

**U.S. Department of the Interior  
Bureau of Land Management**

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**Environmental Assessment**

**Clay Basin/Browns Park Sagebrush Treatments/Fuel Reduction  
Projects**

**DOI-BLM-UT-G010-2014-0111-EA**

**PREPARING OFFICE**

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**Environmental Assessment  
Clay Basin/Browns Park Sagebrush  
Treatments/Fuel Reduction Projects  
DOI-BLM-UT-G010-2014-0111-EA**

**Prepared by  
U.S. Department of the Interior  
Bureau of Land Management  
Vernal Field Office  
Vernal, Utah**

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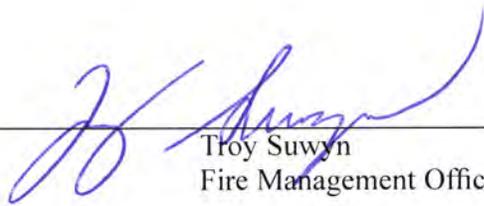
# Finding of No Significant Impact

## Environmental Assessment DOI-BLM-UT-G010-2014-0111-EA

Based on the analysis of potential environmental impacts Clay Basin/Browns Park Sagebrush Treatments/Fuels Reductions Projects DOI-BLM-UT-G010-2014-0111-EA, I have determined that the proposed action will not have any significant impacts on the environment and an environmental impact statement is not required.

### Signatures:

Approved by:



Troy Suwyn  
Fire Management Officer

7/29/2014

[Date]

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# Decision Record

## Decision

Based on my understanding of the information contained in the *Clay Basin/Browns Park Sagebrush Treatments/Fuel Reduction projects EA* and my subsequent finding of no significant impact, it is my decision to authorize the actions needed to restore the sagebrush vegetation type, and reduce fuel loads as set out in DOI-BLM-G010-2014-0111 EA.

The following actions will be realized:

- Apply mastication and lop & scatter treatments to the Clay Basin, Home Mountain, and Red Creek Chaining project areas.
- Apply ongoing weed control efforts following treatment.

## Rationale for Decision:

My decision to authorize implementation of the mastication and lop and scatter treatments to the Clay Basin, Home Mountain, and Red Creek Chaining project areas as described in the proposed action alternative will not result in any undue or unnecessary environmental degradation to wilderness characteristics, threatened or endangered species, cultural resources, or matters pertaining to Native American religious freedoms or their customs. Realization of the proposed action is in conformance with the existing Vernal RMP (2008) and is consistent with the Uintah County Land Use Plan.

The No Action Alternative was not selected because that alternative would not meet the stated purpose and need of restoring sagebrush vegetation and reducing the hazardous fuel loads.

SHPO concurrence for the Cottonwood/Home Mountain Bullhog project area is not anticipated to be received until next year, so a decision on that project has been deferred from this Decision. A decision for that project will be issued next year, anticipated to be based on the DOI-BLM-G010-2014-0111 EA analysis, after the SHPO concurrence has been completed.

Implementation of the proposed action will result in the improvement towards a vigorous and healthy sagebrush vegetative type. The treatment will result in the following positive result:

1. Reductions of the existing hazardous fuel loads and decrease the risk of unplanned fire events.
2. There would be increased forage for both livestock, big game species and occupied sage-grouse habitat.
3. Habitat values for sagebrush related keystone species would be improved.

## Protest and/or Appeal Provision:

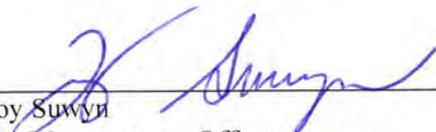
The decision or approval may be appealed to the Interior Board Of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR 4.21. Within 30 days of receipt of the decision, an appeal must be filed to: Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington,

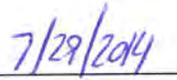
Virginia, 22203. A copy of the notice of appeal must also be filed in the Vernal Field Office at 170 South 500 East; Vernal, Utah, 84078, as well as with: Office of the Solicitor, 125 South State Street, Suite 6201, Salt Lake City, Utah, 84138. Public notification of this decision will be considered to have occurred on , 07/21/2014. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition for stay pursuant to 43 CFR 3150.2(b), the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied.
2. The likelihood of the appellants success on merits.
3. The likelihood of irreparable harm to the appellant or resources if the stay is not granted, and
4. Whether the public interest favors the granting of the stay

**Authorizing Official:**

  
Troy Suwyn  
Fire Management Officer

  
Date

# **Chapter 1. Introduction**

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## **1.1. Introduction**

The Environmental Assessment (EA) has been prepared to analyze the Clay Basin/Browns Park Sagebrush Treatments/Fuel Reduction projects. The EA is an analysis of potential impacts that could result with the implementation of a proposed action or no action alternative. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any “significant” impacts could result from the analyzed actions. “Significance” is defined by NEPA and is found in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of “Finding of No Significant Impact” (FONSI). A Decision Record (DR), which includes a FONSI statement, is a document that briefly presents the reasons why implementation of the selected alternative will not result in “significant” environmental impacts (effects) beyond those already addressed in the Vernal Resource Management Plan (2008). This document provides the environmental assessment for the Clay Basin/Browns Park Sagebrush Treatments/Fuel Reduction projects.

## **1.2. Identifying Information:**

### **1.2.1. Location of Proposed Action:**

*Location:*

Daggett County, Vernal, Utah

Township 3 North, Range 23 East, Sections 14, 15, 24; Township 3 North, Range 24 East, Sections 16–35; Township 3 North Range 25 East, Sections 30; Township 2 North, Range 24 East, Sections 8–11, 14–16 SLB&M.

### **1.2.2. Name and Location of Preparing Office:**

Lead Office - Vernal Field Office and number #DOI-BLM-G010-2014-0111 EA.

## **1.3. Purpose and Need for Action:**

The purpose of the Clay Basin/Browns Park Sagebrush Treatments/Fuel Reduction projects is to provide for increased quality habitat for sage grouse, mule deer and to reduce the buildup of hazardous fuels that have accumulated over the last several decades in order to prevent the potential for large catastrophic fire events, and to restore natural fire regimes. The proposed action is needed to restore the project areas.

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## **Chapter 2. Proposed Action and Alternatives**

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This EA focuses on the Proposed Action and No Action Alternatives. The No Action Alternative is considered and analyzed to provide a baseline for comparison of the impacts of the proposed action.

## **2.1. Description of the Proposed Action:**

The proposed action involves removing encroaching Pinyon-Juniper (P-J) from sagebrush ecosystems along with reducing hazardous fuels. Two treatment methods would be used to treat a total of 3,695 acres.

The first method is reducing approximately 525 acres of hazardous fuels through use of the Bullhog mastication device. The Bullhog methodology involves the chipping of the P-J trees with a reciprocating drum mounted on a rubber tired front end loader machine. The mastication treatment results in bark, sawdust, and wooden chips being left on the ground after treatment is completed. In the project area, the P-J trees have increased in overall density and encroached into the sagebrush habitat type, with an average density of 306 stems/acre. One bullhog areas has been identified within the project area; Cottonwood/Home Mountain.

The second methodology involves the reduction of approximately 3,170 acres of hazardous fuels by the removal of Pinyon-Juniper trees through a lop and scatter type of removal. This involves the cutting of the P-J trees by hand with a chainsaw. The resulting volume of slash would be reduced to a level of one (1) feet, and bucked. Remaining stumps would be no greater than 1" above level ground. In the project area, the P -J trees have increased in overall density and encroached into the sagebrush habitat type, with an average density of 200 stems/acre. Three Lop & Scatter areas have been identified within the project area; Clay Basin, Home Mountain, and Red Creek Chaining.

