in upland soils. No changes in erosion or runoff rates are expected; therefore no impacts to surface or ground water quality is likely.
<b>Biological Resources</b>		
NP	Wetlands and Riparian Zones*	There are no systems that support wetland or riparian zones that would have the potential to be influenced by the Proposed Action. The project area is separated from the nearest perennial waterway, the Yampa River, by approximately 7 miles of ephemeral channel.
PI	Vegetation*	See discussion below.
PI	Invasive, Non-native Species	Impacts to Invasive, Non-native species was adequately addressed in EA number CO-110-2007-089-EA page 7 and is incorporated by reference into this document. There is the added risk of weed seeds being transported onsite by equipment used for mowing/mastication, but if equipment is washed before being brought onsite as described in the Proposed Action, and with adequate re-vegetation, impacts are expected to be minimal.

<b>Determination<sup>1</sup></b>	<b>Resource</b>	<b>Rationale for Determination</b>
PI	Special Status Animal Species*	See discussion below.
NP	Special Status Plant Species*	The nearest known occurrence of special status plant species is 8,000 m to the west of the Proposed Action. Special status plant species will not be affected by the Proposed Action.
NI	Migratory Birds	A variety of migratory bird species fulfill reproductive functions in the project area's sagebrush and woodland communities from mid-May through mid-July. Birds associated with the project site are widely distributed and common throughout the Resource Area in extensive suitable habitats. The project area is not inhabited by any species that are narrowly endemic or highly specialized, although a number of birds of conservation concern are known to use the habitats that encompass the project area. While the timing of the Proposed Action is not specified, the use of mechanical means to remove trees during the nesting season may temporarily disrupt nesting birds. However, the removal of pinyon/juniper regeneration that generally possess attributes less favorable for nest site selection (e.g., poorly developed subcanopy, lack of cavities, simple small-diameter branching) is expected to improve nesting habitat for migratory birds. Any subsequent years nest site selection would be done in the face of this disturbance and there should be no significant long term impacts on nesting success.
NP	Aquatic Wildlife*	There are no systems that support aquatic wildlife or provide habitat for aquatic species that would have the potential to be influenced by the Proposed Action. The nearest system which supports higher order aquatic vertebrate species is the Yampa River and it is separated from the proposed location by approximately 7 miles of ephemeral channel.
NI	Terrestrial Wildlife*	The project area's sagebrush and pinyon/juniper communities are used year-round by big game. Non-game wildlife using this area are typical and widely distributed in extensive, like habitats across the Resource Area and northwest Colorado, and there are no narrowly endemic or highly specialized species known to inhabit those lands potentially influenced by this action. Due to the poorly composed pinyon/juniper communities (e.g., small acreage and discontinuity) within the Badger Flat area, use by woodland raptors is negligible. There are no rock outcrops that provide adequate nest sites for cliff nesting species such as golden eagle and red-tailed hawk. The Proposed Action is not expected to have any effective influence on the abundance or distribution of big game or nongame populations at any landscape scale. An important aspect of this project for big game would be the maintenance of strong herbaceous development in contrast to the slow decline in herbaceous availability that would attend woodland advance.
NP	Wild Horses	The proposed project is not located within the Piceance-East Douglas Herd Management Area, or the North Piceance and West Douglas Herd Areas therefore the wild horse or their management will not be affected.
<b>Heritage Resources and the Human Environment</b>		
PI	Cultural Resources	See discussion below
PI	Paleontological Resources	See discussion below

<b>Determination<sup>1</sup></b>	<b>Resource</b>	<b>Rationale for Determination</b>
NP	Native American Religious Concerns	No Native American religious concerns are known in the area, and none have been noted by Northern Ute Tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken.
PI	Visual Resources	See discussion below.
NI	Hazardous or Solid Wastes	No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be in de-minimus quantities and would be stored, used, disposed, and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be disposed of properly.
PI	Fire Management	See discussion below.
NI	Social and Economic Conditions	There would not be any substantial changes to local social or economic conditions.
NP	Environmental Justice	According to recent Census Bureau statistics (2000), there are no minority or low income populations within the WRFO.
NP	Lands with Wilderness Characteristics	There are no potential lands with wilderness characteristics identified in the project area.
<b>Resource Uses</b>		
PI	Forest Management	See discussion below.
PI	Rangeland Management	Impacts to Rangeland Management were adequately addressed in EA number CO-110-2007-089-EA page 23 and are incorporated by reference into this document.
NI	Floodplains, Hydrology, and Water Rights	Vegetation treatments with rubber tired equipment and on foot would have little to no impacts to floodplains, hydrology or water rights based on the Proposed Action.
NI	Realty Authorizations	There is a road right-of-way (ROW) within the proposed treatment area. It is unlikely that the mechanical removal of vegetation would impact the existing ROW.
PI	Recreation	See discussion below.
PI	Access and Transportation	See discussion below.
NP	Prime and Unique Farmlands	There are no Prime and Unique Farmlands within the project area.
<b>Special Designations</b>		
NP	Areas of Critical Environmental Concern	The nearest ACEC is Moosehead Mountain which is 12.3 miles to the southwest of the Proposed Action. There will be no known impacts from the Proposed Action.
NP	Wilderness	There are no Wilderness or Wilderness Study Areas in the project area.
NP	Wild and Scenic Rivers	There are no Wild and Scenic Rivers in the WRFO.

Determination <sup>1</sup>	Resource	Rationale for Determination
NP	Scenic Byways	There are no Scenic Byways within the project area.

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

\* Public Land Health Standard

## AIR QUALITY

*Affected Environment:* The Proposed Action is an attainment area for national and state air quality standards, based on a review of designated non-attainment areas for criteria pollutants, published by the Environmental Protection Agency (EPA 2013). Non-attainment areas are areas designated by U.S. Environmental Protection Agency (EPA) as having air pollution levels that persistently exceed the national ambient air quality (NAAQ) standards. The proposed treatment area is less than one mile from Dinosaur National Monument which is a special designation area (designated Class II airshed with Prevention of Significant Deterioration (PSD) with thresholds for sulfur oxides and visibility).

