Scoping Enclosure

SPRUCE MOUNTAIN RESTORATION PROJECT 2007

Preliminary Project Description

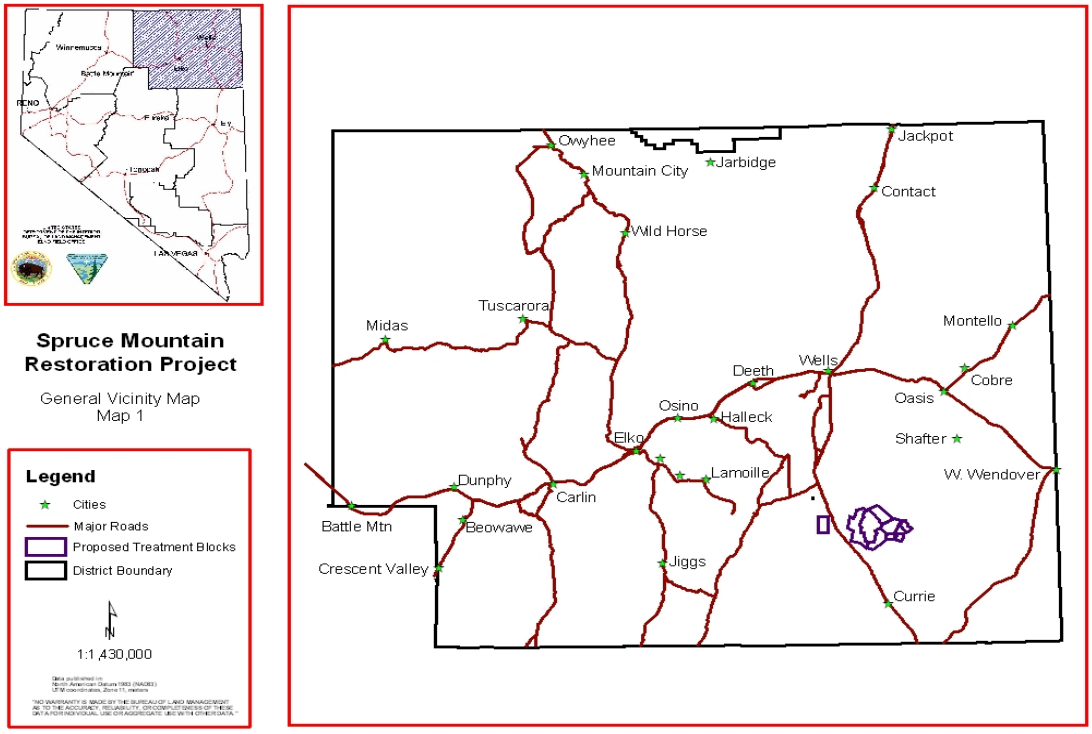
JDR # 6492

March 2007

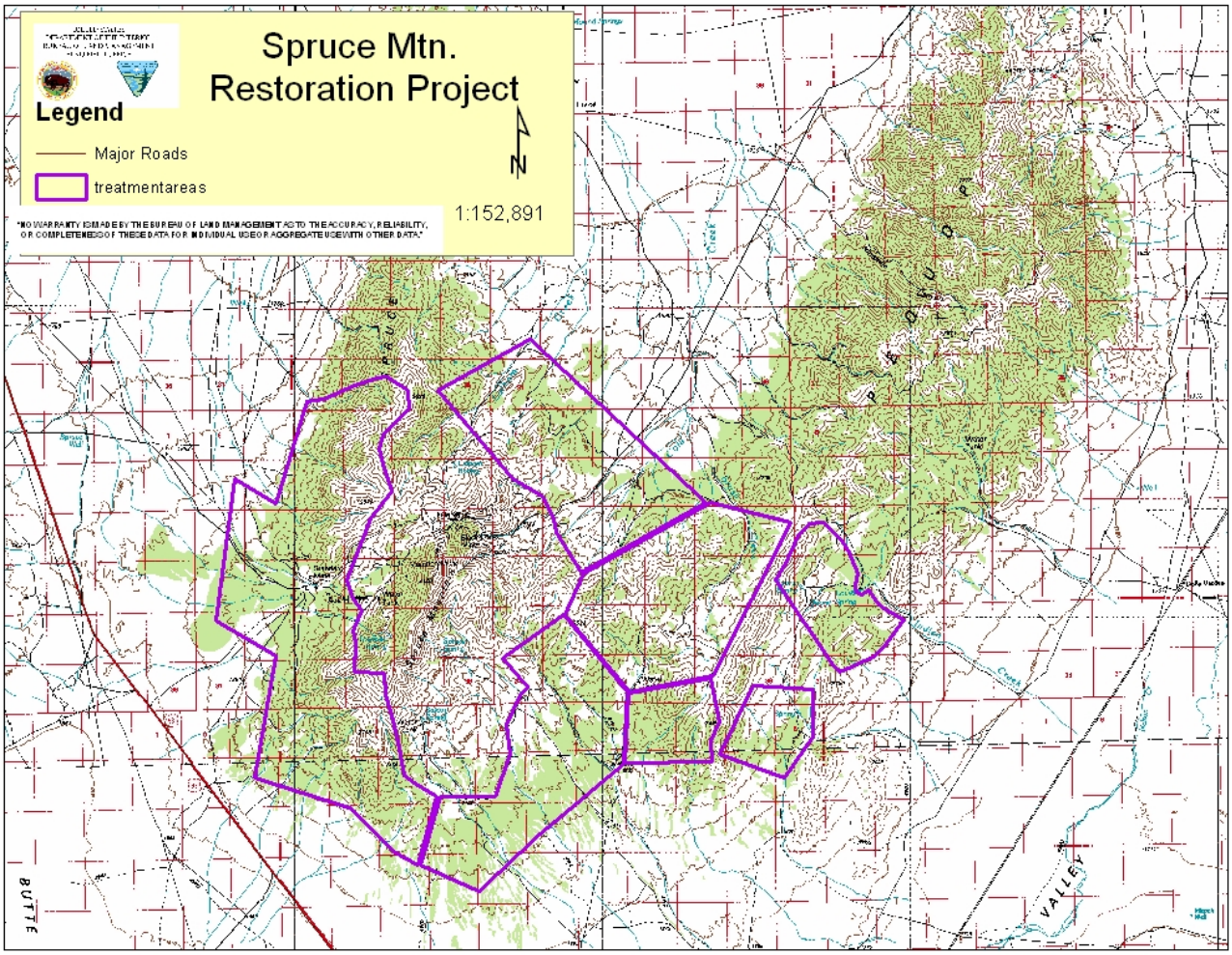
1 - INTRODUCTION

The Bureau of Land Management (BLM) Elko Field Office, in cooperation with the Nevada Department of Wildlife (NDOW), proposes to complete a hazardous fuels reduction project over a five to seven-year period which would allow for the restoration of wildlife habitat in the Spruce Mountain area in southeastern Elko County (See Map 1). This project would occur within the Spruce Allotment, located approximately 30 miles south of Wells, Nevada from Ruby Valley on the west side to the crest of the Goshute Mountains on the east side and encompassing an area of approximately 552,000 acres (see Map 2). This hazardous fuels reduction project would treat up to 16,000 acres of pinyon-juniper woodlands and adjacent mixed conifer or sagebrush communities to improve wildlife habitat, including crucial mule deer winter range.

Map 1. General Vicinity Map



Map 2 .Project Map



Treatment areas would be mostly concentrated within areas that are experiencing encroachment by pinyon-juniper or areas where pinyon-juniper is infested by diseases (such as bark beetle or mistle toe). The higher elevations of Spruce Mountain are dominated by mixed conifers, however, these areas are not being considered for treatment under this proposal. Those sagebrush communities that have been compromised by pinyon-juniper encroachment or where herbaceous understory species are less than adequately represented as suggested by range site descriptions are proposed for treatment Reduction of hazardous fuels within the Spruce Mountain area would improve overall forest health consistent with the Healthy Forest Initiative (HFI) and Healthy Forest Restoration Act, 2003 (HFRA).