The vegetation in the project area is comprised of sagebrush that has been encroached by P-J trees. The sagebrush vegetative type has been designated as a Fire Regime Group III (Fire return interval 35-100 years). The increased amount of P-J trees has resulted in a change in the Fire Regime Condition Class from a Class I to a Class II Condition Class. (Vernal Fire Management Plan, 2005) The departure from a Class I Condition Class to a Class II Condition Class indicates that at least one cycle of the natural fire regime fire interval has been missed due to historic fire suppression efforts. The change from a Class I to Class II has resulted in an increase of the hazardous fuel loads in the project area.

No new access roads would be needed to access the project area and access would be via existing roads and trails.

The project area still has an adequate understory vegetation to protect the soil from erosion, following removal of the P-J trees. Therefore reseeding this area after treatment would not be required. The project has been designated to provide for the optimum amount of edge effect in order to increase the habitat values for wildlife, and to maintain the natural openings where the sagebrush habitat is located.

In order to prevent the establishment of weeds within the project area as a result of the proposed action, the following measures would be incorporated to reduce the risk of noxious and invasive weeds from becoming established:

1. A pre-project weed inventory would be conducted to determine the presence of noxious weeds. If weeds were found, they would be: a) mapped and reported; 2) removed or treated prior to surface disturbance; 3) and removed or treated prior to seed set when possible.
2. All vehicles and equipment would be power-washed after driving through a noxious weed infestation.
3. Staging areas would be located in weed free sites.
4. Annual monitoring of the project area for weed establishment would occur for three years following implementation of the proposed action.
5. Annual treatments of weeds would be conducted under the authority of existing Vernal Field Office Pesticide Use Proposals, and following existing policy (Vernal Field Office Surface Disturbing Weed Policy 2009).

No chemicals subject to SARA Title III in amounts greater than 10,000 pounds would be used. No extremely hazardous substances as defined in 40 CFR 355 in threshold planning quantities would be used.

ROW holders were notified of the proposed action. ROW holders will be notified before projects are implemented.

## **2.2. Description of Alternatives Analyzed in Detail:**

### **2.2.1. No Action Alternative**

Under this alternative, no restoration actions or fuel reductions would be taken. Current resource conditions and trends would continue

## **2.3. Alternatives Considered but not Analyzed in Detail**

**Prescribed Fire and Seeding:** The use of prescribed fire to remove the P-J was considered but eliminated. The rationale for not using prescribed fire was that portions of the project area lay directly adjacent to private property. The proximity of the private land constrains the application of prescribed fire due to the high risk of fire moving on to these adjacent lands. In addition the dense canopy provides for a heavy and continuous fuel load which would be extremely risky to ignite as the fire would be difficult to control without constructing fuel breaks with heavy equipment. Thus this alternative was not considered as it would not be feasible to conduct a prescribed burn under these existing conditions.

## **2.4. Conformance**

The alternatives considered in this EA are in conformance with the Vernal Resource Management Plan Record of Decision (2008). The specific citation is listed below:

P. 78 in the Fire section, Fire-4 reads: Hazardous fuel reduction activities will be implemented primarily through the use of prescribed fire and managed wildland fire. In some cases, chemical

and/or mechanical treatments will be used in conjunction with fire. Where social and/or resource constraints preclude the use of fire, mechanical and/or chemical treatments will be used.

P. 102 in the Non-WSA Lands with Wilderness Characteristics (WC), under WC-3: When compatible with the goals and objectives for management of non-WSA lands with wilderness characteristics:

- Permit vegetation and fuel treatments using prescribed fire, mechanical and chemical treatments, and other actions compatible with the Healthy Lands Initiative (HLI).

P. 133 in the Vegetation section, under Veg-5: Allow mechanical, fire, biological, cultural, or chemical methods for vegetation manipulation using the type of manipulation appropriate to and consistent with other land use objectives, and incorporating standard operating procedures and BMP's, as applicable, to protect other resources.

P. 135 in the Vegetation section, under Veg-13: Restore or rehabilitate up to 200,000 acres of sagebrush steppe over the life of the plan. Such vegetation treatment plans will consider the Western Association of Fish and Wildlife Agencies Guidelines for Management of Sage Grouse Populations and Habitats and State and Local Conservation Plans.

### **2.4.1. Relationships To Statutes, Regulations and Other Plans**

Daggett County's General Plan Update & Regional Planning Guide, as amended in 2008.: All alternatives considered in detail in the EA would be consistent with the County's general planning objectives which state:

- To insure that public lands are managed for multiple use and sustained yield.
- To insure proper stewardship of the land and natural resources necessary to ensure the health of watersheds, timber, forage, and wildlife resources.
- Management of forage, to produce and provide the desired vegetation for the watersheds, timber, food, fiber, livestock forage, and wildlife forage..

#### Federal Statues and Regulations.

- Protection Act of September 20, 1922 (42 Stat. 857; U.S.C. 594).
- Taylor Grazing Act of June 28, 1934 (48 Stat. 1269; U.S.C. 315).
- Reciprocal Fire Protection Act of May 27, 1955(69 Stat. 66; 42 U.S.C. 1856, 1856a).
- Economy Act of June 30, 1932 (47 Stat. 417; 31 U.S.C. 686).
- The Federal Land Management and Policy Act of 1976 (FLPMA) (Public Law 94-579; 43 U.S.C. 1701).
- Disaster Relief Act, Section 417 (Public Law 93-288).
- 2001 Annual Appropriations Acts for the Department of the Interior.
- United States Department of the Interior Manual (910 DM 1.3).

- 1995 Federal Wildland Fire Management Policy.
- 2001 Updated Federal Wildland Fire Management Policy (1995 Federal Wildland Fire Management Policy Update).
- 1998 Departmental Manual 620 Chapter 1, Wildland Fire Management General Policy and Procedures.
- 1998 BLM Handbook 9214, “Prescribed Fire Management” describes authority and policy for prescribed fire use on public lands administered by the Bureau of Land Management.
- September 2000, “Managing the Impacts of Wildfires on Communities and the Environment.”
- October 2000, National Cohesive Strategy goal is to coordinate an aggressive, collaborative approach to reduce the threat of wildland fire to communities and to restore and maintain land health.
- August 2001, “Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment -10 Year Comprehensive Strategy” provides a foundation for wildland agencies to work closely with all levels of government, tribes, conservation, and commodity groups and community-based restoration groups to reduce wildland fire risk to communities and the environment.

## **Chapter 3. Affected Environment:**

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### **3.1. Introduction:**

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values) of the project area as identified by the interdisciplinary team analysis and as presented in Chapter 1 of this assessment. This chapter provides the baseline for comparison of impacts/consequences described in Chapter 4.

### **3.2. General Setting**

The project area is located in the Clay Basin, Browns Park area,, approximately 65 miles north from Vernal, Utah. The project area occurs on a fairly large topographical plateau. The vegetation in the area consists of pinyon-juniper, Wyoming sagebrush, Gardner saltbush, galleta, needle and thread, Indian ricegrass, wheat grass, bottletail squirreltail, and saline wildrye. .During the analysis conducted by the interdisciplinary team, it was found that the following aspects of the environment could potentially be affected by the proposed action.

#### **3.2.1. BLM Natural Area**

BLM natural areas are non-wilderness study areas (WSA) found to have wilderness characteristics and identified within the Vernal RMP to be managed to protect, preserve, and maintain those qualities of wilderness character (i.e. appearance of naturalness, outstanding opportunities of primitive and unconfined recreation, and solitude). The Home Mountain and Cold Spring Mountain exists within the project area. The Vernal RMP (p. 101 of the ROD) specifically allows for fuels treatments within the identified BLM natural areas under decision WC-3 which states, "When compatible with the goals and objectives for management of non-WSA lands with wilderness characteristics permit vegetation and fuel treatments using prescribed fire, mechanical and chemical treatments and other actions compatible with Healthy Lands Initiative (HLI)."