Local air quality parameters including particulates are being measured at monitoring sites located at Meeker, Rangely, Dinosaur and Maybell. The closest location for an Interagency Monitoring of Protected Visual Environments (IMPROVE) site is near the Flat Tops Wilderness. IMPROVE sites are designed to measure the visibility impairment from air borne particles.

*Environmental Consequences of the Proposed Action:* Vegetation treatments would use small engines (chainsaws) and/or heavy equipment (hydroax, mower, brush beater, and/or bull hog) to accomplish mastication, mowing, and/or hand thinning to achieve resource objectives. These engines and equipment would result in emissions of non-criteria pollutants. Non-criteria pollutants (NAAQ standards have not been set for non-criteria pollutants) such as nitric oxide, air toxics (e.g., benzene), and total suspended particulates (TSP) may also experience slight, temporary increases as a result of the Proposed Action. Movement of heavy equipment and transportation of crews to and from the treatment areas would result in low and short-term dust generation from vehicle travel on graveled county roads. Even with these slight increases in criteria and non-criteria pollutants, the project would be unlikely to result in an exceedance of NAAQ standards and Colorado ambient air quality CAAQ standards.

Cumulative Effects: The cumulative effects area for air quality is the Yampa-White River Basins. Dispersed recreation such as hunting and livestock grazing occurs within the project area and oil and gas development as well as coal mining and power plants occur near the proposed treatment areas. These additional uses may impact air quality in the area. The fuels treatment along with other activities described are unlikely to result in overall changes in air quality or cross any thresholds in regard to air quality standards.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: The treatment would not occur and no additional impacts to air quality would occur.

Cumulative Effects: Oil and gas development, livestock grazing and dispersed recreation would likely continue and impacts would be in keeping with the actions as they occur.

## SOILS

*Affected Environment:* The classifications of soils within the proposed treatment area that could be impacted by the Proposed Action are shown in Table 3. There are less than 12 acres of soils that are on slopes greater than 35 percent, there are no fragile soils or soils prone to landslides on Federal lands that will be impacted by this project.

**Table 3. Soil Classifications for the Treatment Area.**

Soil Classification	Surface Texture	Erosion Hazard	Rutting Hazard	Acres
Stunner, moist-Emlin complex, 1 to 12 percent slopes	Loam	Severe	Severe	233
Glendive fine sandy loam	Gravelly Loam	Moderate	Moderate	121
Crago-Pensore-Grapit association, 6 to 75 percent slopes	Channery sandy loam	Moderate	Moderate	37

*Environmental Consequences of the Proposed Action:* When conducting vegetation treatments, rubber tired vehicles or crews on foot would be used for vegetation clearing. Vegetation clearing will be done with heavy equipment (hydroax, mower, brush beater, and/or bull hog) and also by hand with chainsaws accomplish mastication, mowing, and/or hand thinning to achieve resource objectives. Impacts from these treatments would include leaving vehicle and foot tracks and possibly rutting in some locations. These impacts would be more pronounced when soils are saturated; therefore according to the design features for the project, mechanical treatments would not occur in muddy conditions.

Direct impacts from the vegetation treatment would also include exposing soils to increased rainsplash and runoff by reducing and removing vegetative canopy and decreasing surface roughness that protects soils from erosion; however, mulch from the treatments is likely to reduce rainsplash, surface runoff and increase infiltration. These direct impacts will be limited to access points for equipment within more concentrated impacts at individual treatment areas. Direct impacts are expected to be short-term (less than 1 year). Indirect impacts are not expected due to the small amount of disturbance and the small amount of time needed for vegetation treatments.

Cumulative Effects: The cumulative effects analysis area is the treatment area for soils. Dispersed recreation such as hunting and livestock grazing occurs within the treatment area. These additional uses may impact soils. The fuels treatment along with other uses is unlikely to result in overall changes in soil productivity or cross any thresholds in regard to soil stability and erosion.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: The fuels treatment would not occur.

Cumulative Effects: Livestock grazing and dispersed recreation would likely continue and impacts would be in keeping with the actions as they occur.

*Mitigation:* See Design Features.

*Finding on the Public Land Health Standard #1 for Upland Soils:* With the design features, neither alternative is likely to reduce the productivity of soils on public lands or lead to increased instability of soils.

## VEGETATION

*Affected Environment:* The principle ecological sites for the Badger Flat unit are deep loam (211 acres), pinyon/juniper woodland (131 acres), and badlands/rock outcrop (49 acres). Vegetation on both the deep loam and stony foothills ecological sites is mountain big sagebrush (*Artemisia tridentata* ssp *vaseyana*) with serviceberry, bitterbrush, and snowberry present and in places abundant throughout the unit, especially the northwestern portion of the unit. The depauperate yet diverse herbaceous understory is comprised of needle and thread, western wheatgrass, mutton bluegrass, buckwheat, lupine, tapertip hawksbeard and long leaf phlox. Many of these species are currently limited in extent and expression. This unit is experiencing heavy pinyon establishment on the site, which in the absence of a disturbance can be expected to type convert to PJ within the next 75-100 years. The pinyon juniper woodlands ecological site is primarily dominated by mountain big sagebrush with small mature PJ stands. Much of the sagebrush within this ecological site is heavily vegetated with small PJ saplings. This site was probably burned approximately 150-200 years ago and is progressing through succession and transforming into a PJ woodland.

### *Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: The greatest impacts to vegetation will occur to shrubs and encroaching pinyon/juniper trees in the overstory. The Proposed Action is aimed at removing all encroaching pinyon/juniper trees in the project area, and reducing dead/decadent big sagebrush using mowing, mastication, or hand-thinning with chain saws to aid in reinvigorating the plant community. The herbaceous understory will generally be impacted by compaction, or trampling of plants by equipment used for thinning. If treatments are completed during wet/muddy conditions, herbaceous plants will experience a higher degree of disturbance and may be completely removed from the ground resulting in plant mortality. As a design feature of the Proposed Action, this is not expected to occur. Cool-season perennial plants are generally more susceptible to disturbance during the critical growing season (March 15-June 1) as well since most of their energy is going to plant growth and seed head production and less energy is in root stores; however impacts from a rubber tire tractor are expected to be minimal if completed in dry conditions to minimize soil disturbance. Treatment being completed in the late summer, fall, and winter are expected to have the least impact to the herbaceous understory. During these times, plants are generally not actively growing and seed head production has already been completed. Cool-season perennial grasses and forbs may also be completely dormant making them more resistant to disturbance of this type.