In 1962, BLM, in cooperation with the Nevada Fish and Game Commission, now NDOW, completed a 4,544-acre pinyon-juniper chaining in the vicinity of Sprucemont and Basco Springs on Spruce Mountain. Many studies were completed on the chaining to determine the benefits to mule deer. In summary, studies indicated that the upper portions of the chaining were beneficial to mule deer and more use by deer was recorded in the chaining than outside. The studies also concluded that more intensive treatment

of smaller areas stressing complete tree removal and seeding of preferred species should result in longer lasting and more effective results in mule deer habitat improvement within the pinyon-juniper woodland.

1.1 Purpose and Need

Studies show that the expansion of pinyon-juniper has more than tripled in the areas dominated by pinyon-juniper woodlands within the last 150 years. These changes have generally coincided with the introduction of heavy livestock grazing, tree utilization by the mining industry, and fire suppression that followed settlement of the region. An increase in tree dominance results in a loss of understory. A loss of understory further reduces the fuel and consequently fire frequency. Studies conclude that barring some major environmental change or management action, continued forage reduction and decreased fire frequency will continue until trees dominate most of the sites favorable to their survival. This continued tree dominance then jeopardizes the historic woodland sites because under the right conditions, a crown fire could result in a stand replacement wildfire with catastrophic consequences because of the continuous tree canopy. Studies further show that in pinyon-juniper communities where relative tree cover is over 60%, the ability of the understory to respond after a fire is dramatically reduced and potentially opens the site to the invasion by exotics. Any treatments or rehabilitation of these areas could be very costly. The purpose and need for this action is to:

- Promote healthy forests by removing stressed and diseased trees,
- Reduce hazardous fuels to reduce the threat of a catastrophic wildfire,
- Restore and maintain wildlife habitat, and
- Protect historic pinyon-juniper woodlands.

2 - ALTERNATIVES

2.1 No Action

The No Action Alternative would mean that the restoration project would not be completed and there would be no changes to current conditions. Hazardous fuels would not be reduced. Dwarf mistle toe and bark beetle infestations would continue to spread. The threat of a large fire event that may cause a stand replacement fire with catastrophic consequences to wildlife would still exist. Crucial mule deer winter range would continue to degrade as a result of pinyon-juniper encroachment.

2.2 Initially Proposed Action

The proposed action, as developed to date in cooperation with NDOW consists of treating up to 16,000 acres of pinyon-juniper communities primarily within the crucial mule deer winter range on the Spruce and Valley Mountain Allotments with the use of prescribed fire and/or mechanical devices. The areas proposed for treatment have been divided into blocks within which smaller sized treatments would be completed over the next 5-7 years as opportunities of funding, weather, and treatment method allow. All treatments would be completed on public lands.

The treated area would be completed in mosaic designs with irregular edges. Trees to be removed would primarily be Utah Juniper (*Juniperus osteosperma*), but may include some pinyon pine (*Pinus monophylla*) and white fir (*Abies concolor*). Trees infested with mistle toe and bark beetles that occur within the treatment areas would be removed. Stands within the treatment areas would be selected to protect cavity trees, raptor nesting bird habitat, regeneration seed sources, historic woodland sites, and to maintain visual aesthetics of the area. Coordination would be completed on an annual basis with the

permittees to inform them of the areas to be treated. Since the permittees rely on water hauling to move livestock, coordination would allow for some modifications in water hauling operations to minimize impacts on treatment operations and livestock grazing operations. Where applicable, the permittee may be asked to not haul water to certain locations to allow for recovery of treatment area. If this were to occur, it is anticipated that the request would be for no more than one growing season, but may be for up to two years or until establishment of seeded species. A determination would be made based on location of treatment to livestock water sources and type of treatment completed. If such modifications are requested, it would only affect summer grazing use areas on the Spruce Allotment.

Several years of drought in Nevada have stressed trees in the Spruce Mountain area. Stressed trees are then susceptible to diseases like mistle toe and bark beetles. Bark beetles have multiple generations per year and have a tremendous capacity to increase their population. The number of multiple generations is dependent on climate and elevation. Most species have a regeneration cycle of approximately 3 weeks and thus it would be important to handle wood products carefully. The spread of bark beetle infestations is more of a concern when working in warmer temperatures.