Background information; the BLM evaluated 34 units for Wilderness Characteristics in 2007. Of these units a total of 17 had either recent or historic vegetation treatments which were identified by an interdisciplinary team. Of the 17 units with vegetation treatments, 12 of the treatments evaluated to retain their wilderness character with vegetation treatments not being identified as noticeable to the casual observer. Five of the units identified vegetation treatments as having noticeable intrusions to wilderness character (See 2007 inventory for Cliff Dweller, Lower Flaming Gorge, Mountain Home, Seep Canyon, and Wolf Points units.) Of the five the dominant noticeable vegetation treatment was the chaining method which involved heavy equipment dragging a chain between equipment (generally two bull dozers a) and uprooting trees along the way. In heavy or dense pinion-juniper trees, the chainings were identified as noticeable intrusions based on large piles of dead uprooted trees being left behind.

#### **3.2.2. Red Creek Watershed ACEC**

The proposal falls within the Red Creek ACEC. The Red Creek ACEC contains 26,934 acres within T3N and 2N, R23-25E in Daggett County. The relevant and important values for which the ACEC designated include watershed function, wildlife habitat, visual, and recreational resources. Ongoing watershed restoration efforts have treated approximately 5,000 acres of upland watershed in the last five years in order to reduce erosion and sediment yields within the ACEC.

### 3.2.3. Fuels and Fire Management

The project area is located within the Goslin Mountain (B9) Fire Management Unit (FMU) identified in the Vernal Fire Management Plan. The Goslin Mountain FMU calls for:

- Non-Fire Fuels Treatments

Treat 2,000 acres per decade with non-fire fuels treatment. Objectives are: achieve the desired mix of seral stages for the major vegetative types; remove the encroaching Pinyon-Juniper from the sagebrush and aspen types; provide fuel breaks in the sagebrush types to limit the size of unplanned fires; and reduce fuel loads. Chemical treatments would be utilized in conjunction with prescribed fire and mechanical treatments to achieve desired objectives, and to also control invasive species.

- Prescribed Fire

Approximately 2,000 acres per decade would be treated with prescribed fire. Objectives are: achieve the desired mix of seral stages for the major vegetative types; remove the encroaching Pinyon-Juniper from the sagebrush and aspen types, and reduce fuel loads.

Fire Regime Condition Class (FRCC) as outlined in the Forest Service Rocky Mountain Research Station technical report entitled "Development of Coarse Scale Spatial Data for Wildland Fire and Fuel Management (RMRS-87, 2004). The Healthy Forest Restoration Act adopts this classification system, known as the Fire Regime Condition Class which describes the amount of departure of an area or landscape from historic to present conditions. This departure from the natural state may be a result of changes in one or more ecosystem components such as fuel composition, fire frequency, or other ecological disturbances. As mandated by national direction, the Vernal FMP utilizes the FRCC classification system to rank existing ecosystem conditions and prioritize areas for treatment. The project area is has been designated as FRCC 2 (lands that are moderately altered from their historical range). Due to this alteration in the fire regime and corresponding change in the Fire Condition Class there has been a corresponding increase in the overall fuel loadings.

The alteration in the FRCC from a Class 1 to a Class 2 can be associated with the reduced role of fire in the ecosystem. The shift from a relatively stable or limited rate of pinyon-juniper expansion to a substantial increase in conifer establishment in both space and time is generally attributed to the reduced role of fire; introduction of livestock grazing, and shifts in climate. (Miller et al., 2008)

Fuel loadings for the project area were assessed through utilizing BLM Technical Note 430- "Guide for Quantifying Fuels in the Sagebrush Steppe and Juniper Woodlands of the Great Basin" (Stebbleton and Bunting, 2009). Based on this guide along with the research completed by Miller et al. (2005, 2008) and on site tree density measurements to determine Pinyon-Juniper stems per acre, it was determined that the project area is in a Phase 2 condition, with a current height of 15 to 18 feet for P-J, as described in the literature described above.

### 3.2.4. Invasive Plants/Noxious Weeds, Soils, and Vegetation

#### Invasive Plants/Noxious Weeds

A review of the Field Office GIS layer files shows known occurrences of the following weed species within proposed treatment areas: low whitetop (*Cardaria draba*), bull thistle (*Cirsium vulgare*), Canada thistle (*Cirsium arvense*), broadleaved pepperweed (*Lepidium latifolium*), and common mullein (*Verbascum thapsus*). All but common mullein and bull thistle are Utah state noxious weeds. The invasive weeds halogeton (*Halogeton glomeratus*) and cheatgrass (*Bromus tectorum*) occur throughout the field office and are likely to occur within the project area.

### Soils

The NRCS has developed Ecological Site Descriptions for most of the State of Utah. Ecological sites are defined by the NRCS as “A distinctive kind of land, with specific physical characteristics which differs from other types of land in its ability to produce a distinctive kind and amount of vegetation, and in its response to management”. The Ecological Sites located within the project area are:

- R035XY215UT-Semidesert Stony Loam (4 Wing Saltbush)—Red Creek Flat
- R035XY204UT-Semidesert Stony Loam (Ut. Juniper-Pinyon)-Red Creek Flat
- R047XB333UT-Upland Stony Loam (Pinyon-Utah Juniper)-Red Creek Flat
- R034XY206UT-Semidesert Gravelly Sandy Loam (Wyoming Big Sagebrush)-Red Creek Flat
- R034XY262WY-Shallow Loamy-Clay Basin
- R034XY212WY-Gravelly-Clay Basin
- R034XY250WY-Sandy
- R034AY266WY-Shallow Sandy-Clay Basin

The soils are deep, well drained soils. (NRCS Web Soil Survey 2013)

The project area vegetation is a mixture of Wyoming sagebrush and P-J. P-J has encroached into the vegetative communities, with an estimated average density of 200 stems/acre in the lop & scatter areas, and 306 stems/acre within the bullhog areas. Potential native vegetation within the project area is described by the NRCS as a mixture of sagebrush and P-J. P-J expansion into the sage-steppe habitat types would be considered part of the historic expansion described by Miller et al. 2008 and are not part of the potential native vegetative community for the project area.

### Vegetation

The project area vegetation is dominated by Wyoming sagebrush. The sagebrush community has reached a stage where sagebrush is of a single age class, mature, and quite decadent. The understory contains a viable population of perennial grasses and forbs but these species are suppressed by the dense overstory of sage and their vigor and productivity are very limited. Understory species are comprised of crested wheat, Mormon tea, black sagebrush, galleta, needle and thread, Indain ricegrass, bluebunch wheatgrass, bottlebrush squiretail, and saline wildrye.

Studies across the Intermountain West have shown substantial increases in Pinyon-Juniper since the late 1800's. (Burkhardt and Tisdale, 1976; Gedney et al 1999; Knapp and Soule 1998; Miller and Rose 1995; Soule and Knapp 2000; Tausch et al 1981). These increases were the result of both infill in mixed aged tree communities and expansion into shrub- steppe communities that appeared to have not supported trees over the last few centuries. (Miller, et al 2005) This documented expansion of P-J into the shrub-steppe community has also occurred in the project area, and has resulted in a decline in the overall cover of the shrubs, forbs, and grasses, along with a decline in the vigor, and productivity of the understory species that occur due to the inherent ability of P-J to outcompete the understory species for light, water, and nutrients.

Miller et al. (2008, 2005) have identified and described phases of woodlands development in the Intermountain West. Phases are described as:

Phase I- P-J trees are present but shrubs and herbs are the dominant vegetation that influences ecological processes on the site.

Phase II- P-J trees are co-dominant with shrubs and herbs and all three vegetation layers influence ecological processes on the site.

Phase III- P-J trees are the dominant vegetation and the primary plant layer influencing ecological processes on the site.

Using the above descriptions, and the use of the BLM Technical Note 430- "Guide for Quantifying Fuels in the Sagebrush Steppe and Juniper Woodlands of the Great Basin" (Stebleton and Bunting, 2009) along with USGS Circular 1335- Pinyon-Juniper Field Guide: Asking the Right Questions to Select Appropriate Management Actions (Tausch et al. 2009) it was determined that the project area can best be depicted as being in a Phase II condition.