Indirect impacts to vegetation are expected to be beneficial to the plant community. By removing encroaching pinyon/juniper and dead-decadent big sagebrush, the understory will be opened up allowing the herbaceous understory to fully express itself. It is anticipated that there will be an increase in diversity of understory forbs and grasses through successful implementation of the project as well as the recruitment of new big sagebrush plants creating a more diverse age-class structure within the plant community.

Cumulative Effects: For this analysis, the Three Springs grazing allotment is the analysis area. Removal of encroaching pinyon/juniper and dead/decadent sagebrush would set the plant community back 150-250 years. In the absence of natural disturbance regimes (fire), mechanical treatments are the next best option to improve plant community structures. On private lands within the analysis area, the permittee has completed several big sagebrush removal projects using a brush mower. Large-scale brush removal projects are anticipated to continue on adjacent private lands which could lead to an overall reduction in cover of big sagebrush that are important to these plant communities. Since this project is mainly aimed at young age class pinyon/juniper and dead/decadent sagebrush, most of the big sagebrush will remain in the community and is not expected to contribute too highly to brush removal occurring within the grazing allotment.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: Implementation of the No Action Alternative will prevent of the removal of pinyon/juniper and dead/decadent big sagebrush within the project area. In the absence of disturbance it is anticipated that the Badger Flat project area would transform completely into pinyon/juniper woodland within the next 100 years. Pinyon/juniper woodlands generally have a decreased level of herbaceous understory and big sagebrush used for wildlife and livestock.

Cumulative Effects: The proposed area for pinyon/juniper removal would develop into mature stands over a period of 150 to 250 years. The area would increase in cover and density causing sagebrush to be smothered out over a period of time.

*Mitigation:* None.

*Finding on the Public Land Health Standard #3 for Plant and Animal Communities:* Vegetation in the proposed project area currently meets the Standard yet with continued pinyon-juniper type conversion that trend can be expected to decline over time in the absence of disturbance such as fire. Successful implementation of this project, while decreasing pinyon/juniper, mountain and Wyoming big sagebrush cover over the short term, will result in a long term improvement in the vegetation cover and composition, and the standard would continue to be met with an upward or stable trend.

## SPECIAL STATUS ANIMAL SPECIES

*Affected Environment:* The project area is primarily located in a sagebrush park with pinyon/juniper encroaching from the surrounding ridge lines. There are no threatened or endangered species that are known to inhabit or derive important use from the project area. However, the greater sage-grouse, a candidate for listing under the Endangered Species Act, has the potential to be directly influenced by the Proposed Action. Approximately 360 acres of the project area lies within general habitat for the greater sage-grouse. The two closest active leks to the Proposed Action are the Karren Ranch Lek (approximately 9 miles southwest of the project area) and the Elk Springs Draw Lek (approximately 9.6 miles southeast from the project area).

There are several additional BLM sensitive species that are known to inhabit or may be indirectly influenced by the Proposed Action, including Brewer's sparrow, ferruginous hawk, northern goshawk, bald eagle, Townsend's big-eared bat, big free-tailed bat and fringed myotis.

Brewer's sparrows are common and widely distributed in virtually all big sagebrush, greasewood, saltbush, and mixed brush communities throughout the planning area. These birds are typically one of the most common members of these avian communities and breeding densities generally range between 10-40 pairs per 100 acres. Typical of most migratory passerines in this area, nesting activities normally take place between mid-May and mid-July.

Although the distribution of bats in the WRFO is incompletely understood, recent acoustic surveys in along the lower White River have documented the localized presence of Townsend's big-eared and big free-tailed bats along this perennial waterway. These species are typically associated with relatively extensive riparian communities when foraging. Riparian communities are available along the Yampa River which is located just north of the project area. These bats typically use caves, mines, bridges, and unoccupied buildings for night, nursery, and hibernation roosts, but in western Colorado, single or small groups of bats use rock crevices and tree cavities. Birthing and rearing of young for these bats occur in May and June, and young are capable of flight by the end of July. The big free-tailed bat is not known to breed in Colorado.

The Yampa River corridor, which is located approximately 1.7 miles north of the project area, provides both nesting habitat and winter roost areas for bald eagle. Population numbers are greatest during the late fall and winter months, when bald eagles make regular foraging use of open upland communities along the river and its larger tributaries.

Ferruginous hawks are relatively rare in the WRFO Resource Area. Typically returning in late-February these birds begin nesting in earnest by mid-April with young generally fledged by late-July. Ferruginous hawks are known to nest in low density pinyon/juniper and on the ground. Prairie dogs are an important prey species for ferruginous hawks. Aerial surveys conducted in 2009 and 2011 showed no evidence of recent nesting attempts in or around the project area. There are no documented (historic or recent) nests within the immediate vicinity of the project area.

The WRFO has no records of goshawk nesting in the vicinity of the project area, the nearest being approximately 37 miles from the Proposed Action. Based on the BLM's experience,

goshawks nest at low densities throughout the WRFO in mature pinyon/juniper woodlands above 6,500 ft and Douglas-fir and aspen stands. Goshawks establish breeding territories as early as March and begin nesting by the end of April. Nestlings are normally fledged and independent of the nest stand by mid-August. An influx of migrant goshawks appears to elevate densities in this Resource Area during the winter months.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: The Proposed Action is located on the periphery greater sage-grouse general habitat located between two active leks; the Karren Ranch Lek (approximately 9 miles southwest of the project area) and the Elk Springs Draw Lek (approximately 9.6 miles southeast from the project area). Pre-western settlement, pinyon/juniper encroachment into sagebrush parks (primary habitat used by sage-grouse for nesting, brood rearing and winter foraging) throughout the resource area was maintained by periodic fires. Since settlement of the area in the early 1900's fire frequency has declined and resulted in pinyon/juniper encroachment into sagebrush parks. Pinyon/juniper encroachment into the project area has resulted in habitat that possesses only marginal utility for sage-grouse at the present time. The proposed application of mechanically removing pinyon/juniper habitat will provide an appropriate means to restore seasonal utility of this sagebrush by enhancing the herbaceous understory for forage and redevelopment of suitable sagebrush canopies for nesting as per Washington Office IM 2012-043 and IM 2011-138.

