

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-N05-2014-0122-EA

CASEFILE/PROJECT NUMBER:

PROJECT NAME: Oak Ridge Big Game Habitat Enhancement 2014-2015

LEGAL DESCRIPTION:

Township 1 North, Range 92 West
Section 35: SENE, NESE.

Township 1 South, Range 92 West

Section 2: SW;
Section 3: N2SE, SESE;
Section 8: S2NE, SENW, S2
Section 9: W2NW;
Section 11: NW;
Section 17: N2, N2S2;
Section 18: Lot 1-3, NE, E2NW, NESW, N2SE.

Township 1 South, Range 93 West

Section 13: S2NE.

APPLICANT: Colorado Parks and Wildlife in cooperation with BLM WRFO

PURPOSE & NEED FOR THE ACTION:

The purpose of the action is to 1) increase the availability and volume of deciduous browse as a winter forage base for big game (especially elk) in and around the Oak Ridge State Wildlife Area (SWA), 2) to stimulate sprouting and reinvigorate a decadent aspen stand, and 3) and to promote vegetation recovery on and enhance flows of an intermittent upland seep. The need for the action is that the SWA is a regionally important big game wintering area that regularly supports 2,000 to 3,000 elk. Forage demands from wintering elk impinges on agricultural interests of surrounding private landowners and has interfered with normal successional processes of oakbrush treated on the SWA in 1977. Lower elevation aspen stands on the SWA are aged and recruitment of low-density regeneration has been suppressed by drought and livestock and elk browsing. The upland seep is largely devoid of vegetation due to heavy trampling by livestock and elk and occasional vehicle traverse.

Decision to be Made: The BLM WRFO will decide whether or not to authorize implementation of the proposed big game forage, woodland, and spring site enhancement treatments.

SCOPING, PUBLIC INVOLVEMENT, AND ISSUES:

Scoping: Scoping was the primary mechanism used by the BLM to initially identify issues. Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on 9/10/2014. External scoping was conducted by posting this project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 9/15/2014.

Issues: None.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: In 2011, Colorado Parks and Wildlife (CPW), Meeker Area, received an internal multi-year grant to apply various land management treatments in and around the Oak Ridge State Wildlife Area (SWA) with the primary objective of increasing the availability and volume of deciduous browse as a winter forage base for big game, especially elk. The SWA is a regionally important winter concentration area and severe winter range that regularly supports 2,000-3,000 elk during the late winter and early spring months. An important goal of the project is to develop a forage base on public lands capable of sustaining concentrated use by wintering animals without impinging seriously on the agricultural interests of surrounding private landowners.

The Oak Ridge State Wildlife Area is located about 11 miles ESE of Meeker, Rio Blanco County and is composed of 13,535 acres of State-owned lands that encompass an additional 3,096 acres of BLM-administered lands in several parcels (Figure 1). The Oak Ridge properties are accessible to the public by foot or horseback only and are closed to general public use from December 1 to July 15 to minimize big game displacement and harassment.

Since 2009, CPW has treated 284 acres of pinyon-juniper woodland, 174 acres of aspen, 667 acres of sagebrush, and 1,294 acres of Gambel oak/mountain shrubland on State lands within the SWA. With the grant set to expire in September 2015, CPW's final plans are to treat 300 additional acres of mountain shrub and apply regenerative prescriptions on 50 acres of aspen on CPW-managed property. Relative to the extent of CPW-administered deciduous shrublands on the north slope of Oak Ridge, former and newly proposed forage enhancement treatments would comprise about 1,600 acres or about 28 percent of that available. In conjunction with these efforts, CPW approached WRFO staff in April 2014 and proposed expanding shrubland and woodland treatments on up to 400 acres of BLM-administered land in and adjacent to the SWA.

WRFO's goals and objectives for participating in this project are two-fold. Consistent with the 1997 RMP, participating in CPW's forage-enhancement efforts would satisfy three prominent management decisions pertaining to the support of big game populations in the WRFO, namely:

“Ensure that big game habitats provide components and conditions necessary to sustain big game populations at levels commensurate with multiple use objectives and state-established population objectives.”

“Maintain or enhance the productivity and quality of preferred forages on all big game ranges.”

“Provide the forms, distribution and extent of vegetative cover and forage that satisfy the physiological and behavioral requirements of big game.”

Additionally, in 1977, about 300 acres of oakbrush was anchor-chained on these BLM-administered parcels in configurations and with objectives similar to those being proposed. Although variable in response, many of the 36-year old treatment sites, subjected to decades of heavy browsing pressure by elk, are characterized by small diameter oakbrush less than 4 feet in height that is of low vigor with limited annual production.

Although the low stature and bushy conformation of regenerating oakbrush are important in making annual woody growth readily available to browsing ungulates, many wildlife values associated with Gambel oak are derived at maturity, including larger diameter boles capable of supporting cavities and spreading elevated canopies of substantial structure that offer diversified substrate for foraging (e.g., invertebrate prey) and nesting/roosting for non-game mammals and birds. Gambel oak are long-lived plants (up to 400 years old) that exhibit slow rates of growth (i.e., diameter increases of ~0.06 inch per year in sub-10" diameter classes) (Abella 2008). These oaks begin to acquire natural cavities at 4-inch diameter and are large enough for cavity excavation at diameters of 6 to 7 inches (Chambers 2002). Substantive acorn production on Gambel oak does not normally take place until the stems are greater than 5 inches in diameter at 80+ years of age (Abella 2008).

It is thought that persistent heavy browsing use of earlier BLM treatments has substantially depressed the vigor and productive capacity of oak within many of the vintage chainings. Recent increases in the availability of woody forage derived from nearly 1,300 acres of oak/serviceberry treatments conducted on CPW lands, as well as managed reduction in elk populations, have likely aided in moderating the intensity of big game browsing effects on these earlier projects. The current project proposal offers an opportunity to augment woody forage availability in areas near the original treatments to further reduce overall browsing use intensity and allow for the recovery of plant vigor and normal successional advance in treated parcels.

CPW would provide all the funding and contract administration necessary to conduct BLM-required clearances/surveys and implement project work.

Proposed Action:

Mechanical Treatment of Shrub Communities

All proposed treatments would take place on the north-face of Oak Ridge, a broad uniform slope (average 15 percent grade) whose character is dominated by Gambel oak with intermixed serviceberry, chokecherry, and aspen at elevations between 7,360 and 8,340 feet.

Considering the acreage previously treated by BLM and the objective to retain and concurrently manage for mature oak stands in configurations that meet other wildlife-related resource needs (e.g., migratory bird nesting/foraging habitat, acorn production), the WRFO has identified and delineated about 275 acres of BLM land that would be suited for big game forage enhancement work (Figure 2). This acreage includes retreatment of oak and serviceberry regeneration project sites that have developed shrub heights that are beyond ungulate reach (~45 acres). Relative to the extent of BLM-administered deciduous shrublands on the north slope of Oak Ridge, former and newly proposed forage enhancement treatments would comprise about 530 acres or about 24 percent of that available on BLM land.

Individual treatment parcels (27) total about 275 acres (range 2.4 to 26.1 acres; mean 10.2 acres). The maximum width of each parcel ranges from 200 to 550 feet (mean 330 feet) and the average width of each parcel ranges from 100 to 375 feet (mean 240 feet). Generally all oakbrush and serviceberry in the parcels would be masticated to ground level, but the operator would be instructed to avoid targeting any interior oak cluster or mott composed of stems 4-inches or greater in diameter (70+ years old), as well as individual tree-like forms of oak, dead or alive. Aspen of any size, living or standing dead, would be avoided. Subdominant shrubs (e.g., bitterbrush, big sagebrush, snowberry) and herbaceous ground cover would remain unaffected except as incidental to oakbrush/serviceberry mastication. Proposed treatment patterns were designed to provide clearings in close proximity to effective hiding cover where forage would remain readily exploited by both deer and elk (within about 200 feet of cover).

The individual treatment parcels were configured to emulate natural vegetation, successional, and terrain patterns on Oak Ridge. Resprouting of Gambel oak, serviceberry, and chokecherry has proved to be rapid, with heavy 2-3 foot high shrub cover gained within 3 years of treatment. Past treatments on BLM lands are in most cases only subtly distinguished from surrounding vegetation.

Operations would entail mechanically grinding woody growth to ground level with a rubber-tired hydro-ax with the primary intent of targeting mature serviceberry or high density/smaller diameter oak stands. Project access would be from existing roads and two-tracks; no improvements to the existing access network would be required. Machine access to individual treatment sites would originate from these roads (where treatments are bisected) or along defined cross-country traverses that would require little, if any, vegetation disturbance. Contracted equipment operators would be experienced in the use of GPS to guide delineation of parcel boundaries and access. WRFO wildlife staff would remain in regular contact with CPW staff and the equipment operator to monitor the accuracy and progress of treatments.

Targeted shrubland stands are vigorous and support well-developed herbaceous ground cover. No supplemental seeding would be required. Canopy reduction would generally prompt vigorous sprouting of new woody growth from the crown; it is unlikely that the treatments would significantly alter herbaceous forage production or composition. Current livestock and big game grazing/browsing use is considered compatible with desired development and regeneration of understory and shrub components.