### **3.2.5. Wildlife**

#### **Migratory Birds**

The Migratory Bird Treaty Act (MBTA) was implemented for the protection of migratory birds. Unless permitted by regulations, the MBTA makes it unlawful to pursue, hunt, kill, capture, possess, buy, sell, purchase, or barter any migratory bird, including the feathers or other parts, nests, eggs, or migratory bird products. In addition to the MBTA, Executive Order 13186 sets forth the responsibilities of Federal agencies to further implement the provisions of the MBTA by integrating bird conservation principles and practices into agency activities and by ensuring that Federal actions evaluate the effects of actions and agency plans on migratory birds.

The Utah Partners In Flight (UPIF) has prioritized migratory birds that are considered "most in need of conservation action, or at least need to be carefully monitored throughout their range within Utah." These are also the species "that will be most positively influenced by management as well as those species with the greatest immediate threats" according to UPIF (Parrish et al.

2002). In addition, The Utah Steering Committee has identified approximately 542,967 acres of Bird Habitat Conservation Area's (BHCA) within the VPA (USC 2005). BHCA's are intended to display areas where bird habitat conservation projects may take place, predicated on concurrence, collaboration, and cooperation with all landowners involved; however, the BHCA's have no official status. The project area is not part of any current BHCAs.

Numerous species may migrate through, or nest within the project area. This section identifies migratory birds that are classified as High-Priority birds by Partners in Flight\*, according to the habitat types found within the project area:

- *Sagebrush-Steppe*: horned lark, sage sparrow, sage thrasher\*, Brewer's sparrow\*, western kingbird, Say's phoebe, prairie falcon, green-tailed towhee\*, and Swainson's hawk.
- *Pinyon-Juniper Woodlands*: black-chinned hummingbird\*, gray flycatcher\*, gray vireo\*, Lewis' woodpecker, Clark's nutcracker, pinyon jay, western scrub jay, black-throated gray warbler, bushtit, juniper titmouse\*, northern shrike, Virginia's warbler\*, broad-tailed hummingbird\*, mountain bluebird\*, and Say's phoebe.

### **Raptors**

Some of the more visible birds in and near the project area include golden eagles, ospreys, bald eagles and red-tailed hawks. The BLM raptor database was reviewed and there are known nests within 0.5 mile of the project areas. Habitats in and around the project area provide diverse breeding and foraging habitat for raptors. These habitats include rocky outcrops, pinyon-juniper woodlands, and sagebrush shrub lands.

### **Non-USFWS Designated (Big Game Species)**

Mule deer and Rocky Mountain elk are the primary big game species found within the project area (UDWR 2008, 2010). Use typically occurs from spring to winter, when elk and deer utilize the project area for foraging, thermal cover and escape cover. Both species have an extremely variable diet and therefore live in a variety of habitats. They consume a combination of grasses, forbs, and shrubs. Food consumption is also related to the season of use. During winter, elk move to lower elevations where they are found most often on south facing slopes, primarily in P-J woodlands. Deer typically move down to lower elevation foothill areas.

Crucial elk and deer summer and winter habitat has been designated within the project area. Crucial yearlong habitat was also identified for Big Horn Sheep. These designations were made in the Vernal Field Office RMP (BLM, 2008).

Other wildlife species that are likely to occur in the project area include black bear, mountain lion, coyote, and bobcat, as well as a large variety of small mammals. Many of these species are habitat generalists, meaning they are not tightly restricted to specific habitat types. These species have not shown negative impacts by harrow operations; therefore, they will not be discussed further in this document.

### **Threatened, Endangered, Proposed or Candidate**

Greater Sage-grouse (Federal Candidate, BLM Sensitive, Utah State Sensitive)

The greater sage-grouse is an important game bird found in Utah. These birds inhabit sagebrush plains, foothills, and mountain valleys. Sagebrush is the predominant plant of quality habitat.

Factors involved in the decline in both the distribution and abundance of greater sage-grouse include permanent loss, degradation, and fragmentation of sagebrush-steppe habitat throughout the western states including Utah (Heath et al. 1996, Braun 1998). Documented severe populations declines (approximately 80%) occurred from the mid-1960s to mid-1980s. Research and conservation efforts in the last 20 years have help stabilize and recover many populations. Populations appear to have taken a slight positive turn in recent years (UDWR 2009). Utah Division of Wildlife Resources (UDWR) identifies occupied, winter and brood habitat within the project area. The project area is also a Sage Grouse Management Area (SGMA) within the state's Conservation Plan for Greater Sage-Grouse in Utah. Currently, the BLM identifies occupied habitat as Preferred Priority Habitat, which was identified within the project area (PPH, BLM IM 2012-043).

## **Chapter 4. Environmental Effects:**

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## **4.1. Introduction**

This Chapter analyzes the direct and indirect impacts that the proposed action and the no action alternative have on the resources identified in Chapter 1 and explained in Chapter 3. It also analyzes the cumulative impacts expected from other land use activities and recognizes actions that could take place in the reasonably foreseeable future.

## **4.2. Alternative A — Proposed Action**

### **4.2.1. BLM Natural Areas**

Under the Proposed Action Alternative, 962 acres of proposed lop and scatter fuels treatments would occur within the Mountain Home natural area, and 35 acres of lop & scatter treatments would occur in the Cold Springs Mountain natural area. Approximately, 280 acres of mechanical (bull hog mastication) treatment would take place within the Cold Springs Mountain natural area. During project implementation (no more than 4 weeks at any one time during phases) the sights and sounds associated with the use of the bull hog mastication machine and chainsaws would detract from opportunities for solitude and primitive or unconfined recreation in the area. Upon completion of the project, lop and scatter activities would detract from the untrammelled character of the area. However, due to the minimal amount of junipers to be removed it is not expected that noticeable wood debris piles would remain upon completion of the project. Given the experience of similar projects being performed within both natural areas, it is not expected that the proposed lop and scatter activities will be noticeable to the casual observer within 1-3 years. In the long term, the area would retain a sense of being primarily affected by the forces of nature. It is also expected that the naturalness of the area would be improved through the vegetative treatment of the encroaching pinyon-juniper encouraging the development of native biological communities.

### **4.2.2. Red Creek Watershed ACEC**

The proposal falls within the Red Creek ACEC. The Red Creek ACEC contains 26,934 acres within T3N and 2N, R23-25E in Daggett County. The management decision is to manage the watershed to continue the reduction of sedimentation into Red Creek, and the downstream Green River, by stabilizing channels and stream banks to lessen erosion, and by maintaining or increasing vegetation cover throughout the watershed and enhance wildlife habitat values. The proposed project would entail the removal of Pinyon-Juniper encroachment in sagebrush habitat within the Red Creek ACEC. The proposed treatment area is an area where the P-J trees are just beginning to encroach into the sagebrush, with an estimated density of 100 stems per acre. The removal of the encroaching trees would result in an estimated reduction of about 0.2 tons/acre/year across the 100 acres, resulting in an annual reduction of approximately 20 tons/acre/year. For comparative purposes, this would result in a reduction of about 400 tons of produced sediment over 20 years. The proposed action would reduce sedimentation into the drainages that feed Red Creek.