Nest habitat suitability and foraging by brewer's sparrow in the project area is potentially limited by the encroaching pinyon/juniper habitat. Removal of encroaching woodlands by mechanical means would result in the improvement sagebrush density and understory for foraging in a short period of time.

Rock outcrops and mature components of PJ which may provide temporary daytime roosts for small numbers of bats are limited in the immediate vicinity of the project area. There are no underground mines or known caves or unoccupied buildings in the vicinity of the project area. Mechanical removal of the encroaching pinyon/juniper woodlands would have no effect on bat species.

Bald eagle foraging use is dispersed and opportunistic across the entire White River Resource Area. Although nesting and roosting areas are within 2 miles of the project area the minimally invasive and short term nature of the project is not anticipated to have any conceivable influence on local bald eagle populations.

Due to the relatively rarity of ferruginous hawks in the resource area, small size of the Proposed Action and lack of prairie dog towns in the vicinity, it is unlikely that the Proposed Action would have any conceivable influence on ferruginous hawks.

The nearest known goshawk nest is 37 miles from the project area and the extensive aspen and pinyon/juniper woodlands that are needed to support nesting activities of these birds are not located within the vicinity of the project area. The removal of low density and relatively young pinyon/juniper would have no influence on goshawks.

Cumulative Effects: The mechanical removal of low density young age class pinyon/juniper woodlands in an area with little development will not have any cumulative impact of any special status species.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: Directly, failure to implement the Proposed Action would allow progressive successional advancement of an increasing tree component to the landscape. Indirectly, the No Action Alternative would forego the opportunity to add incrementally to the extent and distribution of suitable sage-grouse habitats and Brewers sparrow habitat throughout the resource area.

Cumulative Effects: Failure to implement the Proposed Action would result in the cumulative loss of sagebrush and increase in pinyon-juniper woodland habitat. Sagebrush parks provided nesting and foraging areas for several special status species that occur in the resource management area.

*Mitigation:* None.

*Finding on the Public Land Health Standard for Threatened & Endangered species:* The project area is currently meeting the Land Health Standard. The advancing age of sagebrush steppe habitats in the vicinity of the Proposed Action are not considered inconsistent with normal successional patterns. However, in the absence of periodic fire regime in the project area, the sagebrush park will continue become more wooded causing a decrease in the area's ability to support sagebrush obligate species.

## **CULTURAL RESOURCES**

*Affected Environment:* The proposed project area was inventoried in 2007 for a larger proposed project that would have involved prescribed burning. A number of sites and isolated finds were identified during the inventory and appropriate mitigation measures were put in place to protect any wooden structures such as log cabins or brush fences. The current project lay out places all log or built structures outside the mechanical treatment area. The isolated finds were left inside the treatment area on the assumption that they are limited surface manifestations with no subsurface components.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: All constructed resources such as cabins and brush fences have been avoided by project design. However, increased human activity in the area could result in impacts from unlawful collecting of artifacts and/or parts of the structures.

Impacts to what are currently classified as Isolated Finds are not expected to result in impacts unless previously undetected resources or artifacts are present. Direct impacts could involve crushing of features or artifacts. Further, if soil is disturbed during tree mulching there is the potential to displace any previously unidentified features or artifacts.

Cumulative Effects: Any loss that might occur as a result of project implementation would result in an irreversible and irretrievable loss of cumulative data from the regional archaeological data base. The loss might be limited due to the currently known extent of resources present but, the data loss is cumulative in nature.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There would be no known construction related impacts to cultural resources under the No Action Alternative though indirect impacts from visitation and unlawful collection might still occur. There are no likely impacts to previously undetected subsurface remains under this alternative.

Naturally occurring erosion and decay process would continue at the same rate as they have been occurring resulting in a slow loss of scientific data.

Cumulative Effects: The slow naturally occurring loss of data due to weathering and decay does result in an irreversible and irretrievable loss of data to the regional database. Scientific examination could potentially limit the data loss.

*Mitigation:* None.

## **PALEONTOLOGICAL RESOURCES**

*Affected Environment:* The proposed project is located in what are mapped as two geologic units: the Browns part formation of the Miocene-Pliocene age and the Minturn of the Pennsylvanian age (Tweto 1979). The BLM WRFO has classified the Browns Park Formation as a Potential Fossil Yield Classification (PFYC) 5 as it is known to produce scientifically noteworthy fossils (c.f. Armstrong and Wolny 1989). The Minturn has been classified as a PFYC 4 formation which indicates that it is known to produce scientifically noteworthy fossil (Armstrong and Wolny 1989).

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: If it should happen that the cutter head of the hydroax or other cutting and mulching machinery makes contact with the ground surface and disturbs the soil deep enough to make contact with the underlying sedimentary rock, there is a potential to impact scientifically noteworthy fossil resources. Hand thinning and cutting or mowing with a brush hog is unlikely to result in impacts to fossil resources. Impacts would depend on the depth of soil cover, if any, and extent to which the machinery penetrates the soil with cutting blades. Increased erosion due to soil disturbance from equipment could potentially result in exposure of fossil bearing rocks which would then be subject to weathering and erosion which could potentially result in the loss of fossil resources and their context. However, the potential for impacts from erosion are expected to be extremely limited and may not impact fossils at all.

Increased human presence and activity in the area could result in unlawful collecting of fossil specimens, should any be exposed at the surface.