Each treatment area would be evaluated to determine the most appropriate treatment type and resource protection measures based on slope, aspect, terrain, soil, vegetation composition, vegetation condition, amount of fuel/biomass needed to be removed, overall access on site, visual impairment, and proximity to major roads. The treatment areas would be designed by NDOW wildlife biologists and BLM resource specialists to represent, at a minimum, forestry, range, wildlife, fuels, soils, hydrology, recreation/VRM, and cultural.

Treatment areas would be focused in areas where residual herbaceous vegetation is adequate to promote native release. However, seeding of primarily native species would be completed in areas where existing herbaceous understory has been compromised and is not sufficient for native release. The treatments would be considered, either individually or in combination, to achieve the desired results. The treatments to be considered for each site include:

Prescribed Burning – Prescribed burning would be completed during the spring months (March thru Mid May) or fall (October thru November). For spring burns, start date would be as early as possible after snow melt to allow for trees to burn with minimal impacts to the soil and understory herbaceous vegetation. Fall burns would begin based on prescriptions outlined in the burn plans for each specific treatment area. Prescribed burning would occur in blocks of 20-150 acres. Maximum acceptable size before suppression tactics are initiated would be 200 acres. However, if the prescribed fire entries threaten to exceed the 200-acre limit, the Burn Boss and on-site resource specialist would have the flexibility to determine whether or not to initiate suppression tactics based on fire behavior, topography, fuel continuity, potential threat for fire spread outside of the maximum allowable area (MAA), and risk to firefighter safety. Therefore, any variation in size would be based on resource specialist input. Burn patterns that allow "fingering" of the burned area to create a mosaic pattern may be one reason to consider a variation in size if it meets the objectives of this project.

Mechanical Treatments – Mechanical treatments would include:

- Roller Chopping – Roller chopping may be considered in slopes less than 8% due to equipment limitations and cost effectiveness. Roller chopping would generally be completed in the fall/winter, especially in areas that may need to be seeded to take advantage of winter moisture. If

seeding of the area is necessary, seed would be broadcast using the seeder boxes on the roller chopper.

- Chaining - A 200-foot Ely chain would be pulled behind two bulldozers, minimum size of a D-7 or equivalent. All treated areas would be double chained and would generally be completed in the fall/winter. Seeding, if determined to be necessary, would be accomplished by: 1) Broadcast seeding behind the Cat on the first or second round, 2) aerial application after the first round, or 3) combination of both one and two.
- Other Mechanical Thinning – may include any other mechanical means of cutting trees from chainsaws to hydro-ax. Depending on the treatment, it may be possible to remove the biomass, chip, lop and scatter, or burn the slash piles. Biomass would include any material less than 4 inches in diameter. If material is lopped and scattered, it will be cut in no more than 2 feet long pieces and scattered no more than 2 feet high. Depending the mechanical device used and if seeding is necessary, it may be accomplished by aerial application or vehicle/drag and would be completed in the fall/winter.

Selective Cutting - Selective cutting may occur in specific areas and may include a single tree to several acres of trees. Selective cutting may include dead, diseased, or healthy trees depending on site evaluation. It may be necessary to cut healthy trees where there are no dead or diseased trees but the area needs to be thinned. Cut trees may be removed, chipped, lopped and scattered, or slash piles burned, based on site evaluation.

3 – Resource Issues

A preliminary list of resources issues to be analyzed in the EA includes:

3.1 Air Quality

Smoke from any prescribed burning fire use could degrade air quality within the project area.

3.2 Soils

Chaining would cause the greatest surface disturbing impacts to soils of all the mechanical treatments. Prescribed burning would remove the vegetation and litter leaving the soil surface open to direct raindrop impact and increase runoff as well as sedimentation, especially on steep slopes. Biologic soil crusts could be destroyed in areas that are burned.

3.3 Water Quality, Surface/Ground

Three major intermittent/ephemeral creeks occur on the east side: Brush Creek, Latham Creek, and Cole Creek. If the vegetation is removed, there would be no interception of precipitation and no surface litter to reduce runoff velocities, so there would be high peak flows downstream. Runoff would increase following prescribed fire.

3.4 Visual Resource Management

The project area is within VRM Class II, III and IV areas. The south, southwest and western exposures of Spruce Mountain, from the crest of the mountain to the lower edge of the pinyon-juniper zone, is in Class II (the extreme western edge of Block 1 and the southern half of Block 3). All of the remaining treatment blocks fall within Class III, with the exception of Block 5 where the northern half of this treatment block falls within Class IV. The Class II VRM objective is to retain the existing character of the landscape.