### **4.2.3. Fuels and Fire Management**

Fuels

With the removal of the encroaching P-J, the overall hazardous fuels reduction loadings for the project area would decline from an existing 20.56 tons/acre to 2.05 tons/acre, a reduction of an estimated 18.51 tons/acre. With the mulching and slashing of PJ, the arrangement of over 18 tons of hazardous fuels would be decreased from standing 15–18 feet in height to less than 2 feet in height. The fuel height has a direct correlation to flame length in the event of a wildland fire. Over time the fine fuels attached to pinyon and juniper trees (needles and twigs) would decompose and decrease fuel loading and flammability. The FRCC for the project area would change from the current Class II Condition Class to a Class I condition Class. The reduction in fuel loadings would be expected to result in a decline in the degree of fire severity that occurs from any unplanned fire events, as the residual shrubs, forbs, and grasses typically produce shorter flame lengths and reduced rates of spread of the flaming fire front. With an expected decline in fire severity, then the understory species are more likely to survive an unplanned fire event, which would also hasten vegetative recovery following a fire event. A hastened recovery of vegetation would also likely reduce the potential for any post fire erosion events.

#### Fire Management

The shortened flame lengths in these fuels would increase the ability of fire suppression resources in extinguishing or controlling wildland fires in the area. An additional benefit would consist of suppression resources using the treatment area as a fire break or an anchor point for strategic wildland fire tactics.

### 4.2.4. Invasive Plants/Noxious Weeds, Soils, and Vegetation

#### Invasive Plants/Noxious Weeds

Low whitetop, Canada thistle, and broadleaved pepperweed, all state-listed noxious weeds, are known to occur within proposed treatment areas for slashing. Slashing causes minimal ground disturbance and is not expected to result in population growth of existing noxious or invasive weed species. Additional weed species may occur in areas that are planned for mastication, mowing, and seeding. Across all proposed treatment areas, the management goal will be to minimize or eliminate new infestations of noxious weed species. Invasive weed species are not usually treated unless they encroach upon sensitive plant habitat.

#### Mitigation:

- Known populations of low whitetop, Canada thistle, broadleaved pepperweed, and any new noxious weed populations encountered in any proposed fuels treatment areas prior to or during treatment, will be spot treated with an upland herbicide mix (Curtail + Telar XP) prior to applying the proposed fuels-removal treatment.
- Any equipment used in treatment areas that contain noxious weed populations will be power-washed prior to being driven into another treatment area.
- The BLM will continue to practice early detection and rapid eradication to ensure new noxious weed populations do not establish as a result of project activities. Annual monitoring will continue for three years following project completion.

#### Soils

Under this alternative, encroaching P-J trees would be removed across the 3,695 acre project area. Soil erosion and sediment yields are not expected to increase, the tree removal will leave vegetative debris and litter on the surface following treatment, which will provide for protective ground cover. The understory has adequate vegetation for ground cover. Slopes in the project area are between 1 and 8 percent, which should preclude the ability of any storm generated runoff to cause any potential soil erosion issues.

### **Vegetation**

Under this alternative, there would be 3,695 acres of fuel reduction, and shrub-steppe enhancement. Encroaching pinyon-juniper trees would be removed across the 3,695 acre project area and there would be a minor amount of shrub loss from being crushed by the bullhog machine. The shrubs, grasses, and forbs are expected to increase in overall vigor and productivity as the competition with the pinyon-juniper trees for light, nutrients and water is drastically reduced. Three thousand, six hundred, and ninety five acres of shrub-steppe habitat would be maintained as shrub-steppe habitat.

The proposed action would result in a change from the current Phase II condition to a Phase I Condition as described in BLM Technical Note 430 (Stebleton and Bunting, 2009), and Miller et. al. (2008, 2005).

## **4.2.5. Wildlife**

### **Migratory Birds**

Migratory bird species may be present during the breeding/nesting season from March 1- August 31. If project operations were to take place during the breeding/nesting season, individual bird species could be impacted. Impacts may include; destruction of nests, eggs, and nesting habitat, fragmentation of habitat, reduction of habitat patch size, human presence during the breeding/nesting season can cause nest abandonment. Project activities are planned to occur after August 1st. The proposed project targets younger pinyon-juniper trees that are not older, mature stands of pinyon-junipers which are favored by most pinyon-juniper bird species. Although there may be some short-term direct impacts to pinyon-juniper bird species, the long term benefit of the project would benefit sagebrush/grassland bird species, several of which are currently identified as BLM State Sensitive Species. Impacts to nesting migratory species are not anticipated near the Red Creek Chaining Slashing due to an occupied/active Osprey nest and a timing stipulation that will be applied to project work from April 1 — August 31.

### **Raptors**

Impacts would be the same as the migratory bird section. Treatments would be planned to occur after August 31, due to an occupied/active Osprey nest located near the Red Creek Chaining Slashing area. If project activities were to occur during the nesting season (March 1 – August 31) for the rest of the project area, raptor surveys would be required prior to any project work, and no tree removal would be allowed within 0.5 mile of an occupied nest site.

### **Non-USFWS Designated (Big Game Species)**

One of the major problems facing big game populations in Utah is that many of the crucial ranges are in late successional plant community stages that are dominated by increasing densities of pinyon-juniper or other conifer trees (UDWR 2008). The tree-dominated habitats occupied

by persistent pinyon-juniper adjacent to the project area offer a place to retreat from severe weather, but offer little in the way of forage. That is why it is important to maintain mosaic patterns of habitat that can provide forage, cover, and water. Treatment of the encroachment pinyon-juniper sites can successfully return this area into a grassland/shrubland community, thus enhancing and promoting the return of sagebrush and other perennial understory species which will benefit big game habitat for the long term. Approximately 2,690 acres of crucial winter elk habitat, 3,100 acres of crucial winter deer habitat, 516 acres of crucial elk summer habitat, and 595 acres of crucial deer summer habitat were identified within the proposed project area. Both species can be found in the project year around. An increase in human presence during both the summer, and winter months could cause short term impacts (increased stress, increased energy expenditure, displacement during calving, fawning) to big game species. No treatment activities will be allowed from May 15 – June 30 during elk calving and deer fawning period, and from December 1 – April 31 during the wintering months.

Approximately, 1,122 acres of crucial year long Rocky Mountain big horn sheep habitat were also identified within the project area. Rocky Mountain bighorn sheep prefer steep rocky slopes, and may migrate from higher elevations to lower valleys in the winter. There are known sheep populations on Goslin mountain, and Bear Top mountain. Impacts from treatment activities would be similar as to elk and deer. Rocky Mountain big horn sheep diets change throughout the year. They depend on a variety of plant species. Treatment of the encroachment pinyon juniper sites can successfully return the area to a grassland/shrubland community, thus enhancing and promoting the return of shrubs (sagebrush) and perennial understory species which will benefit sheep.

#### **Threatened, Endangered, Proposed or Candidate**

Greater Sage-grouse (Federal Candidate, BLM Sensitive, Utah State Sensitive)

The BLM has designated PPH and UDWR has identified approximately 3,287 acres of occupied brood rearing, and winter habitat in the project area. There are known leks within 4 miles of the project area. Sage-grouse habitat use and requirements change through the annual flow of the seasons and life functions. Early brood-rearing (May-July) generally occurs relatively close to nest sites. As herbaceous plants mature and dry, hens move their broods to late brood-rearing (July-September) habitats which consist of more succulent vegetation. Winter habitat almost exclusively consists of sagebrush, which is the main diet of sage-grouse in the winter.

Direct impacts (mortality of individual grouse from bullhog vehicles) to sage grouse are not anticipated as these activities would not be conducted within sage grouse nesting, or early brood-rearing seasons from March 1- June 15. Indirect impacts could include temporary displacement (flushing) from foraging/cover areas. Overall, treatment activities would result in a positive impact for sage-grouse. Encroaching pinyon-juniper would be removed leaving the younger, smaller plants. The understory would be replenished with a mixture of forbs, grasses, and shrubs. In recent years the BLM has conducted similar treatments to mountain sagebrush and treatments have been considered a positive improvement to sage-grouse habitat, as they have promoted younger sagebrush and replenished understories. The proposed action conforms with the guidelines established in Utah IM-2012-043, as personal communication with UDWR (Brian Maxfield, 2014) verified that the project will benefit sage-grouse in the area.