Cumulative Effects: There is a potential for an irreversible and irretrievable loss of paleontological data from the regional paleontological database if the underlying sedimentary rock is exposed or impacted by machinery during the project. It is likely that unless a large fossil or concentration of smaller fossil remains are encountered that the loss would be limited.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There would not be any project related impacts to known or unknown fossil resources under the No Action Alternative. The naturally occurring erosion processes that have been occurring would continue to occur as a very slow rate. Larger fossil might be exposed and weathered and smaller fossils could potentially be exposed and/or lost during the erosion and weathering process.

Cumulative Effects: There is the potential for very slow, natural erosion and weathering related loss of paleontological data that would be irreversible and irretrievable in nature. The loss rate would likely be much slower than if disturbance were to expose fossil bearing formations. Occasional prospecting by interested paleontologists could recover enough data to limit the overall data loss.

*Mitigation:* None.

## VISUAL RESOURCES

*Affected Environment:* The Proposed Action is located in an area with a VRM II classification. The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes to the visual character must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The landscape characteristics of the project area generally consist of panoramic, flat to rolling topography with dense sagebrush and grasses and pinyon/juniper along the low ridgelines. The pinyon/juniper is scattered and encroaching down into the grass and sagebrush bottoms. The more dominant visual elements are color and texture. The colors are the muted shades of green of sagebrush and pinyon/juniper mixed with some minimal tans and grays of the soils and rocks. The texture of the landscape comes from the aggregation of the sagebrush and grasses mixed with pinyon/juniper to form a somewhat continuous surface pattern. Form and line are the weaker visual elements of this landscape due to the lack of dramatic change in topography and the lack of any noticeable linear contrasts in color, texture, or un-natural modifications to the landscape beyond the roads. Moffat County Road 14 travels through the southern portion of the project area for approximately 1.4 miles and is the primary area where the general public may view the project and this particular landscape. There is also an un-named road on the west side of project that currently receives a low amount of use by the general public.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Mechanical vegetation treatment of 391 acres of pinyon/juniper with a hydroax, mower, brush beater, bull hog, or chainsaw or a combination of these equipment types will modify the dominant visual elements of the existing character of the landscape. The resulting treated vegetation will be noticeable along some portions of Moffat County Road 14 for the first year or two as cut and scattered vegetation and/or masticated debris with red needles not more than 18 inches in height. This treated vegetation will after a year or two begin to blend with the surrounding landscape and be less noticeable. The removal of the pinyon/juniper will shift the color element to sagebrush-green being the primary color of the landscape in the project area. The removal of the pinyon/juniper will also modify the texture of the landscape resulting in a more continuous surface pattern of sagebrush. The creation of mosaic and edge effects for improved wildlife habitat will blend this activity with the existing landscape and should not create any noticeable effect to the line element or where the eye follows when perceiving abrupt differences in form, color, or texture. These weak changes to the landscape may be noticed by people who are traveling Moffat County Road 14 for a distance of 1.4 miles, which is primarily used by local ranchers and recreationalists in the summer and fall months. This vegetation treatment may only be noticed by the casual observer during treatment activities and a year or two after the project has been completed.

Overall, the Proposed Action and associated management activities will be seen and noticed for the first year or two after project completion, but will not attract the attention of the casual observer. This perceived impact therefore is relatively short in duration and temporary in nature. Changes to the visual landscape character will repeat the basic elements of form, line, color, and texture found in the predominant existing natural features of the characteristic landscape. Therefore this project will overall meet the VRM II classification objectives.

Cumulative Effects: Combined with other management activities in the area, the Proposed Action may contribute to an impacted visual landscape during the first year or two of the project with no long-term impacts anticipated to the visual resource.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: Because no mechanical vegetation treatment would occur under this alternative, the VRM II classification objectives would be met.

Cumulative Effects: None identified.

*Mitigation:* None

## **FIRE MANAGEMENT**

Affected Environment: The Proposed Action is within the D1 Blue Mountain/Dinosaur boundary fire management polygon. Suppression constraints within this polygon do not allow for mechanized line construction and restrict suppression traffic to existing roads and trails to the maximum extent possible. The target area is mountain/Wyoming Big Sagebrush/grass and pinyon/juniper vegetation stratum which is classified as a fire regime condition class (FRCC) III,

which is a vegetation strata that experiences infrequent (>35 year fire return intervals) fire return intervals that remove > 75 percent of the vegetation. The target area has missed approximately 1 fire return interval, and is rated as a condition class II due to heavier fuel loading, associated with pinyon/juniper type conversion of sagebrush communities, and departure from fire frequency. Since 2000 there have been eight fires within three miles of the project site. In 2002 the Bear fire burned approximately 4,754 acres less than one mile from the project site.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: In the event of a wildfire, the Proposed Action will result in less fire intensities, post treatment, due to the removal of pinyon/juniper and a healthier distribution of sagebrush. The treated areas will be dominated by grasses and forbs, and if they should burn, the intensities would be much lower than under the current situation. Suppression activities would be safer, more effective, and less costly than in the current situation with the heavier more continuous fuels. Post treatment the Badger Flat treatment area would move from a FRCC of III to a FRCC of I and II. This would resemble the vegetation type and structure of the potential natural vegetation pre-settlement with a natural mix of age classes and varying levels of canopy closure. A natural mix of age classes is one of the fire management objectives of the Northwest Colorado Program Area Fire Management Plan.

Cumulative Effects: This treatment combined with the Bear fire scar and the Wasson Draw treatment aids in reducing the FRCC in the vicinity. Future wildfire scars and fuels treatments similar to the project area will assist in creating a natural fuels transition, separating important sagebrush communities on Blue Mountain from Dinosaur National Monument. This may enhance the National Park Service's ability to implement their fire management objectives so as to not conflict with BLM priorities.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There will be no change from the current condition. The Badger Flat unit would likely progress to an FRCC IV. Pinyon/juniper encroachment would continue to reduce sagebrush communities. A wildfire impacting the area would likely be more difficult to control and thus more expensive.