Aspen Rejuvenation

Two adjunct projects are to be incorporated into the overall shrubland treatment project. Aspen woodlands are interspersed across Oak Ridge in linear configurations across the ridge's crest and as small scattered inclusions across its north face. The lower elevation stands in particular are aged and had been in decline for decades. Cattle and big game browsing were believed to have been responsible for suppressing recruitment of aspen regeneration. Presently, however, the status of aspen has apparently improved in response to current moisture regimes, improved livestock grazing practices, and reduced numbers of elk. CPW's recent efforts in hand-felling large, decadent aspen that suppress regeneration in isolated clones has been consistently successful in stimulating abundant sprouting that is relatively free of browsing-related damage. One 3.4-acre aspen stand on BLM-administered land (Figure 3) is considered candidate for this form of treatment (T1S R92W section 11 NWNW); the other aspen stands on BLM lands (about 25) appear to be regenerating and recruiting saplings at appropriate rates without further treatment or protection. Stimulating stand replacement in this case is intended to help overwhelm browsing-related damage of sporadic, low-density sprouting and avoid chronic declines in stand vigor.

Seep Protection

Up to 1,280 feet of existing 2-track are proposed to be bypassed with an alternate track to allow fencing of a heavily trampled and largely barren intermittent upland seep (Figure 4). The 0.14 acre wet meadow site (T1S R92W section 17 NWNE) would be enclosed with a wood fence (e.g., buck-and-pole, split rail, or worm design) that would eliminate vehicle crossing and reduce animal impact to allow for vegetation recovery and promote prolonged storage and flow. The track would be rerouted by hydro-axing a 10-foot wide corridor along an existing parallel track (~1,150 feet) that was not in use. Produced flow would exit the enclosure in the existing channel and remain available for livestock use.

Monitoring

CPW has implemented a long-term habitat monitoring program funded by the local White River Habitat Partnership Program committee independent of this grant. Since 2009, CPW has established twenty long-term transects to monitor vegetation response to treatments along with an additional 22 photo points, some of which are located on BLM-administered parcels. CPW began monitoring animal use data (e.g., animal distribution and response to treatments) in January 2014 utilizing Satellite GPS collars on mule deer and elk. Sample efforts will be increased through the deployment of additional collars in December of 2014. Other less intensive and indirect methods of capturing seasonal habitat use/trends by mule deer elk and cattle has been incorporated into the long-term HPP habitat monitoring program since 2009 (i.e., pellet transects, browse utilization trends and trail camera deployment at habitat monitoring sites).

Design Features:

- 1) Treatments would be conducted in the late summer through fall months (July 15 through September 30).
- 2) Machine operation and access would not be allowed under soil moisture conditions that result in rutting (3 inches or more).

- 3) Hydro-ax and transport equipment would be cleaned to remove noxious weed seed prior to entering the project area. Weed control would be evaluated and implemented, where necessary, on a case-by-case basis through BLM's standard pesticide program protocols.
- 4) CPW 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.
- 5) 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 Authorized Officer (AO). The applicant 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 applicant, under guidance of 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.
- 6) Pursuant to 43 CFR 10.4(g), the applicant 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 applicant must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.
- 7) If any paleontological resources are discovered as a result of operations under this authorization, the holder 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 operator 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.
- 8) The release of any chemical, oil, or petroleum product (regardless of quantity) must be reported by the contractor to the Bureau of Land Management – WRFO Hazardous Materials Coordinator at (970) 878-3800.

No Action Alternative: The BLM would not authorize implementation of the proposed big game forage, aspen, and seep site enhancement treatments.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM Manual 1601.08):

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: 2-26

Decision Language:

“Ensure that big game habitats provide components and conditions necessary to sustain big game populations at levels commensurate with multiple use objectives and state-established population objectives.”

“Maintain or enhance the productivity and quality of preferred forages on all big game ranges.”

“Provide the forms, distribution and extent of vegetative cover and forage that satisfy the physiological and behavioral requirements of big game.”

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) 5th 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			
Oil and Gas Development: Well Pads Access Roads Pipelines Gas Plants Facilities			
Power Lines	X	X	X
Oil Shale			
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 ¹	Resource	Rationale for Determination
Physical Resources		
PI	Air Quality	See discussion below.
NI	Geology and Minerals	The Proposed Action is not encumbered by mineral leases, mineral materials permits, or mining claims. Vegetation treatments on approximately 275 acres , consisting of 27 individual parcels, would

Determination ¹	Resource	Rationale for Determination
		have no impacts on geologic or mineral resources.
NI	Soil Resources*	The Proposed Action will result in minimal soil compaction and disturbance since rubber-tired equipment is being utilized. Existing herbaceous ground cover and sub-canopy shrubs will remain intact throughout the treatment which would minimize soil disturbance and subsequent exposure to air and water-driven erosion processes. The resultant woody litter will eventually contribute to soil productivity by increasing organic matter in the soil which in-turn improves soil structure with the benefit of improved water infiltration characteristics and reduced soil surface temperatures which improves water retention.
NI	Surface and Ground Water Quality*	The Proposed Action will result in minimal impacts on surface and ground water processes. Existing herbaceous ground cover and sub-canopy shrubs will remain intact throughout the treatment. Surface compaction will be minimized by the utilization of rubber-tired equipment and should not result in any decline in surface and/or ground water quality from water-driven non-point source pollutants created by surface erosion processes and/or herbicides since the Proposed Action does not include any chemical treatments.
Biological Resources		
NI	Wetlands and Riparian Zones*	There are a number of small seeps and springs scattered across the north face of Oak Ridge that support intermittent channel flow and wet meadows, however, during the design and layout of treatment parcels and project access these sites were strictly avoided. Because herbaceous ground cover and lower stature subcanopy shrubs would be left intact, the proposed treatments would not be expected to have any substantive influence on channel function or properties (e.g., sediment delivery, augmented flow). The proposed exclusion fence would prevent ungulate trampling and sporadic vehicle use across a small, heavily degraded wet meadow site. The fence and track reroute would ostensibly allow for full riparian expression and enable the site to function properly (i.e., subsurface storage and prolonged flow).
PI	Vegetation*	See discussion below.
PI	Invasive, Non-native Species	See discussion below.
NI	Special Status Animal Species*	Although the nearest treatment site is located about 1.5 miles from the margin of coniferous forest that receives intermittent use by reintroduced Canada lynx (federally Threatened), oakbrush-dominated habitats greater than 500 meters from higher elevation coniferous forests are not considered habitat suited for use by lynx. Current mapping of greater sage-grouse habitat (candidate for federal listing) is confined to the Little Beaver drainage north of Little Oak Ridge (no closer than 0.5 mile from the nearest treatment). Greater sage-grouse are known to have used small sagebrush inclusions along the crest of Oak Ridge (late 1970's), as well as more expansive sagebrush stands along its base (also 0.5 mile from the nearest treatment), but the proposed treatments, by design, target heavier-canopied deciduous shrubland that does not constitute suitable habitat. There are indications that Columbia sharp-tailed grouse (BLM-

Determination ¹	Resource	Rationale for Determination
		sensitive) are making increasingly frequent use of shrublands on Oak Ridge, though no leks are presently known to be located on the State Wildlife Area. Treatments, again by design, target stands of younger age-class oaks with higher stem densities that are not considered preferred sharp-tailed grouse habitat. Opening these stands via mechanical mastication would be expected to temporarily improve conditions for grouse (i.e., prior to heavy sprout development). Although encounters would be unlikely, late summer/early fall disturbance associated with equipment operation would be localized and transient and would not be expected to disrupt any important reproductive activity (e.g., lekking, nesting or brood-rearing). Brewer's sparrow (BLM-sensitive) are discussed in the Migratory Bird section.
NP	Special Status Plant Species*	There is no occupied, suitable or potential special status plant habitat within the project area or potentially influenced by the Proposed Action.
PI	Migratory Birds	See discussion below.
NP	Aquatic Wildlife*	There are no aquatic habitats potentially influenced by the Proposed Action.
PI	Terrestrial Wildlife*	See discussion below.
NP	Wild Horses	There are no wild horses or designated management areas associated with the project area.
Heritage Resources and the Human Environment		
PI	Cultural Resources	See discussion below.
NI	Paleontological Resources	No known paleontological resources are known to occur near the project area. However, the Oak Ridge SWA area is located within the PFYC 4 formation Dakota Sandstone, and the PFYC 5 formations of Chinle-State Bridge, Entrada, Frontier Sandstone, and Mowery Shale (Tweto 1979). Both of these formations have the potential to yield scientifically important invertebrate or plants fossils. Given the low density of known paleontological resources in the project area and the design features set in place, it is unlikely that this project would have a substantial impact on paleontological resources.
NP	Native American Religious Concerns	No Native American religious concerns are known in the area, and none have been noted by 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.
PI	Hazardous or Solid Wastes	See discussion below.
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 the most recent Census Bureau statistics (2010), there are no minority or low income populations within the WRFO.