### **4.3. Alternative B — No Action**

Under the No Action Alternative, current resource trends would continue, no tree removal would occur.

#### **4.3.1. BLM Natural Areas**

Under this alternative, there would be no treatment work within the either natural area.

#### **4.3.2. Red Creek Watershed ACEC**

Under the No Action Alternative, current resource trends would continue, Pinyon-Juniper will continue to encroach into the sage-steppe.

#### **4.3.3. Fuels and Fire Management**

##### Fuels

Under the no action alternative, there would be no removal of the PJ trees across the project area. Sagebrush obligate species: including sage-grouse are sensitive to western juniper encroachment into sagebrush communities (Miller et al 2005). Over time the PJ trees would eventually out-compete the shrubs, grasses, and forbs for water, nutrients, and light, resulting in the loss of the sagebrush habitat type in the project area. The fuel loading would continue to increase, eventually shifting the project area from the existing Condition Class II to a Condition Class III situation. In the absence of disturbance or management, the majority of these landscapes will become closed woodlands resulting in the loss of understory plant species and greater costs for restoration (Miller et al 2008). Under the no action alternative there would be a continued progression of mature sagebrush species with declining vigor and growth. The current sagebrush would become decadent and there would be an increase in the dead component in the crowns and individual species.

##### Fire Management

Eventually, an unplanned wildland fire is expected to occur, and since the fuel loadings would have increased, the severity of the fire event is also expected to be greater. The increased amount of PJ tree densities will correspondingly decrease the amount of understory plants, the loss of trees from an unplanned fire event would most likely result in increased soil erosion due to the lack of ground cover remaining following the fire event. The current vegetation mix of pinyon pine and Utah juniper with heights of 15-18 feet in a sagebrush community would result in 30 - 40 foot flame lengths if ignited. Under the no action alternative, fuels would continue to increase in height, tons/acre, and dead component. These variables would decrease the ability to suppress wildland fires. Standard procedures for wildland firefighters include not engaging direct tactics by hand on flames over four feet tall; wildland fire engine and bulldozer limits are eight feet flame lengths. These conditions increase fire behavior characteristics and minimize the ability of firefighters suppressing wildfires.

#### **4.3.4. Invasive Plants/Noxious Weeds, Soils and Vegetation**

##### **Invasive Plants/Noxious Weeds**

Known populations of low whitetop, Canada thistle, and broadleaved pepperweed within the proposed treatment area would continue to receive regular (at a maximum, annually) herbicide treatment until eradicated. Unknown noxious weed populations within the project area will either be located and treated in future years or remain unlocated and untreated, and will continue expanding in future years. The rate of invasive weed infestations would remain the same.

##### **Soils**

Under this alternative, there would be no removal of the encroaching P-J trees across the project area. Other ongoing land use issues such as livestock grazing could impact the soils resource resulting in increased soil erosion and sediment yields.

##### **Vegetation**

Under this alternative, there would be no removal of encroaching P-J trees across the project area. Under current climate conditions, conifers are likely to continue expanding into shrub-steppe plant communities. (Miller, et al. 2008) With the expected continuation of the P-J expansion, the project area is expected to move from the existing Phase II condition to a Phase III condition. In a Phase III condition, the P-J trees would have replaced the sagebrush and herbaceous understory, and the P-J would be the dominant species affecting the ecological processes on the site. There would be a long term loss of 3,695 acres of shrub-steppe habitat over time.

#### **4.3.5. Wildlife**

##### **Migratory Birds**

The expected continued encroachment of P-J into sagebrush ecosystems would continue. The understory decline is expected to only minimally affect Migratory Birds in the short term, but the long term will result in a loss of understory and habitat for birds species associated with that particular vegetation type. Migratory Bird species will utilize more area than just the 3,695 acre project area.

##### **Raptors**

Under this alternative, impacts to Raptors would be slight, as the prey base is not expected to change drastically over the short term, but long term impacts resulting from encroaching P-J would result in a loss of understory species and prey species associated with that particular vegetation type. Raptors will utilize more area than just the 3,695 acre project area.

##### **Non-USFWS Designated (Big Game Species)**

There would be a slow and steady decline in terms of forage quality, as the understory grasses and forbs decline and the P-J trees dominates the project area further.

##### **Threatened, Endangered, Proposed or Candidate**

Greater Sage-grouse (Federal Candidate, BLM Sensitive, Utah State Sensitive)

There will be a slow and steady decline in understory plants. Over time, the P-J trees will dominate as the sagebrush, understory grasses and forbs decline. There would be a decline in habitat quality for sage-grouse over time.

#### **4.4. Cumulative Impact Analysis**

“Cumulative impacts” are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions.

##### **4.4.1. BLM Natural Areas**

The Cumulative Impact area for BLM natural areas is the boundary of the Mountain Home and Cold Springs Mountain natural areas. Under the proposed action, within the 1 – 3 year window, minor noticeable impacts (tracks, dead and down trees) will occur on a total of 3,695 non-contiguous acres. After 3 years impacts with the project will have dissipated, and natural weathering processes will prove to be beneficial to the opportunity for solitude and appearance of naturalness via growth of native species within the area. Cumulative impacts in the long term will be negligible based on visual breaks by landform, and the natural weathering process. The No Action alternative would not result in an accumulation of impacts.

##### **4.4.2. Red Creek Watershed ACEC**

The cumulative impact area is the boundary of the ACEC. Within the 26,934 acre area, cumulative impacts include oil and gas and right-of-way development, recreation activities, and fire management, livestock grazing and watershed improvement activities. Recreation and fire management impacts include disturbance to soils, vegetation, and wildlife. Since 2004, The Vernal Field Office of the Bureau of Land Management has been involved with the Utah Partners for Conservation and Development to take actions to restore declining habitat conditions in the sage steppe habitat type. Approximately 50,000 acres have been treated to date, and continued actions by this group are expected to continue to occur in the future through the use of mechanical, prescribed fire, chemical applications, and wildland fire used to manage the vegetative resource. The Proposed Action would add 3,695 acres of treatments. The No Action alternative would not result in an accumulation of impacts.

##### **4.4.3. Fuels and Fire Management**

The Cumulative Impact area for Fire and Fuels is the Goslin Mountain (B9) Fire Management Unit. The Bureau of Land Management has been directed by Congress (2001 Updated Federal Wildland Fire Management Policy) to implement actions designed to reduce decades of accumulation of hazardous fuels on public lands. Future treatments in this Fire Management Unit B9 will most likely increase through the use of mechanical, prescribed fire, and wildland fire use to manage the vegetative resource. With the increased hazardous fuel reductions, this Fire Management Unit landscape will eventually be composed of different age classes of vegetation. The No Action Alternative would not result in an accumulation of impacts.

#### **4.4.4. Invasive Plants/Noxious Weeds, Soils and Vegetation**

##### **Invasive Plants/Noxious Weeds**

The Cumulative Impact area for vegetation is the Vernal Field Office. Past disturbances, both human caused and natural, have provided soil and vegetation disturbance conducive to invasion of noxious weeds. Past development, management activities, and recreational activities often employed inadequate weed prevention measures. As a result, the infestations of low whitetop, Canada thistle, bull thistle, broadleaved pepperweed, and common mullein occur within and in close proximity to the project area. Current and reasonably foreseeable actions in the CIAA that include soil or vegetation disturbance require implementation of weed prevention and mitigation practices such as those described in Chapter 4.2.2; therefore, the risk of spread of existing infestations from the above-listed actions is considered to be low. Under all alternatives, known weed infestations may provide seed source for expansion elsewhere in the project area. The risk of expansion of these infestations would be variable, depending on the location and extent of future disturbances and their proximity to existing untreated infestations.