Cumulative Effects: Vegetation treatments, both mechanical and prescribed fire, enhance the BLM's ability to manage fire across the landscape. This ability allows the agency to protect resources it deems a priority. Without these fuel bed transitions, it may be increasingly difficult to both allow fire to play a natural role within this polygon and protect natural resources.

*Mitigation:* None.

## FOREST MANAGEMENT

*Affected Environment:* The Proposed Action is located within both productive and dry exposure stand classes of pinyon/juniper woodlands as defined by a survey performed by White River Field Office personnel from 2003-2005. Productive exposure types occur on primarily lower gradient slopes and on north and east aspects. Growth rates are higher in these areas due to soil features which allow for effective use of precipitation. Dry exposure types occur when slopes and soil features do not allow for the retention of precipitation. The growth rates within these areas are low and most generally the trees present are mature, but young trees can be present.

These habitat types are further broken down based on the age class of the stand. In this case the affected stands are both mature and young. Mature pinyon/juniper trees on productive exposure establish themselves as the dominant plant community on the site. Young pinyon/juniper trees are a component of the plant community or encroach into sagebrush and mountain shrub communities in the absence of reproduction through time and will eventually establish as the dominant plant community. Mature stands are valuable locally as a source of fire wood. Encroachment sites of young pinyon/juniper trees are valuable for Christmas tree harvest and posts for fence construction.

### *Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Approximately 14.5 acres of a mature juniper/pinyon stand would be affected by the mechanical removal alternative, the remainder of the treatment would only affect encroaching young trees. The removal of pinyon/juniper encroachment would not affect the woodland base or deny woodland products for the general public with exception of a few pinyon Christmas trees and juniper fence posts. By removing encroaching trees and creating a mosaic/edge effect to the environment it will help decrease fuel loads, further protecting the remaining mature woodlands from a stand replacing wildfire.

Cumulative Effects: Mechanical removal of pinyon/juniper would set back pinyon/juniper woodland establishment from between 50 and 70 years, and development of mature woodlands by 200 to 300 years if there are no follow-up treatments.

### *Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: Under this alternative there would be no mechanical removal of pinyon/juniper woodlands. Christmas trees and fence posts would still be available for the public to use.

Cumulative Effects: The proposed area for pinyon/juniper removal would develop into mature stands over a period of 150 to 250 years. The area would increase in cover and density causing sagebrush to be smothered out over a period of time. With the increase to cover and density the area could potentially burn in a stand replacing wildfire with the likely loss of the current mature pinyon/juniper stands.

*Mitigation:* None.

## RECREATION

*Affected Environment:* The Proposed Action occurs within the White River Extensive Recreation Management Area (ERMA). The BLM manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The project area falls within the Recreation Opportunity Spectrum (ROS) classes of both Semi-Primitive Motorized (SPM) for approximately 262 acres and Roaded Natural (RN) for approximately 129 acres. The SPM physical and social recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. The SPM recreation experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk. The SPM portion of the Proposed Action is located approximately 1000 feet north of Moffat County Road 14.

The RN physical and social recreation setting is typically characterized by a natural environment with evidence of rural residences and agricultural land uses. Resource manipulations are noticeable and are harmonious with the natural environment, but substantial modifications may be encountered. The areas provide about equal opportunities for interaction with other visitors and to experience isolation from the sights and sounds of man. The RN portion of the proposed project is located along Moffat County Road 14, which has a 1000' buffer of RN- ROS class on either side of this road.

The primary recreational use of this area is a moderate amount of big game hunting in the fall and associated dispersed camping. During the summer months there is a low amount dispersed camping, recreational driving, and OHV use. There is one Special Recreation Permit (SRP) for commercial big game hunting that consists for the entire Game Management Unit 10, and there are 11 SRPs for commercial mountain lion hunting which are issued for the entire White River Field Office.

### *Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Because the vegetation treatment is expected to take place during the summer months in a relatively small area (391 acres), it is expected to have very little impact on recreational activities, opportunities, or visitors to this area. The reduction of hazardous fuels should improve visitor safety in this area. The proposed project's objectives of retaining valuable forage species for sage-grouse and wildlife, and the creation of mosaic and edge effects for improved wildlife habitat, should have a beneficial long-term effect on the primary recreational use of this area which is big game hunting. Considering the Proposed Action and associated activities, the ROS classes of SPM and RN will be met and retained.

Cumulative Effects: Combined with other management activities in the area, the Proposed Action may overall benefit recreational opportunities or experiences by increasing wildlife habitat and forage. This may indirectly positively affect hunting opportunities and success rates in this area.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: Because there would be no vegetation treatment occurring or other management activities taking place under this alternative there would be a very minimal impact to recreational activities in this area. Because there would be no increase and potentially a decrease in wildlife habitat and forage, this may decrease hunting opportunities or success rates in this area.

Cumulative Effects: None identified.

*Mitigation:* None.

## **ACCESS AND TRANSPORTATION**

*Affected Environment:* The Proposed Action occurs within an area of the field office designated as open seasonally. The area is closed to off road cross-country travel from October 1 through April 30 of each year; travel is limited to existing roads, trails and ways only during this period. Primary access to the project site is via Moffat County Road 14. Moffat County Road 14 is a gravel road and primary users are local residents and area ranchers. Some recreational traffic occurs primarily in the fall associated with big game hunting with a low amount of summer recreational use. There is also a low amount of administrative travel intermediately throughout the year.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Depending on the method selected for treating the vegetation, there may be a slight to very slight increase in traffic on Moffat County Road 14 during the project work. There are no traffic delays or restrictions proposed or expected and therefore normal traffic flows will not be impacted by the Proposed Action. Access to this general area will not be restricted. However, in specific areas where the vegetation is actively being treated the public will not be able to enter in order to protect public safety.

Cumulative Effects: Combined with other management activities in this other, this project should have no cumulative effect on transportation and public access.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: Because no vegetation treatment or management activities would occur, there would be no impact to access or transportation.

Cumulative Effects: None identified.

*Mitigation:* None.