Determination ¹	Resource	Rationale for Determination
NP	Lands with Wilderness Characteristics	There are no lands with wilderness characteristics identified near the Proposed Action.
Resource Uses		
NI	Forest Management	One stand of aspen (3.4 acres) has been selected for treatment. The treatment would consist of hand-felling old decadent aspens that suppress aspen sprout regeneration . This treatment will help stimulate re-sprouting and will improve the stands health by replacing old trees with new growth.
PI	Rangeland Management	See discussion below.
NI	Floodplains, Hydrology, and Water Rights	The Proposed Action is not located in a Federal Emergency Management Agency (FEMA) floodplain or encumbered by water rights. The Proposed Action will result in minimal impacts on surface hydrology processes. Existing herbaceous ground cover and sub-canopy shrubs will remain intact throughout the treatment. Surface compaction will be minimized by the utilization of rubber-tired equipment and should only result in temporary and localized reduction in surface water infiltration processes from equipment.
NP	Realty Authorizations	The Proposed Action is located in Oak Ridge State Wildlife Area. This area is classified as an avoidance area for the permitting of land use authorizations.
PI	Recreation	See discussion below.
NI	Access and Transportation	The Proposed Action will not impact the existing BLM transportation system and is located in an area that is closed to motorized vehicle use for the public according the 1997 White River RMP/ROD. The Proposed Action also does not increase or decrease existing access to public lands.
NP	Prime and Unique Farmlands	There are no Prime and Unique Farmlands within the project area.
Special Designations		
NP	Areas of Critical Environmental Concern	There are no Areas of Critical Environmental Concern associated with the project area or potentially influenced by the Proposed Action.
NP	Wilderness	There are no designated Wilderness areas or Wilderness Study Areas near the Proposed Action.
NP	Wild and Scenic Rivers	There are no Wild and Scenic Rivers in the WRFO.
NI	Scenic Byways	A few proposed treatment areas are located approximately 1 mile from the Flat Tops Scenic Byway, but from this closest and most direct distance, topography will screen these treatments from being viewed from the byway. None of the treatment areas will likely be noticeable by casual observers traveling along this byway and are likely to only be viewed from specific areas located several miles away if at all.

¹ 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 in Rio Blanco County within the Western Counties Monitoring Region of Colorado (APCD 2010). Local air quality parameters including particulates and ozone are measured at monitoring sites located at Meeker, Rangely, Dinosaur National Monument, and near the Flat Tops Wilderness Area. Ozone data have been collected at Federal reference air quality sites supported by the BLM since 2010 outside Meeker and Rangely.

The Proposed Action is located more than 10-miles from any non-attainment or special designation airshed. Non-attainment areas are designated by U.S. Environmental Protection Agency (EPA) as having air pollution levels that persistently exceed the National Ambient Air Quality Standards (NAAQS). The closest non-attainment areas are along the Front Range (ozone) corridor in Colorado. The closest special designation area is the Dinosaur National Monument located north of the project area (designated Class II airshed) with Prevention of Significant Deterioration (PSD) thresholds for sulfur oxides.

Projects that could impact special designation areas and/or non-attainment areas may require special consideration from the Colorado Department of Public Health and Environment (CDPHE) and the EPA. General conformity regulations require that federal activities do not cause or contribute to a new violation of NAAQS; that actions do not cause additional or worsen existing violations of the NAAQS; and that attainment of these standards is not delayed by federal actions in non-attainment areas.

The Clean Air Act (CAA) requires the Environmental Protection Agency (EPA) to set NAAQS (40 CFR part 50) for criteria pollutants. Criteria pollutants are air contaminants that are commonly emitted from a majority of emissions sources and include carbon monoxide (CO), lead (Pb), sulfur dioxide (SO₂), particulate matter smaller than 10 and 2.5 microns (PM₁₀ and PM_{2.5}), ozone (O₃), and nitrogen dioxide (NO₂). The EPA regularly reviews the NAAQS (every five years) to ensure that the latest science on health effects, risk assessment, and observable data such as incidence rates are evaluated. The Colorado Air Pollution Control Commission (CAPCC), by means of an approved State Implementation Plan (SIP) and/or delegation by EPA, can establish state ambient air quality standards for any criteria pollutant that are at least as stringent as, or more so, than the federal standards. Ambient air quality standards must not exceed Colorado Ambient Air Quality Standards (CAAQS) or NAAQS in areas where the general public has access.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action would result in localized short-term impacts on air quality during the treatment activities from the combustion of fossil fuels which would increase carbon monoxide, ozone (secondary pollutant formed photochemically from volatile organic compounds (VOCs) and nitrogen oxides (NO_x)), nitrogen dioxide, and sulfur dioxide. Ozone advisories and alerts were issued in the winter of 2011 and 2013 for the western portion of Rio Blanco County based on data collected from the Rangely monitoring site. Ozone can cause breathing difficulties and worsen respiratory infections especially in the elderly, the young and those with pre-existing ailments.

In summary, the Proposed Action is unlikely to result in an exceedance of NAAQ and Colorado ambient air quality (CAAQ) standards, and is likely to comply with applicable PSD increments and other significant impact thresholds.

Cumulative Effects: The cumulative impacts from the Proposed Action in Rio Blanco County include emissions from motor vehicles, oil and gas development, coal-fired power plants, coal mines, sand and gravel operations, windblown dust, and wildfires and prescribed burns (CAQCC 2011). Facility emissions in the county area are dominated by emissions related to oil and gas exploration, processing, or transportation. Due to emission sources in the White River and in the nearby Uinta and Yampa River Basins, VOCs, nitrogen oxides, and dust (particulate matter) are likely to increase into the future. With the exception of ozone, the overall air quality in Rio Blanco County is likely to continue to be in attainment of NAAQ standards due to effective atmospheric dispersion.

Since 2010, ozone data have been collected at the Meeker, CO air quality monitoring site with no occurrences of measured 8-hour values for ozone above the NAAQ ozone standard of 75 ppb. The Proposed Action is unlikely to contribute to the exceedance of NAAQ standards for ozone in the Meeker, CO area since the predominant wind patterns blow from southwest to the northeast. The Meeker air quality site to the west of the Proposed Action has not measured an exceedance of the NAAQ standard, and the average of the fourth highest value for 8-hour ozone for 2010-2012 was 64 ppb. Therefore this action is unlikely to lead to a violation of NAAQ standards for ozone or contribute to the air quality conditions leading to the exceedance of standards measured in Rangely or Meeker.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Impacts to air quality would not occur from the No Action Alternative.

Cumulative Effects: Impacts would be similar to those described for the action alternative.

Mitigation: None.

VEGETATION

Affected Environment: The proposed treatment parcels are located primarily within Brushy Loam/Loamy slopes ecological sites. Dominant woody species within these sites includes: Gambel oak, serviceberry, chokecherry, and snowberry. The understory is comprised of herbaceous species including: Idaho fescue, needlegrasses, mountain brome, bluebunch wheatgrass, and prairie junegrass. The understory community is well developed with adequate diversity and density to ensure reproductive capability and sustainability.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Primarily, the chief impacts will occur to the target species Gambel oak and serviceberry as the proposed treatment includes mastication of these species to the ground level. Direct impacts to these species will include complete removal of the above ground growth, however due to the proposed treatment method, the root structure including the crown is not anticipated to be largely impacted, it is expected successful regeneration of the target species will occur. Stands of older large oakbrush which provide important wildlife species habitat as well as a source of recruitment for new individuals within the project area will be avoided. The overall mosaic design of the treatments is expected to create a diverse age class of target woody species similar to natural succession following a wildfire event.

Herbaceous species within the treatment sites will be impacted as a result of crushing from equipment used in treatment of woody species, however, as the treatments will occur outside of the critical growing season, these species will be able to complete annual growth cycles and are expected to be only marginally impacted. A short term increase in herbaceous species is expected as this component of the vegetation community is released from competition from woody species. As regeneration of treated species occurs, the vegetation community within the treated parcels will transition to a shrub-dominated site with healthy diverse herbaceous understory typical of natural succession within these ecological sites. Rerouting the two track access road and fencing of the spring source identified in the Proposed Action is expected to improve the vigor and density of riparian vegetation species within that area.

Indirect impacts to both treated and non-target vegetation includes heightened grazing pressure from livestock and big game wildlife. Due to the size and scope of the proposed treatment parcels in concert with the existing treatments on within the SWA, the expected increase in grazing pressure is anticipated to be sufficiently dispersed to avoid concentrated overutilization within individual treatment areas.

Cumulative Effects: The proposed treatments coupled with other disturbances influencing vegetation communities within the Oak Ridge geographic area, including grazing, natural wildfire, past and future vegetation treatments, disease, and drought, are not expected to reduce the capability of vegetation communities within the analysis area to meet land health standards or reduce the sustainability of these communities. The proposed treatments on BLM lands as well as existing treatments are expected to improve the overall health of vegetation communities through increased diversity of varying species as well as age classes of individual species across the landscape.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Under this alternative, vegetation of BLM-administered lands within the Oak Ridge SWA would not be impacted due to mechanical vegetation treatment.