The level of change to the characteristic landscape should be low. The Class III VRM level of change should not exceed moderate. Within VRM Class IV, the requirements will be met. The mosaic design will minimize visual impacts.

3.5 Recreation

The majority of recreation opportunities within the area consist of dispersed use; there are no developed recreation facilities or sites in the area. Off-highway vehicle motorized recreation is popular throughout the area. The project area is very popular for deer hunting, especially at the end of the deer season in late October/early November following the migration of deer onto Spruce Mountain. Implementation of the proposed action may affect the publics' ability to fully utilize the Spruce Mountain area for some recreational pursuits.

3.6 Wilderness

A portion of the project area (extreme northern boundary of Block 2) runs parallel to the southern boundary road of the South Pequop WSA. Implementation of the treatments would not affect wilderness values in the South Pequop WSA with inclusion of Special Design Features.

3.7 Weeds

Known noxious weeds within the proposed treatment areas includes Scotch thistle (*Onopordum acanthium*) and Hoary cress (*Cardaria draba*). Some scattered patches of cheatgrass (*Bromus tectorum*), an annual non-native species, occurs within the project area.. The disturbance activities associated with the Proposed Action may have the potential to spread the existing noxious weed infestations.

3.8 Vegetation

Sagebrush and non sprouting shrubs would be reduced. The reduction of sagebrush would reduce competition and release nutrients for established grasses and forbs. The decrease in competition and release in nutrients would benefit established grasses and forbs as well as providing for age class diversity in both sagebrush and pinyon-juniper regeneration. Where understory is lacking or species diversity is lost, seeding of the areas would allow for increased species diversity. The selective removal of trees would release water and nutrients and allow remaining trees to grow stronger and more resistant to disease and pests.

3.9 Forestry/Forestry Products

Forest products sold from these areas include Christmas trees, firewood, posts and pine nuts. Little evidence of recent harvesting of forest products has been found in the treatment area. Would this project impact the levels of harvesting of commercial or non-commercial forest products?

3.10 Wild Horses

The proposed project area would occur within the Spruce-Pequop Wild Horse Herd Management Area (HMA). Increased human and motorized activity could disrupt and displace wild horses.

3.11 Range/Grazing

The Spruce Allotment Evaluation and the subsequent 1998 FMUD addressed several issues that resulted in management changes to the current grazing systems on the Spruce and Valley Mountain Allotments (see Map 5). The current grazing permittees are Von L. Sorensen for the Spruce Allotment. How will this proposed action affect the permittees' grazing privileges.

3.12 Wildlife (including Special Status Species and Migratory Birds)

The Spruce Mountain area is designated as crucial winter range for mule deer, and provides antelope and elk habitat. The project area also provides habitat for a variety of nongame birds and mammals. The area provides existing and potential habitat for as many as twenty sagebrush and pinyon/juniper obligate wildlife species. The proposed project would result in a reduction in the pinyon-juniper canopy. This action would directly benefit mule deer, sage grouse, and other sagebrush obligates because it would restore wildlife habitat that has been compromised due to pinyon-juniper encroachment.Without the reduction of hazardous fuels, there is an increased probability for a catastrophic stand replacement fire that will certainly have significant impacts on all wildlife species.

3.13 Cultural Resources

Past cultural surveys recorded a number of significant sites. Cultural inventories will be required prior to project approval in order to avoid significant sites. Cultural resources reports will be written following the surveys of each block or treatment area. The BLM will determine those sites eligible for the National Register of Historic Places. Following these determinations, each project boundary will be re-flagged to avoid all eligible properties.

3.14 Native American Religious Concerns

Tribal representatives have listed (in general) tribal resources, activities, and associated spiritual beliefs that exist in the Spruce Mountain area. This information is considered highly confidential and files are secured at the BLM Elko Field Office. In light of several other projects proposed in the Spruce Mountain area, communications and contacts continue with participating tribal entities. Communications with local Western Shoshone tribe entities have determined that the Wells Band of the Te-Moak Tribe of Western Shoshone will be the most active participant in addressing tribal issues and concerns within the areas in question.