**REFERENCES CITED:**

Armstrong, Harley J., and David G. Wolny

Paleontological Resources of Northwest Colorado: A Regional Analysis. Museum of Western Colorado, Grand Junction, Colorado.

Collins, Gary D., and Lorraine L. Poulson

2007 A Cultural Resource Inventory for the Proposed Three Springs Treatments Badger Flat Prescribed Fire Area, BLM-White River Field Office Moffat, County, Colorado. Bureau of Land Management, White River Field Office, Meeker, Colorado.

Environmental Protection Agency (EPA).

2013 Currently Designated Non-Attainment Areas for all Criteria Pollutants. Updated as of December 14, 2012. Available online at: <http://www.epa.gov/oaqps001/greenbk/ancl.html>. Accessed January 18, 2013.

Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

**TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED:**

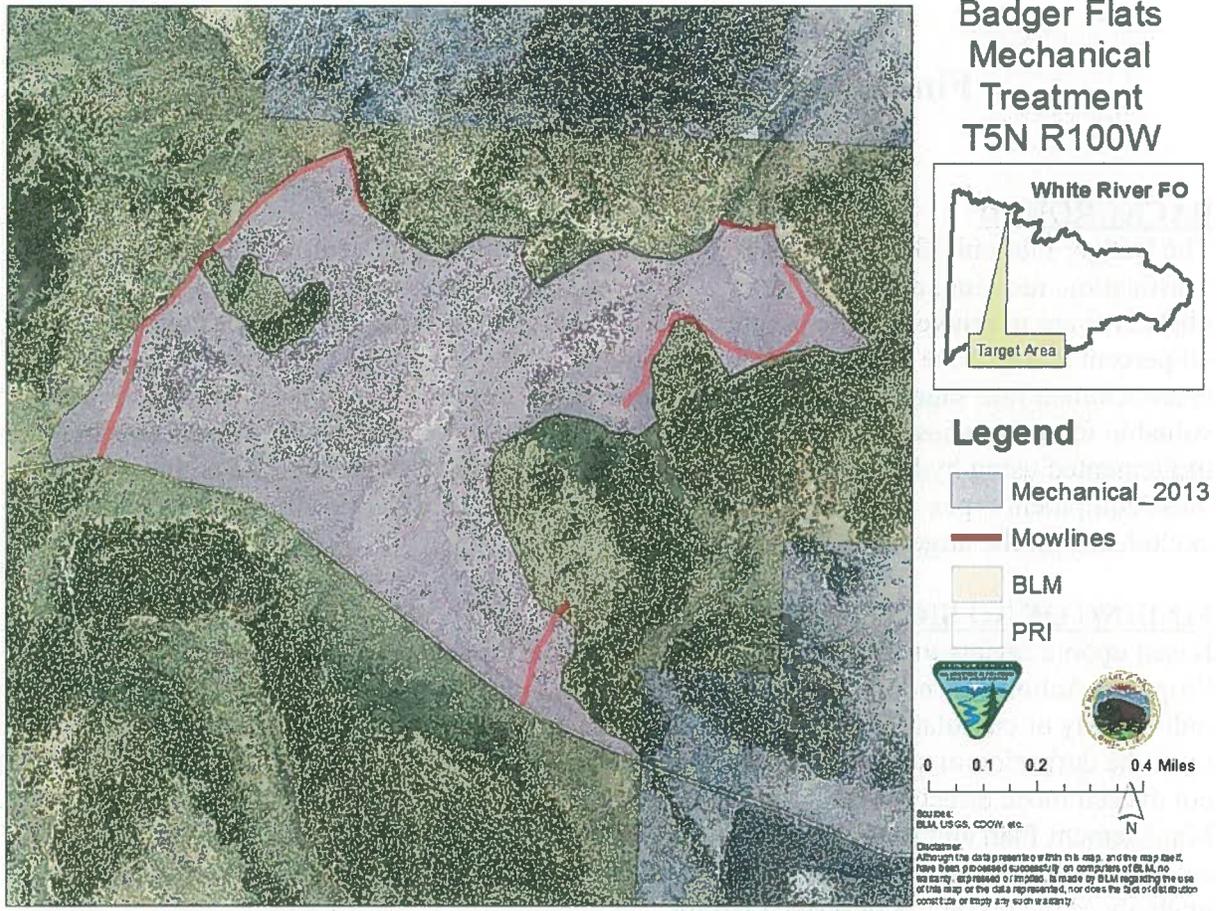
**INTERDISCIPLINARY REVIEW:**

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>	<b>Date Signed</b>
Bob Lange	Hydrologist	Air Quality; Surface and Ground Water Quality; Floodplains, Hydrology, and Water Rights; Soils	4/1/2013
Baili Foster	Ecologist Intern	Areas of Critical Environmental Concern; Special Status Plant Species	1/24/2013
Heather Woodruff	Rangeland Management Specialist	Forest Management	2/13/2013
Michael Selle	Archaeologist	Cultural Resources; Native American Religious Concerns; Paleontological Resources	1/23/2013
Matt Dupire	Rangeland Management Specialist	Invasive, Non-Native Species; Vegetation; Rangeland Management	3/17/2013
Laura Dixon	Wildlife Biologist	Migratory Birds; Special Status Animal Species; Terrestrial and Aquatic Wildlife; Wetlands and Riparian Zones	3/1/2013

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>	<b>Date Signed</b>
Aaron Grimes	Outdoor Recreation Planner	Wilderness; Visual Resources; Access and Transportation; Recreation,	2/14/2013
Scott Nilson	Fuels Specialist	Fire Management; Hazardous or Solid Wastes	3/4/2013
Paul Daggett	Mining Engineer	Geology and Minerals	3/6/2013
Stacey Burke	Realty Specialist	Realty	3/6/2013
Melissa J. Kindall	Range Technician	Wild Horse Management	1/31/2013
Scott Nilson	Fuels Specialist	Project Lead – Document Preparer	4/2/2013
Heather Sauls	Planning & Environmental Coordinator	NEPA Compliance	5/29/2013