Cumulative Effects: Anticipated impacts to vegetation communities within historic treatments on BLM lands as well as recent treatments on CPW lands within the analysis area include increased grazing pressure since there would be fewer acres of younger and more accessible forage available for browsing and grazing. With fewer overall acres of younger generation browse species and reduced accessibility of herbaceous growth, use by grazing

ungulates may be more concentrated within the existing treatment areas, potentially reducing the probability of successful regeneration of target species as well as increased utilization of herbaceous understories.

Mitigation: None.

Finding on the Public Land Health Standard #3 for Plant and Animal Communities: Vegetation communities within the proposed treatment areas as well as the surrounding landscape are generally meeting standards for rangeland health. The proposed vegetation treatments are expected to improve the overall health and vigor of vegetation within the Oak Ridge area and facilitate continued meeting of vegetation-related rangeland health standards.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The primary noxious weed species of concern identified within the project area is yellow toadflax, a creeping perennial species. Yellow toadflax is a Colorado list B noxious weed; list B species are identified as species that will be managed to control continued spread rather than complete eradication.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Removal of overstory woody vegetation may allow noxious weeds within the project area to increase in density. Due to the aggressive nature of invasive and non-native species currently found in the area, the proposed treatments are not anticipated to increase the capability of these species to establish or spread throughout the vegetation community. Equipment used to complete the proposed treatments will be cleaned prior to use, to reduce to potential to spread new invasive species into the project area. The removal of dense woody overstories would likely provide greater accessibility for personnel locating and treating infestations of invasive species within the treatment areas. As identified in the Proposed Action, weed control will be evaluated and implemented where necessary.

Cumulative Effects: The proposed vegetation treatments are not expected to collectively increase the potential for the establishment or spread of invasive species within the Oak Ridge area.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Under this alternative, the potential for spread of establishment of invasive species would not be influenced as a result of mechanical vegetation treatment on BLM lands. Invasive species would continue to occur within the project area

Cumulative Effects: The No Action Alternative would not influence change in the establishment, spread, or management of invasive species from the current situation within the project area. The increased accessibility for detection and treatment of invasive species would not be realized under this alternative.

Mitigation: None.

MIGRATORY BIRDS

Affected Environment: Gambel oak-dominated slopes with interspersed stands of serviceberry, chokecherry, and aspen on the north face of Oak Ridge support high densities of migratory birds during the core nesting season (mid-May through mid-July) and fall migration. Though no birds are strictly relegated to the oak type, many mountain shrub associates are strongly represented, particularly in mature stands (e.g., 5 inches diameter and greater). Although small and scattered, aspen inclusions (at least 100 acres in 26 or more parcels on BLM lands) on Oak Ridge support a reasonably complete assemblage of representative birds (indicated with an asterisk). More common birds associated with these habitat types are listed below:

BLM sensitive: Columbia sharp-tailed grouse (discussed in Table 2);

FWS Birds of Conservation Concern: Lewis's woodpecker;

BLM Priority: yellow warbler*, Virginia's warbler, green-tailed towhee, vesper sparrow

Typical, but noteworthy: band-tailed pigeon, gray catbird, dusky grouse, black-capped chickadee, yellow-rumped warbler*, warbling vireo*, red-naped sapsucker*, MacGillivray's warbler*, Lincoln's sparrow (wet meadow), black-headed grosbeak, white-breasted nuthatch.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Proposed mechanical treatment of deciduous shrubs would reduce the availability of nesting and foraging substrate associated with more mature canopies for most of the migratory birds inhabiting Oak Ridge during all seasons. However, the scale of treatment on BLM-administered lands (275 acres proposed) comprise about 12 percent of like shrubland on the north face of Oak Ridge and would, on average, approximate a disturbance return interval of about 220 years (considering past chainings and assuming no additional treatments for next 20 years). While leaving nearly 90 percent of BLM-administered shrubland in its current state, this rate of disturbance remains consistent with long-term management that favors an increasing complement of mature stands of oak. Considered collectively, it is likely that the relative extent of former and currently proposed treatments remain within the range of natural variability for the type. The size-class of more mature Gambel oak on Oak Ridge appears dominated by stands of 4-5 inch diameters, indicating an age class of 70 to 85 years. Large diameter oaks of 8+ inch diameter (150+ years) are widely distributed but relatively uncommon, whereas stands of oaks exceeding 12 inch diameter (200+ years) are infrequent and generally less than 1 acre. It is unlikely that shrubland habitats modified by proposed treatments would have any discernible influence on the overall abundance or distribution of breeding migratory birds on BLM-administered Oak Ridge tracts.

Behavioral disturbance capable of disrupting nest-site selection, incubation, brooding, or rearing of young would be largely avoided by relegating operations outside the core nesting season (after July 15). Small numbers of late nest or re-nest attempts may be subject to failure, but such incidents are expected to be a small percentage of overall reproductive effort.

Aspen rejuvenation aspects of the project are intended to stimulate strong regenerative response in a stand that does not appear to have gained appropriate stimulus. Although a number of larger diameter aspen (available for cavity excavation and cavity-nester occupation) would be felled on up to 3.4 acres, this represents a small percentage of BLM-administered aspen habitat available on Oak Ridge (up to 3.5 percent). This action is intended to initiate a process of stand

rejuvenation under favorable circumstances (i.e., moisture, browsing pressure) and thereby reduce the risk of the stand reaching a point where the opportunity or potential for recovery is lost (i.e., ensuring stand perpetuation).

Cumulative Effects: The Proposed Action would contribute to habitat modification attributable to shrubland treatments on adjacent CPW-administered lands. Treatments on CPW lands are being implemented at levels comparable to those on BLM (about 15 percent greater) and the overall effect would be similar to that calculated above.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no change in shrubland habitat conditions on BLM-administered parcels on Oak Ridge.

Cumulative Effects: Shrubland treatments would continue to be applied on surrounding CPW lands, such that failure to treat 275 acres on BLM lands would reduce overall shrubland modification on the Oak Ridge State Wildlife Area by about 11 percent or about 3 percent of its north face shrubland base. Omitting the proposed treatments on BLM-administered parcels would have little effective influence on the overall abundance or distribution of breeding migratory birds on the Oak Ridge State Wildlife Area.

Mitigation: None.

TERRESTRIAL WILDLIFE

Affected Environment: Oak Ridge is used throughout the year by both deer and elk. Big game density during the summer months is relatively light, although aspen along the crest of the ridge are central to elk production (i.e., calving, calf-rearing) functions. Although big game distribution and use during the fall is influenced by hunting pressure, winter use is consistently pronounced. Concentrated elk use occurs across the entire ridge with winter concentrations of deer more confined to the lower elevation west end and the main ridge's south-facing slopes (higher sagebrush component where no treatments are planned). Late winter and early spring use (severe winter range) for elk is closely associated with south-facing slopes on Oak Ridge proper and Little Oak Ridge at the foot of its north face.

Raptor nesting substrate on Oak Ridge is generally relegated to aspen and large mature oaks. Species using these sites are typically red-tailed hawk, Cooper's hawk, great horned owl, and long-eared owl. With the exception of the aspen rejuvenation site, where no trees capable of supporting a nest structure exist, aspen and sizable oaks were avoided by design.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Treatment operations are scheduled to be conducted in the late summer and fall months, which would avoid timeframes when more sensitive big game functions are being fulfilled (i.e., reproductive and late winter/early spring).

The treatments themselves are intended to contribute to forage enhancement efforts of CPW across the bulk of Oak Ridge and would not only increase the availability of woody forage for

both elk and deer for 10 or more years, but would likely temporarily increase the production of herbaceous forage. As proposed, the 275 acres of treatments would comprise about 12 percent of like BLM-administered shrubland on the north face of Oak Ridge and represent about 3 percent of like shrubland within the State Wildlife Area.

Heavy and persistent big game browsing use on many of the shrubland tracts treated by BLM in 1977 is thought to have suppressed normal successional development, particularly in slowly-developing Gambel oak. Increasing the volume and availability of young woody forage production under current big game population regimes on both State and federal lands within the State Wildlife Area is expected to moderate overall browsing intensity and allow for normal successional advance in vintage and newly treated parcels. As discussed in the Migratory Bird section, changes in successional patterns attributable to these treatments are considered consistent with the natural range of variability in these shrublands and would not alter the overall function or condition of these montane shrublands.

Treatment operations are not expected to involve any raptor nest activity. As scheduled, operations would generally take place outside the normal range of raptor nest activity.

Cumulative Effects: The Proposed Action would contribute to habitat modification attributable to shrubland treatments on adjacent CPW and private lands. Treatments on CPW lands are being implemented at levels comparable to those on BLM (about 15 percent greater) such that the overall rate and distribution of treatments on the Oak Ridge State Wildlife Area would be equitable among the two land bases. Collectively, treatments across Oak Ridge are expected to help reestablish normal successional patterns of oakbrush development on BLM parcels that were treated nearly 40 years prior and help alleviate the effects of concentrated elk use on adjacent privately-owned agricultural lands.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Failure to implement shrubland treatments on BLM-administered lands would represent an 11 percent reduction in the forage base being developed to help sustain concentrated winter use by elk within the State Wildlife Area. Shrubbyland treatments would continue to be applied on surrounding CPW lands; omitting treatments on BLM lands would modify the distribution of lands with enhanced forage properties and tend to incrementally elevate the intensity of use on treated shrublands on State lands and increase forage use by elk on surrounding private lands.