##### **Soils and Vegetation**

The Cumulative Impact area for vegetation is the Vernal Field Office. Since 2004, The Vernal Field Office of the Bureau of Land Management has been involved with the Utah Partners for Conservation and Development to take actions to restore declining habitat conditions in the sage steppe habitat type. Approximately 50,000 acres have been treated to date, and continued actions by this group are expected to continue to occur in the future through the use of mechanical, prescribed fire, chemical applications, and wildland fire use to manage the vegetative resource. Field Office Weed Monitoring and Control program would continue to treat weed infestation areas. The Proposed Action would add 3,695 acres of treatments. The No Action alternative would not result in an accumulation of impacts.

#### **4.4.5. Wildlife**

##### **Migratory Birds and Raptors**

The Cumulative Impact area for wildlife is the Vernal Field Office. The Vernal Field Office has been involved in restoring declining habitat conditions in the sage steppe habitat type. These habitat improvement projects would typically be comprised of removing P-J encroachment from sage brush, restoration of cheatgrass infested sage brush types, and sage brush manipulation projects that have a seeding component that improves understory conditions. It is expected that habitat treatments within sage steppe habitat types would continue to occur in the future. The Proposed Action would add 3,695 acres of treatments. The No Action alternative would not result in an accumulation of impacts.

##### **Non-USFWS Designated (Big Game Species)**

The Cumulative Impact area for vegetation is the Vernal Field Office. Due to a precipitous decline in deer numbers in the early 1990's deer hunting has been limited and/or closed. Current population estimates for the deer in the North Slope Unit is 7,400, just above the population objective of 6,200. Elk numbers have risen substantially in the same time span. Current population estimates for the North Slope, 3 Corners Unit is 600, well above the objective of 500. Presently, the North Slope, 3 Corners Units are open to limited entry permits for both deer and

elk. Since present deer and elk numbers are above the established herd management objective numbers, numbers will need to be decreased until herd objective numbers are realized. As herd numbers increase, then the continued need for vigorous and productive vegetative types would increase. The Vernal Field Office has been involved in restoring declining habitat conditions in the sage steppe habitat type. These habitat improvement projects would typically be comprised of removing P-J encroachment from sage brush, restoration of cheatgrass infested sage brush types, and sage brush manipulation projects that have a seeding component that improves understory conditions. It is expected that habitat treatments within sage steppe habitat types would continue to occur in the future. The Proposed Action would add 3,695 acres of treatments. The No Action alternative would not result in an accumulation of impacts.

### **Threatened, Endangered, Proposed or Candidate**

Greater Sage-grouse (Federal Candidate, BLM Sensitive, Utah State Sensitive)

The Cumulative Impact area for Greater Sage Grouse is the Vernal Field Office. Approximately, 3,287 acres are within occupied (PPH) habitat. The Vernal Field Office has been involved in restoring declining habitat conditions in the sage steppe habitat type across the Field Office. It is expected that habitat treatments within sage steppe habitat types would continue to occur in order to prevent the further decline of sage grouse population numbers and the potential for ESA federal listing from the U.S. Fish and Wildlife Service. These habitat improvement projects would typically be comprised of removing P-J encroachment from sage brush, restoration of cheatgrass infested sage brush types, and sage brush manipulation projects that have a seeding component that improves understory conditions. The Proposed Action would add 3,695 acres of treatments. The No Action alternative would not result in an accumulation of impacts.

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**Chapter 5. Tribes, Individuals,  
Organizations, Preparers, or Agencies  
Consulted:**

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During preparation of the EA, public involvement consisted of posting the proposal on the eplanning NEPA website. Shape-files of the project were requested by and provided to one member of the public. No further comments or concerns were raised by the public. Issues or impacts identified through the interdisciplinary team analysis process are described in Appendix B.

**Table 5.1. List of Persons, Agencies and Organizations Consulted**

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
State Historic Preservation Officer (SHPO)	National Historic Preservation Act Section 106	A “no adverse effect” letter was sent to the State Historic Preservation Officer on March 17, 2014. We received their concurrence to our determination on March 28, 2014 (Home Mtn Lop & Scatter).
13 Native American Tribes	Government to Government consultation	Tribal consultation was conducted on 3/19/2014. We received one “no effect” responses from the Hopi Tribe with a request for more information. Our archaeologist called Terry Mogart. Hopi Cultural Preservation Officer, on 4/9/2014 and discussed notification in the event of any “adverse effects” that may be planned. He had no further objections or comments.
Utah Division of Wildlife Resources (UDWR)	Coordination with Brian Maxfield Sensitive Species Biologist, , Tory Mathis Habitat Biologist	Contacted by email (2014) and they support the project, and verified that they would like to treat on DNR property. .  In accordance with Utah IM-2012-043, personal communication with UDWR (Brian Maxfield, 2014) verified that the project will benefit sage-grouse in the area.
Questar/Wexpro Company	Coordination with Paul Jibson Regulatory Affairs & Administration for the Natural Gas Company	Contacted by email (2014) and they would like to be contacted when the treatments are started.
Daggett County	Coordination with Brian Raymond, Economic Development Director	Contacted by email (2104) and he supported the project.
QEP	Coordination with Debra Stanberry	Contacted by email (2014) and they would like to be contacted when the treatments are started.

For a list of preparers see Appendix A

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## **Chapter 6. References**

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# Appendix A. Interdisciplinary Team Checklist

**Project Title:** Clay Basin/Browns Park Sagebrush Treatments/Fuel Reduction Projects

**NEPA Log Number:** DOI-BLM-UT-G010-2014-0111-EA

**File/Serial Number:**

**Project Leader:** Dixie Sadlier

**DETERMINATION OF STAFF:** (Choose one of the following abbreviated options for the left column)

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

Determina-tion	Resource/Issue	Rationale for Determination	Signature	Date
<b>RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)</b>				
NI	Air Quality & Greenhouse Gas Emissions	Air quality impacts from the projected levels of emission are expected to be negligible. Minimum quantities of dust emissions are anticipated because the volume of traffic from this proposal would be less than one or two vehicles per day during the project, and the project is estimated to take 10 days to complete.	Dixie Sadlier	6/20/2014
PI	BLM Natural Areas	Portions of the project fall within the Home Mountain and Cold Springs Natural Areas	Jason West	5/5/2014

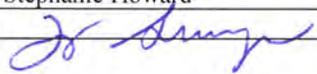
Determination	Resource/Issue	Rationale for Determination	Signature	Date
NP	Cultural: Archaeological Resources	<p>The current project was determined to be an undertaking per 36 CFR 800.16(y). The area of potential effect (APE) is considered to be the area within the polygons in attached maps. A "no adverse effect" letter was sent to the State Historic Preservation Officer on March 17, 2014. We received their concurrence to our determination on March 28, 2014 (Home Mtn, Clay Basin, Red Creek Chaining Lop &amp; Scatter).</p> <p>The current projects were determined to be an undertaking per 36 CFR 800.16(y). The area of potential effect (APE) is considered to be the area within the polygons in attached maps. This project will be sent to the State Historic Preservation Officer (SHPO) next fiscal year. It will have SHPO concurrence completed prior to treatment. (Cottonwood/Home Mountain)</p>	Kathie Davies	4/20/2014
NP	Cultural: Native American Religious Concerns	Tribal consultation was conducted on 3/19/2014. We received one "no effect" responses from the Hopi Tribe with a request for more information. Our archaeologist called Terry Mogart, Hopi Cultural Preservation Officer, on 4/9/2014 and discussed notification in the event of any "adverse effects" that may be planned. He had no further objections or comments. Also, the proposed project will not hinder access to or use of Native American religious sites.	Kathie Davies	4/20/2014
PI	Designated Areas: Areas of Critical Environmental Concern	Portions of the Project fall within the Browns Park ACEC and the Red Creek ACEC.	Jason West	5/5/2014
NP	Designated Areas: Wild and Scenic Rivers	None Present as per Vernal RMP and GIS layer review	Jason West	5/5/2014
NP	Designated Areas: Wilderness Study Areas	None Present as per Vernal RMP and GIS layer review	Jason West	5/5/2014
NI	Environmental Justice	No minority or economically disadvantaged communities or populations are present which could be affected by the proposed action or alternatives.	Dixie Sadlier	3/7/2014