**ATTACHMENTS:**

Figure 1: Map of the Project



**U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
220 E Market St  
Meeker, CO 81641**

**Finding of No Significant Impact (FONSI)  
DOI-BLM-CO-110-2013-0037 EA**

**BACKGROUND**

The Badger Flat unit (391 acres) is predominately sagebrush with encroaching pinyon/juniper. Mastication, mowing, or hand thinning will be conducted to achieve resource objectives. The objectives are to rejuvenate the sagebrush community, limit mortality of sagebrush to less than 40 percent and remove approximately 100 percent of the invading pinyon/juniper trees to limit encroachment into sage parks, increase the understory expression/composition, and to retain valuable forage species for sage-grouse, wildlife and livestock. Mechanical treatments may be implemented using hydroax, mower, brush beater, bull hog, or chainsaw or a combination of these equipment types. Sensitive sites that were identified in CO-110-2007-089-EA have been excluded from the target area.

**FINDING OF NO SIGNIFICANT IMPACT**

Based upon a review of the EA and the supporting documents, I have determined that the Proposed Action will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27 and do not exceed those effects as described in the White River Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (1996). Therefore, an environmental impact statement is not required. This finding is based on the context and intensity of the project as described below.

**Context**

The project is a site-specific action directly involving BLM administered public lands that do not in and of itself have international, national, regional, or state-wide importance. The White River Fire Management Plan, which was developed as a required action of the White River Resource Management Plan, identifies areas where hazardous fuels reduction take place to protect, maintain and enhance ecosystems, economic values, and multiple resource management programs. The Proposed Action was developed to comply with these two plans.

**Intensity**

The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this Proposed Action:

**1. Impacts that may be both beneficial and adverse.**

Greater sage-grouse habitat will likely improve as pinyon/juniper habitat is mechanically reduced in order to restore seasonal utility of this sagebrush by enhancing the herbaceous understory for forage and redevelopment of suitable sagebrush canopies for nesting as per Washington Office IM 2012-043 and IM 2011-138.

Post treatment the Badger Flat treatment area would move from a FRCC of III to a FRCC of I and II. This would resemble the vegetation type and structure of the potential natural vegetation pre-settlement with a natural mix of age classes and varying levels of canopy closure. A natural mix of age classes is one of the fire management objectives of the Northwest Colorado Program Area Fire Management Plan.

Adverse impacts are expected to be minor. Public access may temporarily be limited during the implementation phase. Two types of woodland products, Christmas trees and juniper posts, will be slightly reduced for public consumption across the 391 acres of the treatment area.

**2. The degree to which the Proposed Action affects public health or safety.**

There would be no impact to public health and safety.

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

There are no significant historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas nearby.

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

Heavy equipment or chain saw use will have a very low effect on the human environment. The hazardous fuels reduction program is in wide use in the WRFO and across the nation and is not highly controversial.

**5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk.**

No highly uncertain or unknown risks to the human environment were identified during analysis of the Proposed Action.

**6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.**

The Proposed Action neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration. The process for mechanical fuels treatments is outlined in the 1997 WRFO RMP (pages 2-12).

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

The Proposed Action is not related to any other actions that are currently being considered.

**8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.**

The project area for mechanical treatment was modified slightly from the area originally analyzed for prescribed fire in order to remove cultural site concerns.

**9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973.**

No endangered or threatened species or its habitat will be adversely affected as a result of this Proposed Action.

**10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.**

Neither the Proposed Action nor impacts associated with it violate any laws or requirements imposed for the protection of the environment.

**SIGNATURE OF AUTHORIZED OFFICIAL:**



Field Manager

**DATE SIGNED:**

05/30/13

**U.S. Department of the Interior  
Bureau of Land Management  
White River Field Office  
220 E Market St  
Meeker, CO 81641**

**DECISION RECORD**

**PROJECT NAME:** Badger Flat Mechanical Treatment

**ENVIRONMENTAL ASSESSMENT NUMBER:** DOI-BLM-CO-110-2013-0037-EA

**DECISION**

It is my decision to implement the Proposed Action, as mitigated in DOI-BLM-CO-110-2013-0037-EA, authorizing this hazardous fuels reduction project at Badger Flat.

**MITIGATION MEASURES**

All mitigation measures have been incorporated as design features of the Proposed Action.

**COMPLIANCE WITH LAWS & CONFORMANCE WITH THE LAND USE PLAN**

This decision is in compliance with the Endangered Species Act and the National Historic Preservation Act. It is also in conformance with the 1997 White River Record of Decision/Approved Resource Management Plan.

**ENVIRONMENTAL ANALYSIS AND FINDING OF NO SIGNIFICANT IMPACT**

The Proposed Action was analyzed in DOI-BLM-CO-110-2013-0037-EA and it was found to have no significant impacts, thus an EIS is not required.

**PUBLIC INVOLVEMENT**

External scoping was conducted by posting this project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 1/29/2013. No comments or inquiries were received.

**RATIONALE**

Analysis of the Proposed Action has concluded that there are no significant negative impacts and that it meets Colorado Standards for Public Land Health. This vegetation treatment will improve greater sage-grouse habitat by substantially reducing the pinyon/juniper component in sagebrush communities found within the project area. The project will also result in a reduced fuel loading and risk of significant long term ecosystem degradation caused by a large scale wildfire event.

**ADMINISTRATIVE REMEDIES**

Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the decision, a Notice of Appeal must be filed in the office of the Authorized Officer at White River Field Office, 220 East Market St., Meeker, CO 81641 with copies sent to the Regional Solicitor, Rocky Mountain Region, 755 Parfet St., Suite 151, Lakewood, CO 80215, and to the Department of the Interior, Board of Land Appeals, 801 North Quincy St., MS300-

QC, Arlington, VA, 22203. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals at the above address within 30 days after the Notice of Appeal is filed with the Authorized Officer.

**SIGNATURE OF AUTHORIZED OFFICIAL:** *Hunt E. Wallis*  
Field Manager

**DATE SIGNED:** *05/30/13*