Cumulative Effects: The Proposed Action represents about 3 percent of the shrubland base on the north face of Oak Ridge within the State Wildlife Area, and contributes collectively to overall treatment rates of about 27 percent of the shrubland base on Oak Ridge over the past 40 years.

Mitigation: None.

Finding on the Public Land Health Standard #3 for Plant and Animal Communities: BLM inholdings within the Oak Ridge State Wildlife Area fully meet the land health standards for animal communities. Emphasizing forage production in support of concentrated elk use is

consistent with the State management objectives and, at the rates and patterns proposed, is considered consistent with BLM land health management philosophies.

CULTURAL RESOURCES

Affected Environment: In general, the archaeological site density in the proposed project area is low. The area was used in prehistoric times mostly for hunting and gathering activities. Within the proposed treatment areas, prehistoric sites are generally found at lower elevations in the pinyon-juniper woodlands located in the northwest part of the SWA near the White River. Historic uses of the area are predominantly concerned with ranching and hunting activities.

Because the undertaking involves federal funds and is partly on federally administered land, CPW and the BLM requested a cultural resource investigation of the area of potential effects (APE) to identify any historic properties that may be affected by the undertaking to ensure compliance with Section 106 of the National Historic Preservation Act. To identify unknown cultural resources that could potentially be impacted by the proposed undertaking, Metcalf Archaeological Consultants, Inc. (MAC) was contracted to conduct a Class III cultural resources inventory for proposed habitat treatment areas within and adjacent to the Oak Ridge State Wildlife Area (SWA) in Rio Blanco County, Colorado. Within the SWA proper, there are three proposed treatment parcels. On BLM administered land surrounded by or adjacent to the SWA, there are 32 parcels. A 50-foot buffer was added to the proposed BLM treatment parcels to define the APE for the project and some of the buffers overlap. As a result, inventory included only 29 discrete parcels on BLM administered land. A number of the BLM parcels extend across property lines into the SWA.

In addition to proposed treatment areas, the project required cultural resource survey of 15 new, off-track access routes between existing access roads and treatment parcels or between the parcels themselves. These proposed off-track routes total approximately 6,217 feet. They were buffered 50 feet, resulting in 100 foot-wide inventory corridors along them. The proposed CPW parcels, buffered BLM parcels, and buffered off-track access routes constitute the APE for this project and total approximately 681 acres. Of this total, 259.4 acres are owned by the State of Colorado and 421.6 acres are federal land administered by the BLM. Of the 681 acres in the APE, MAC conducted intensive cultural resource inventory of 476.8 acres (229.3 acres State of Colorado; 247.5 BLM). The remaining 204.2 acres (30.1 acres State of Colorado; 174.1 acres BLM) were not systematically inventoried due to dense vegetation cover.

Inventory resulted in discovery of two new sites and three isolated finds, and relocation and update of one previously recorded site.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Mechanical and manual methods of habitat treatment have the potential to negatively affect cultural resources through the introduction of wheeled or tracked vehicles onto sites or culturally sensitive areas. In addition, mowing or chopping operations have the potential to damage ephemeral cultural structures. For archaeological sites, direct impacts could result primarily from disturbance of surface and subsurface sediments. For

historic properties with protohistoric or historic structural remains, direct impacts may result from damage to or destruction of these structures. Direct impacts to cultural resources can occur whenever the ground surface is disturbed. Based on the inventory results, the Proposed Actions will have no impact on historic properties for the proposed habitat treatment project.

Cumulative Effects: The removal of vegetation could temporarily exacerbate erosional factors that are already impacting known archaeological sites. Furthermore, habitat improvements might lead to greater use of the project area by livestock and wildlife, which could potentially contribute to further degradation of cultural resources within the project area.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: All recorded and unrecorded resources would continue to remain in the same state as currently exists and be subject to current natural forces.

Cumulative Effects: There would be no cumulative effect because no projects would be implemented.

Mitigation: None.

VISUAL RESOURCES

Affected Environment: Visual resources are the visible physical features of a landscape that convey scenic value. The BLM developed the Visual Resource Management system to identify and evaluate an area's scenic value. The visual resource inventory (VRI) process described in BLM Manual H-8410-1 establishes VRI classes, which are used to assess visual values for areas of the landscape. VRI classes II, III, and IV are determined by using a combination of three components: scenic quality, sensitivity level, and distance zones, with Class II having a higher level of value and Class IV having the least visual value. VRI Class I areas are assigned to special management areas, such as Wilderness Study Areas, which are the most valued landscapes. The VRI classes are the baseline from which environmental effects are measured. The majority of the Proposed Action is located in Visual Resource Inventory Class II area with a few of the most northern treatment areas located in VRI Class III area, which means this area is valued scenic landscape with very few visible management activities in the area. The area of the landscape where the Proposed Action is located was placed into VRI Class II as a result of a composite of the three above mentioned components. The area received a moderate Scenic Quality scoring of B (A, B, and C type rating). The Sensitivity Level rating as moderate value to the public (high, moderate, and low type rating), and the project is proposed to be located in a Distance Zone of Foreground-Midground (Foreground-Midground, Background, and Seldom Seen type rating).

The BLM also maintains four Visual Resource Management (VRM) classes used to describe the level of acceptable change allowable at a given location. Scenic values in the BLM White River Resource Area have been classified according to the Visual Resource Management (VRM) system into four Visual Resource Management Classes (I-IV), and corresponding VRM objectives were established in the 1997 White River ROD/RMP. VRM Class I are the most

restrictive with VRM Class IV being the least restrictive for the amount of allowable change to occur on the landscape. The Proposed Action is located within a VRM Class II area. The objective of the VRM II classification is to retain the existing character of the landscape. The level of change to the characteristic landscape in VRM II areas should be low. Management activities may be seen but should not attract attention of the casual observer. Changes must repeat the basic elements found in the predominant natural features of the characteristic landscape. The character of the landscape is the overall impression created by its unique combination of visual features (such as land, vegetation, water, and structures) as seen in terms of form, line, color, and texture.

The Proposed Action is located approximately 11 miles east of Meeker, CO and just north of Rio Blanco County (RBC) Road 8 on the north facing gentle slope of Oak Ridge. The Proposed Action is most likely to be viewed by those traveling RBC Road 8 from certain areas at a distance of approximately 3-5 miles. The Proposed Action is also likely to be viewed by some big game hunters that are traveling on foot in this area during the fall season. Texture is the most dominant visual element and consists of coarse dense mountain shrubs and oak mixed with some stands of aspen and small vegetation openings of grasses, sage brush, and smaller shrubs. The form is made up of the gentle slope of Oak Ridge with the line element consisting of the top of the ridgeline. The color element varies from dark greens to light and dark browns throughout the seasons. Management activities in this area consist of other former vegetation treatments, fences, and stock ponds.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action includes vegetation treatments in 27 uniquely shaped parcels ranging from 2.4 to 26.1 acres in size. These parcels are proposed to be scattered in a somewhat random arrangement resulting in the creation of what should appear to the casual observer as natural vegetation openings. These vegetation treatments will create contrast to the texture of the landscape, but by repeating the natural forms of existing vegetation openings found on the landscape should not attract the attention of the casual observer traveling along RBC Road 8. These treatments will be seen by big game hunters in the fall months as they travel on foot through treatment areas. Over the course of the two to three growing seasons, these vegetation treatments will likely blend with the surrounding landscape and not be noticeable at all by those traveling on foot through treatment areas. Any color contrasts created by the treatment of vegetation will likely blend with the landscape when viewed from RBC Road 8 and will likely not be noticeable by those traveling on foot through treatment areas. Overall, the implementation of the Proposed Action will not change the Visual Resource Inventory Class II rating and will meet the Visual Resource Management class II objective of retaining the existing character of the landscape in this area.

Cumulative Effects: Combined with other foreseeable vegetation treatment and rangeland improvement activities in the area, this Proposed Action will likely not contribute to impacting casual observers or change the visual characteristics of the landscape in this area.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: By not implementing the Proposed Action there would be no new impacts to visual resources or casual observers in this area and there would be no changes to visual resource inventory class ratings.

Cumulative Effects: None have been identified as a result of this alternative.

Mitigation: None.

HAZARDOUS OR SOLID WASTES

Affected Environment: Fuels, oils, and lubricants would be used during the project. There are no known hazardous or other solid wastes on the subject lands. No hazardous materials have been identified that would be used, stored or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Accidental spills or leaks associated with equipment failures, refueling or maintenance of equipment, and storage of fuel, oil, or other fluids could cause localized soil, surface water and/or groundwater contamination.