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NP	Farmlands (prime/unique)	There are no Prime Farmlands located in the project area because there are no irrigated lands in the project area, which is a pre requisite for the resource designation.	Dixie Sadlier	3/7/2014
PI	Fuels/Fire Management	The proposed action will reduce fuel loadings. The project will rearrange hazardous fuels in a manner that will decrease fire behavior.	Dixie Sadlier Blaine Tarbell	3/7/2014
NI	Geology/Minerals/ Energy Production	The project area is leased for fluid minerals. However, there are no existing and or developed energy production sites located within the project area.	Betty Gamber	1/31/2014
PI	Invasive Plants/ Noxious Weeds, Soils & Vegetation	PI/NI: A review of the Field Office GIS layers shows known occurrences of the following weed species within or near proposed treatment areas: low whitetop ( <i>Cardaria draba</i> ), bull thistle( <i>Cirsium vulgare</i> ), Canada thistle ( <i>Cirsium arvense</i> ), broadleaved pepperweed ( <i>Lepidium latifolium</i> ), and common mullein ( <i>Verbascum thapsus</i> ). Halogeton ( <i>Halogeton glomeratus</i> ) and cheatgrass ( <i>Bromus tectorum</i> ) occur throughout the field office and are likely to occur within the proposed action area.	Jessie Brunson Dixie Sadlier	6/15/2014
NI	Lands/Access	A review of the MTP shows numerous ROWs within the proposed project areas (roads, pipelines (surface & buried), telephone line, & power line. You will need to coordinate with the affected ROW holders prior to initiating the proposed action. List of ROW holders will be provided to you..  Portions of the project are located within State Wildlife Reserve/Management areas (DWR) and private land (T. 3 N. R. 24 E., Sec.25 & 26) therefore, <i>coordination and approval from the DWR and Land Owner</i> would need to occur prior to initiating the proposed action.  No private lands will be treated.	Cindy Bowen	6-25-2014 4
NP	Lands with Wilderness Characteristics (LWC)	None Present as per Vernal RMP and GIS layer review. Portions of the proposed area have not been inventoried, but are lacking in size requirements for Wilderness Character Criteria	Jason West	5/5/2014

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NI	Livestock Grazing & Rangeland Health Standards	<p>The proposed project area is in the Diamond Rim, and Shiner Allotment. There will be no loss of AUM's or grazing rotation adjustment, because there will be no seed planted.</p> <p>This allotment was evaluated for Rangeland Health Standards. It was determined that this allotment is meeting the Utah Standards for Rangeland Health. The proposed action is designed to improve the vegetative condition through removing competing encroaching trees which will enhance the understory vegetation. There is expected to be a long term increase in vegetative ground cover and a reduction in soil erosion. The proposed action will likely contribute to this allotment continuing to meet Rangeland Health Standards and Guidelines.</p>	Marcus White Bull	3/7/2014
NP	Paleontology	<p>No subsurface disturbance (below topsoil) is planned to occur with the proposed action, thus there would be no impacts to Paleontology resources.</p> <p>No paleo localities are present in this area according to the GIS paleo layer.</p>	Betty Gamber	1/31/2014
NI	Plants: BLM Sensitive	A review of field office GIS layers shows no known locations for any BLM sensitive species within proximity of treatment areas. Potential habitat for <i>Penstemon acaulis</i> (Stemless penstemon) overlaps proposed slashing treatment areas, although slashing is not expected to cause ground disturbance that would be detrimental to adjacent forbs.	Jessi Brunson	6/15/2014
NI	Plants: Threatened, Endangered, Proposed, or Candidate	Although known locations of <i>Spiranthes diluvialis</i> (Ute ladies'-tresses) occur approx. 1 mile from proposed treatment areas, the treatments are focused on removal of upland pinon-juniper within sagebrush communities. No work will take place within riparian areas.	Jessi Brunson	6/15/2014
NI	Plants: Wetland/Riparian	VFO GIS layers indicate that there are no wetlands within the project area. Some riparian areas are identified, but the project will be constrained to upland areas consisting of Piñon-Juniper plant communities.	Jessi Brunson	6/15/2014

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NI	Recreation	No developed recreation sites or SRMAs exist within the project area. Some hunting occurs within the project area, however based on the scope of the project it is not anticipated that hunting will be impacted based on the number of available acres open to hunting, and no direct or indirect loss of big game can be associated with the project (see wildlife rationale).	Jason West	2/10/2014
NI	Socio-Economics	Due to the small scale project size, socioeconomics are not expected to be measurably impacted by this proposed project.	Dixie Sadlier	3/7/2014
NI	Visual Resources	VRM II, III and IV have been Identified within the Proposed Project Area. VRI included units 2, 3, 4, 5 and 6 which rated at a B, C, B and A for Scenic Quality. By proposing stump heights of less than one foot and by "bucking" trees in Lop and Scatter zones and Brush Hogging trees in mechanized use zones, VRM will not likely be noticeable to the general public based on the success from past projects within the same Zones. (see the Red Creek Slashing, and Goslin)	Jason West	5/502014
NI	Wastes (hazardous/solid)	<i>Hazardous Waste:</i> No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the project. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the project.  <i>Solid Wastes:</i> Trash would be confined in a covered container and hauled to an approved landfill. Burning of waste or oil would not be done. Human waste would be contained and be disposed of at an approved sewage treatment facility.	Dixie Sadlier	3/7/2014
NI	Water: Floodplains	A review of the Field Office GIS layer files indicates that there are no 100 year flood plains located in the project area.	Dixie Sadlier	6/20/2014
NI	Water: Groundwater Quality	Ground water is not expected to be impacted by the proposed action as there would be no sub surface disturbance associated with the proposed action.	Dixie Sadlier	6/20/2014

Determination	Resource/Issue	Rationale for Determination	Signature	Date
NI	Water: Hydrologic Conditions (stormwater)	Overall ground cover is expected to increase as a result of the proposed action, which would improve hydrologic conditions.	Dixie Sadlier	6/20/2014
NI	Water: Surface Water Quality	Surface Water Quality is not expected to be impacted by the proposed action removal of pinyon-juniper will improve overall ground cover and hydrology.	Dixie Sadlier	6/20/2014
NI	Water: Waters of the U.S.	The proposed action of removing encroaching PJs from the sagebrush is expected to improve overall ground cover and hydrology and would not degrade any ephemeral drainages in the project area.	Dixie Sadlier	6/20/2014
NP	Wild Horses	VFO GIS layers indicate that there are no Wild Horse areas present in the project area.	Dixie Sadlier	3/7/2014
PI	Wildlife: Migratory Birds (including raptors)	Potential impacts to habitat and nesting.	Dixie Sadlier	3/7/2014
PI	Wildlife: Non-USFWS Designated	BLM has designated crucial summer and winter habitat for elk and mule deer within the project area. Project should enhance habitat for both species	Dixie Sadlier	3/7/2014
PI	Wildlife: Threatened, Endangered, Proposed or Candidate	The proposed action has been designed to enhance sage-grouse habitat. The proposed action is consistent with the guidelines established in Utah IM-2012-043. Personal communication with UDWR Sensitive Species Biologist 2014. Is the proposed project in sage grouse PPH or PGH? <b>Yes</b> x No If the answer is yes, the project must conform with WO IM 2012-043.	Dixie Sadlier	3/7/2014
NI	Woodlands/Forestry	VFO GIS layers indicate that there are no commercial woodlands present within the project area	David Palmer	2/27/2014

FINAL REVIEW:			
Reviewer Title	Signature	Date	Comments
Environmental Coordinator	Stephanie Howard	7/21/2014	
Authorized Officer		7/29/14	