Cumulative Effects: Effects to soil, water, air, and biological resources as a result of cumulative release of hazardous materials into the environment are unknown. Because some hazardous substances persist in the environment, it is reasonable to assume that inadvertent release of hydrocarbons or chemicals associated with equipment operation may contribute to cumulative impacts to soil, water, air, and biological resources. However, any accidental release of chemicals (e.g., antifreeze) or hydrocarbons (e.g., fuel) during the conduct of these treatments would be expected to remain small and discrete and would contribute only peripherally to other local (i.e., attributable to past or ongoing equipment use on CPW lands) or region-wide vehicle-related hazardous material releases and effects.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: No hazardous or other solid wastes would be generated under the No Action Alternative.

Cumulative Effects: There would be no potential to contribute to cumulative hazardous material effects with no authorized equipment operations on BLM lands.

Mitigation: None.

FIRE MANAGEMENT

Affected Environment: The Proposed Action is within the B9 Meeker East fire management polygon. Fire management objectives for this polygon include protecting private land and structures when threatened by public land fires. The primary strategy on all fires is direct control with 90 percent of all fires suppressed at less than 10 acres. The target area consists of oakbrush with scattered stands of aspen trees which is classified as a fire regime condition class (FRCC)

III, vegetation strata that experiences infrequent (>35 year fire return intervals) fire return intervals that remove >75 percent of the vegetation.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: In the event of a wildfire, the Proposed Action will result in less intense fires, post treatment, due to the removal of oakbrush and a healthier understory of shrubs and forbs. 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 target area would move from a FRCC of III to a FRCC of 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 objects of the Northwest Colorado Program Area Fire Management Plan.

Cumulative Effects: This treatment combined with other fuels related projects in the immediate area will aid in reducing the FRCC and increases the ability of firefighters to perform suppression activities.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There will be no change from the current condition. The Oak Ridge area would likely progress to an FRCC IV. Oakbrush would continue to reduce other vegetation communities. A wildfire impacting the area would likely be more difficult to control and thus more expensive.

Cumulative Effects: Vegetation treatments, both mechanically 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.

RANGELAND MANAGEMENT

Affected Environment: The proposed vegetation treatments are located within the Oak Ridge SWA (#06822) and Wilber G (#06821) grazing allotments. These allotments are included in a Coordinated Resource Management Plan with Colorado Parks and Wildlife and the U.S. Forest Service. Livestock grazing within these allotments occurs 5/10-7/10 annually, rotating between various pastures during the grazing period.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Livestock may be disturbed/displaced during the treatment phase of this project if treatments occur while livestock are within the area. Displacement would likely be temporary and livestock would return to the treated areas soon after completion of mechanical treatment.

Removal of woody overstory would likely increase the amount of forage available to livestock through increased density as herbaceous vegetation is released from competition as well as increase accessibility to forage species. The proposed spring enclosure is not expected to reduce or exclude water availability to livestock and will likely increase the quantity of available water flowing out of the enclosure as the spring improves.

Cumulative Effects: The proposed treatments will likely increase success and efficiency of livestock management by increasing foraging areas available to livestock, allowing for wider distribution of livestock throughout the pastures within the allotments.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Livestock management would not be impacted by the no action alternative.

Cumulative Effects: Management and distribution of livestock would not be changed from the current situation. The anticipated increase in forage availability would not be realized under the No Action Alternative.

Mitigation: None.

RECREATION

Affected Environment: The Proposed Action occurs within the White River Extensive Recreation Management Area (ERMA). The BLM custodially 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 Recreation Opportunity Spectrum (ROS) classification for the area where the Proposed Action is located has not been defined in the 1997 White River RMP/ROD. However, this area most closely resembles the ROS classification of Semi-Primitive Non-Motorized. Areas within this classification are characterized by a largely natural appearance and are accessible by foot, horseback, or bike. Interaction with other visitors is low. There are minimum on-site controls and restrictions, and the area provides for a moderate probability of experiencing isolation, remoteness, and closeness to nature. The primary recreation activity in this area is a moderate to high amount of upland big game hunting from late August through December of each year with peak use from mid-October through late-November. The Proposed Action is located within the Colorado Parks and Wildlife (CPW) Game Management Unit (GMU) 23 and overall is a somewhat popular big game hunting area where hunters have good opportunities to pursue both mule deer and elk.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Because the project's goals and objectives relate to big game habitat improvement, this project is likely to provide long term indirect benefits for the primary recreation activity in this area which is big game hunting. Although the project is not designed to directly increase the number of elk in this area during hunting seasons resulting in a direct increase in hunting success rates, it is designed to assist in sustaining big game populations at levels commensurate with multiple use objectives and state-established population objectives.

This is likely to contribute to some long term indirect improved hunting experiences for those pursuing big game in the WRFO. A more detailed analysis of the impact of the Proposed Action can be found in the Terrestrial Wildlife Section. These vegetation openings will provide hunters with greater viewing distances around the treatment parcels for locating big game in this fairly dense, brushy area.

Cumulative Effects: Combined with other foreseeable vegetation treatment and rangeland improvement activities in the area, the Proposed Action may begin to contribute to a somewhat improved landscape with slightly more recreational opportunities and slightly better recreational experiences.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: By not implementing the Proposed Action there would be no new impacts or benefits to recreationalists in this area and there would be no changes to recreational experiences and settings.

Cumulative Effects: None identified as a result of this alternative.

Mitigation: None.

REFERENCES CITED:

Abella, Scott R. 2008. Managing Gambel oak in southwestern ponderosa pine forests: the status of our knowledge. Gen. Tech. Rep. RMRS-GTR-218. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 27 p.

Chambers, C.L. 2002. Status and habitat use of oaks. Final Report. Arizona Game and Fish Heritage Fund. Heritage Grant I98012. 52pp.

TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED:

This project was developed in cooperation with the Area 6 Meeker CPW staff.

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility	Date Signed
Keith Sauter	Hydrologist	Air Quality; Surface and Ground Water Quality; Floodplains, Hydrology, and Water Rights; Soils	10/18/2014
Heather Woodruff	Ecologist	Areas of Critical Environmental Concern; Special Status Plant Species, Forest Management	10/8/2014
Brian Yaquinto	Archaeologist	Cultural Resources; Native American Religious Concerns; Paleontological Resources	11/24/2014
Tyrell Turner	Rangeland Management Specialist	Invasive, Non-Native Species; Vegetation; Rangeland Management	10/18/2014
Ed Hollowed	Wildlife Biologist	Migratory Birds; Special Status Animal Species; Terrestrial and Aquatic Wildlife; Wetlands and Riparian Zones	10/2/2014
Ed Hollowed	Natural Resource Specialist	Hazardous or Solid Wastes	10/2/2014
Aaron Grimes	Outdoor Recreation Planner	Wilderness; Visual Resources; Access and Transportation; Recreation,	9/30/2014
Kyle Frary	Fire Management Specialist	Fire Management	9/23/2014
Paul Daggett	Mining Engineer	Geology and Minerals	9/19/2014
Janet Doll	Realty Specialist	Realty	9/16/2014
Melissa Kindall	Range Technician	Wild Horse Management	10/18/2014
Ed Hollowed/Lisa Belmonte	Wildlife Biologists	Project Lead – Document Preparer	10/2/2014
Heather Sauls	Planning & Environmental Coordinator	NEPA Compliance	12/11/2014

ATTACHMENTS:

Figure 1: Oak Ridge Project Overview

Figure 2: Shrub Treatment Parcels

Figure 3: Aspen Rejuvenation Site

Figure 4: Seep Protection Site

Figure 1: Oak Ridge Project Overview

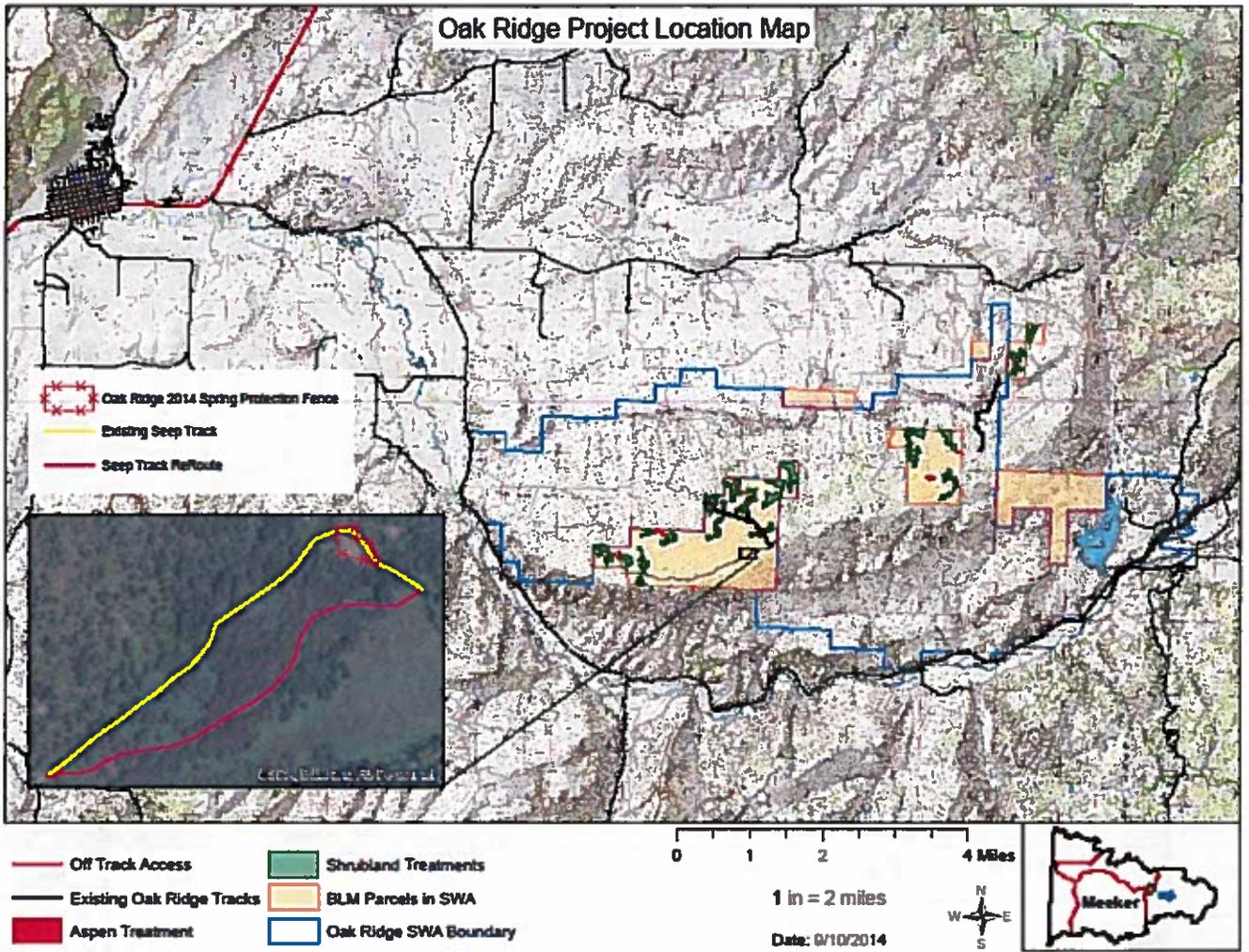


Figure 2: Oak Ridge Shrub Treatment Parcels

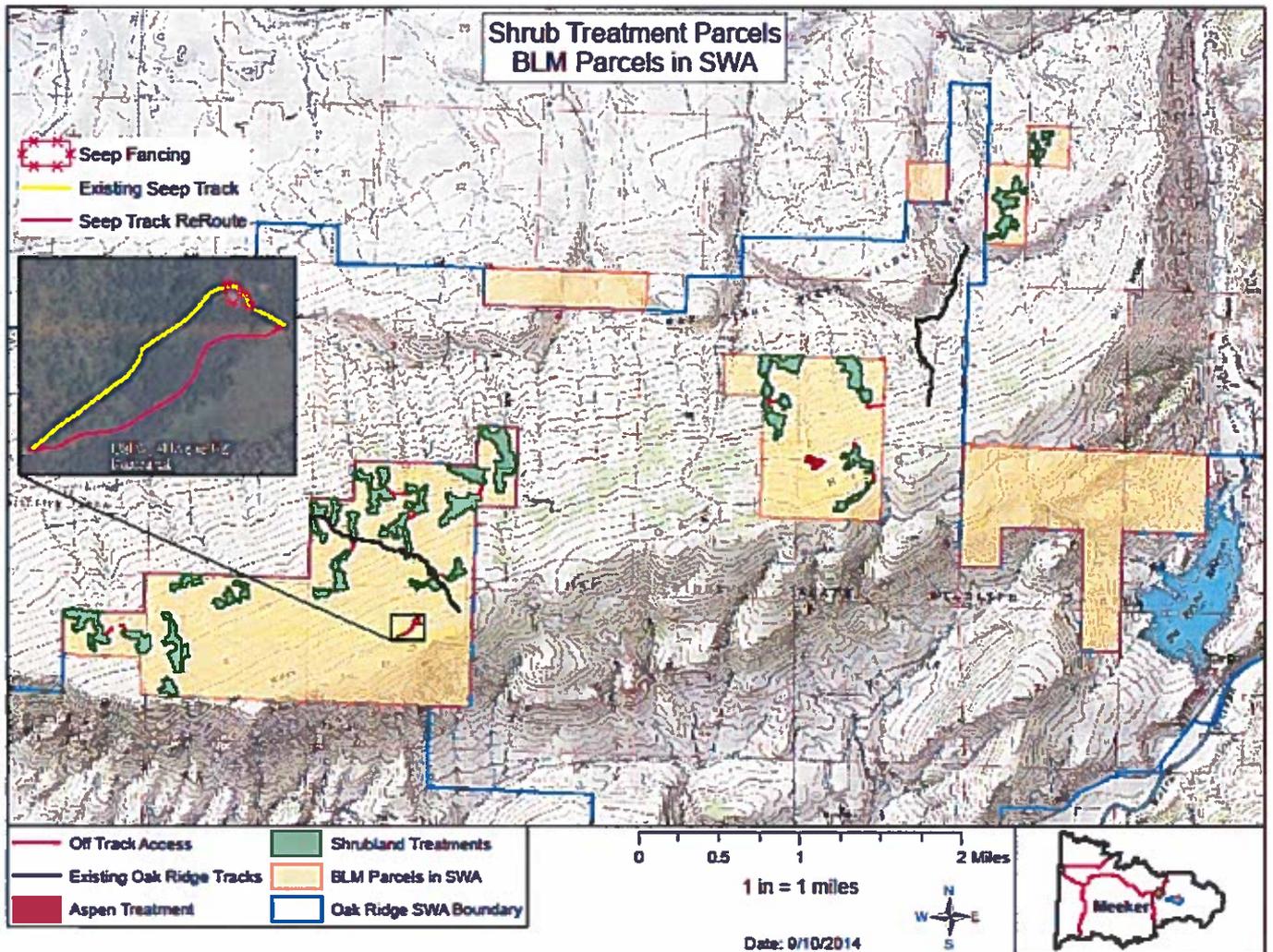


Figure 3: Oak Ridge Aspen Rejuvenation Parcel

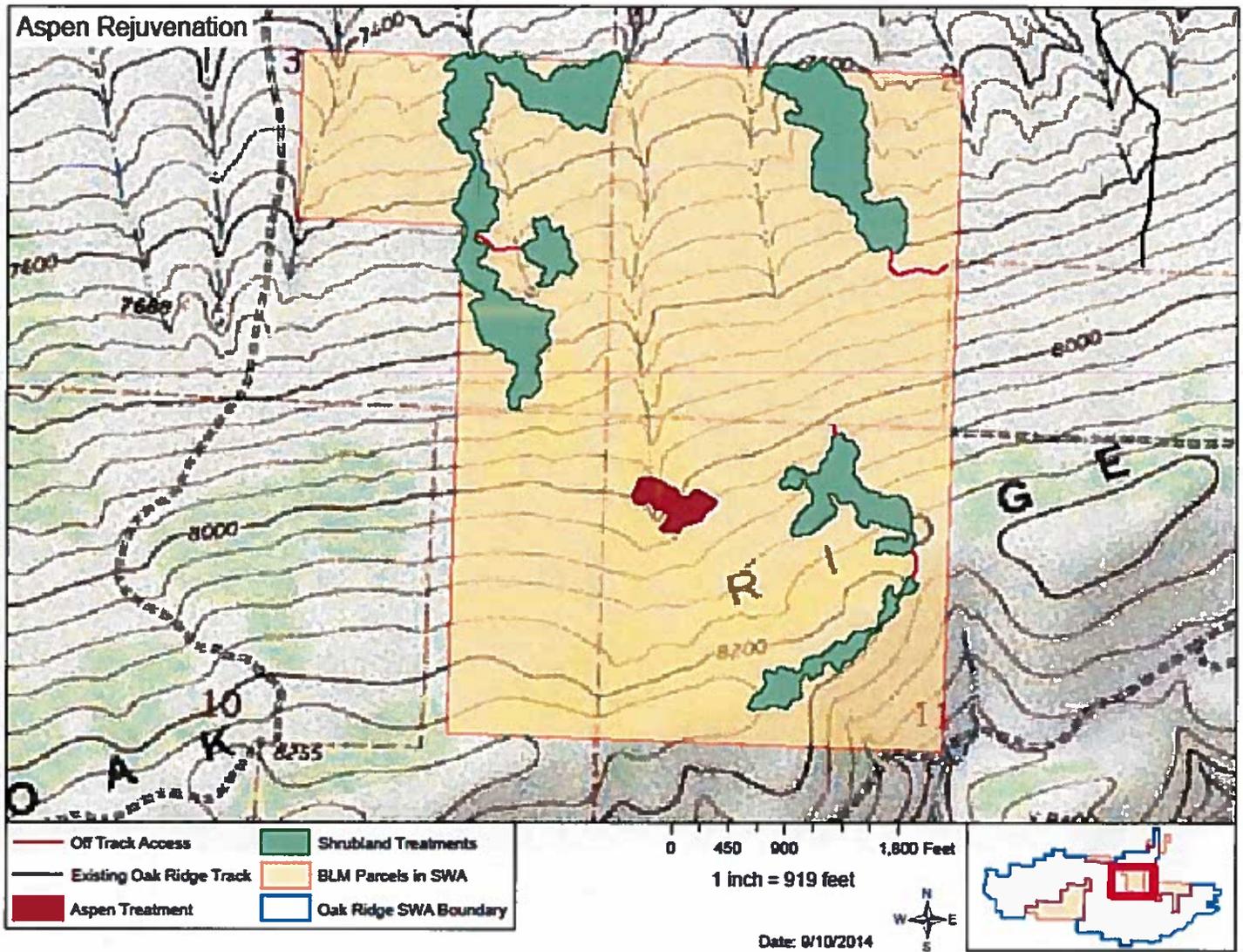
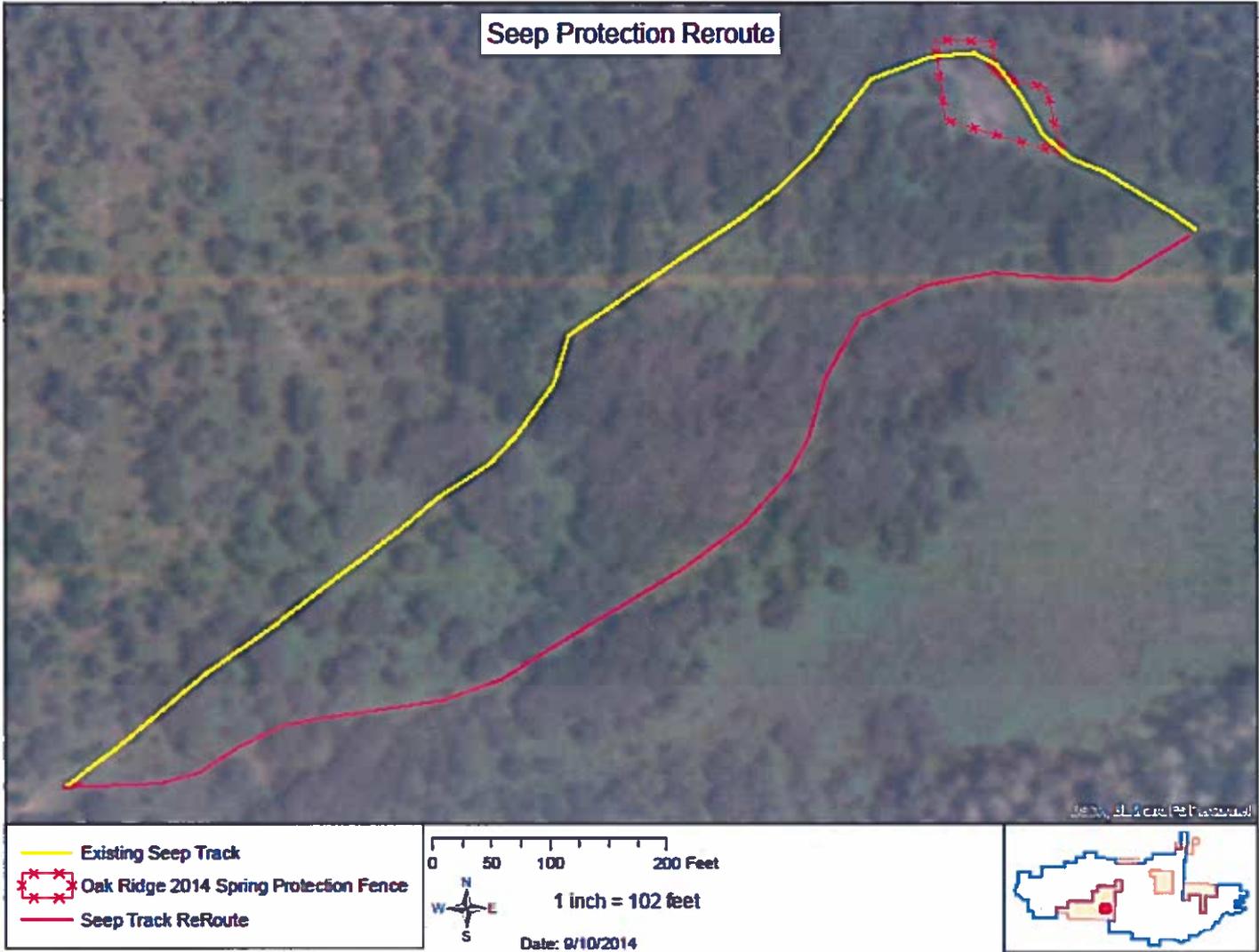


Figure 4: Oak Ridge Seep Protection (exclosure and 2-track reroute)



**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-N05-2014-0122-EA**

BACKGROUND

The Proposed Action involves mechanical mastication of 275 acres of Gambel oak-dominated shrublands on BLM lands within the Oak Ridge State Wildlife Area (i.e., elk forage enhancement), hand-felling decadent aspen trees on up to 3.4 acres (i.e., stand rejuvenation), and erecting a fence and rerouting a primitive 2-track around a 0.14 acre seep/wetland site (i.e., wetland enhancement).

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 themselves have international, national, regional, or state-wide importance. The project proposal involves vegetation manipulation methods and wetland protection devices that are widely implemented and are consistently effective in producing desired results.

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.

The Proposed Action represents cooperative partnership with Colorado Parks and Wildlife in managing the availability and quantity of seasonal big game forage within a State Wildlife Area in support of State-established big game population objectives. Other facets of the project are designed to rejuvenate and promote vigorous reproduction in aged aspen stands that are at risk of continued decline and loss, and to protect a small isolated wetland from the effects of ungulate trampling and vehicle use. The scale, conduct, and timing of this project are explicitly intended to avoid negative consequences to other environmental resources and conditions.

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 park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas in the Oak Ridge State Wildlife Area.

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

CPW has been implementing similar shrubland treatments since 2009; these actions have not generated any adverse public reaction. Management of public lands to benefit big game is regarded with favor in the local community, which derives considerable economic benefit from recreational big game hunting.

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. Forage enhancement efforts of this nature were specifically addressed and endorsed in the current Land Use Plan.

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

No individually or cumulatively significant impacts were identified for any resource.

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.

Design features have been provided to protect cultural resources. Any potential adverse effects have been mitigated.

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.

There are no federally threatened or endangered species which inhabit or make substantive use of habitats within the project area or in areas potentially influenced by the project.

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:

Kent T. Walter

Field Manager

DATE SIGNED:

12/16/2014

**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: Oak Ridge Big Game Habitat Enhancement 2014-2015

ENVIRONMENTAL ASSESSMENT NUMBER: DOI-BLM-CO-N05-2014-0122-EA

DECISION

It is my decision to implement the Proposed Action, as conditioned and mitigated in DOI-BLM-CO-N05-2014-0122-EA, authorizing CPW to contract, as presented in this document, the mechanical mastication of 275 acres of shrubland, hand felling of up to 3.4 acres of decadent aspen, and erecting a wood fence and rerouting a primitive 2-track around a small seep site.

Mitigation Measures:

- 1) Treatments would be conducted in the late summer through fall months (July 15 through September 30).
- 2) Machine operation and access would not be allowed under soil moisture conditions that result in rutting (3 inches or more).
- 3) Hydro-ax and transport equipment would be cleaned to remove noxious weed seed prior to entering the project area. Weed control would be evaluated and implemented, where necessary, on a case-by-case basis through BLM's standard pesticide program protocols.
- 4) CPW 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.
- 5) 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 Authorized Officer (AO). The applicant 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 applicant, under guidance of 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.

- 6) Pursuant to 43 CFR 10.4(g), the applicant 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 applicant must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.
- 7) If any paleontological resources are discovered as a result of operations under this authorization, the holder 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 operator 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.
- 8) The release of any chemical, oil, or petroleum product (regardless of quantity) must be reported by the contractor to the Bureau of Land Management – WRFO Hazardous Materials Coordinator at (970) 878-3800.

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-2014-0122-EA and it was found to have no significant impacts, thus an EIS is not required.

PUBLIC INVOLVEMENT

This project was designed by BLM WRFO in cooperation with Colorado Parks and Wildlife. Scoping was the primary mechanism used by the BLM to initially identify external and internal issues related to the Proposed Action. Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on September 10, 2013. External scoping was conducted by posting this project on the White River Field Office's (WRFO's) on-line National Environmental Policy Act (NEPA) register on September 15, 2014. As of December 4, 2014, no comments have been 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. The Proposed Action represents a cooperative partnership with Colorado Parks and Wildlife in managing the availability and quantity of seasonal big game forage within a State Wildlife Area in support of State-established big game population objectives. Other facets of the project are designed to rejuvenate and promote vigorous reproduction in aged aspen stands that are at risk of continued decline and loss, and to protect a small isolated wetland from the effects of ungulate trampling and vehicle use.

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:



Field Manager

DATE SIGNED:

12/16/2014