

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

Smith Creek Vegetation Treatment Project

**Livingston Ranger District
Gallatin National Forest
Meagher County, Montana
November 2008**

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USDA Forest Service

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Abstract: This supplement to the August 2007 Smith Creek Vegetation Treatment Project Environmental Assessment (EA) addresses and maps key elk habitat components for the analysis area. The Smith Creek Vegetation Treatment Project is part of a continuing effort by Federal, State, and local agencies and groups to address the risk of wildfire in the wildland urban interface (WUI). The proposed actions include vegetative and fuel treatment activities designed to modify potential wildfire behavior by creating vegetation and fuel conditions that provide for safer firefighter response and public evacuation in the event of a wildland fire. The project is also designed to improve wildlife habitat diversity by maintaining meadow and aspen areas and improve tree vigor in the immediate project area.

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I. INTRODUCTION

This Supplemental Smith Creek Vegetation Treatment Project EA was prepared in response to Montana Federal District Court Judge Molloy's order (CV 08-92-M-DWM) of October 30, 2008 which states "While the Forest Service has complied with the law for the most part, it is deficient regarding mapping of key habitat components for elk. Consequently, in the absence of that mapping, it is impossible to fashion a remedy that could permit the project to go forward."

The order requires the FS to map key habitat components per Forest Plan standard 6.a.5. (p. II-18, Gallatin FP). Those habitat components include: moist areas, foraging areas, critical hiding cover, thermal cover, migration routes, staging areas. Hiding cover was mapped through Timber Stand Management Record System (TSMRS) and this information was presented in the Smith Creek Vegetation Treatment Environmental Assessment (EA) (USDA 2007) (refer to Map 5). According to the EA (USDA 2007), hiding cover is not limiting in the Smith Creek watershed. According to the EA (USDA 2007), key components such as cover, security areas, and road densities would remain unchanged with the proposed action or any of the alternatives. Judge Molloy's order on page 17, states "The EA does not comply with mapping requirements for elk, but does comply with hiding cover and security cover requirements." On page 20, the order states "The Forest Service has complied with the limited part of the Forest Plan's requirement to maintain two-thirds elk hiding cover." On page 22, the order states "Therefore the agency's determination that the project would not violate standards for elk security is not in error."

In response to Judge Molloy's order, other key habitat components have been mapped (refer to Map 2-4). These maps depict moist areas, foraging areas, and thermal cover. Though suitable vegetation fitting the description of thermal cover may be in the project area, thermal cover is not an issue as elk do not winter within the project area. Migration routes and staging areas cannot be mapped in this project area as described below. Effects to elk were reevaluated by analyzing project impacts to elk hiding cover associated with key habitat components.

II. History of the Smith Creek Vegetation Treatment Project

Collaboration with the public, private landowners, recreationists, and other interested parties has been and will continue to be important in the development and implementation of the Smith Creek Vegetation Treatment Project. The proposal was developed with input from adjacent private homeowners, as well as state, county, and local officials.

The initial scoping letter for the Smith Creek Vegetation Treatment Project was sent to interested parties on February 22, 2006. A public meeting regarding the project was held at the Wilsall Community Center on June 29, 2006. A public field trip was held on July 9, 2006. A public meeting/workshop sponsored by the Northern Rocky Mountain Resource and Conservation Development Center (RC&D) in conjunction with the Gallatin National Forest was held on July 19th, 2006 at the Wilsall Community Center.

A second scoping letter was sent to interested individuals on September 29, 2006 as a follow-up to the original scoping letter that sought public comments on the preliminary proposed action. A public meeting was held at the Clyde Park Community Center on November 6, 2006. Another public field trip was held in July 2007.

The Environmental Assessment for the Smith Creek Vegetation Treatment Project was released to the public for a 30 day comment period on August 15, 2007. The subsequent Decision Notice and Finding of No Significant Impact (FONSI) was released to interested parties on December 19, 2007.

Three appeals of the decision were received. The appeals were reviewed by a Northern Regional Office appeal panel pursuant to and in accordance with 36 CFR 215.18 to ensure the analysis and decision for the project complied with applicable laws, regulations, policy, and orders. An appeal disposition letter affirming the decision to implement the Smith Creek Vegetation Project was mailed to the three appellants on March 12, 2008.

A lawsuit challenging the project was filed jointly by the three appellants on July 18, 2008 in the United States District Court for the District of Montana, Missoula Division. Judge Molloy reviewed the case and on October 30, 2008 issued an order enjoining the project and remanding the matter to the Forest Service to conduct mapping of key habitat components for elk as required by the 1987 Gallatin Forest Plan.

III. Elk Habitat Components

The following narrative provides context and discussion.

Moist Areas

Moist areas do occur within the project area and within proposed treatment units (refer to Maps 2 and 4). They include riparian vegetation associated with perennial streams, springs, seeps, or other areas where high ground-water table is near enough the surface to influence above ground vegetation and may provide areas used by elk for forage, water, or wallowing during the rutting season. The map provided was developed initially through a modeling exercise. The Timber Stand Management Record System (TSMRS) was queried for all stand polygons classified as tall willow, low willow, forb dominated seep, wet forb meadow, moist forb meadow, marsh and fen, wet grassland and meadow, moist grassland and meadow, wet forest opening, moist to dry forest opening, stream course, and open water. Not every perennial stream was mapped as not all streams provide forage, thermal or hiding cover such that they are “key” components. Additional moist areas were mapped based on field visits.

Moist areas also occur within final marked units (refer to Map 4). According to the EA (USDA 2007), thinning prescriptions would retain a canopy cover and structure of various age classes that would still serve as hiding cover. Units A1 and G would remove more

material to enhance aspen regeneration but existing aspen boles of all age classes would remain. As noted in the Decision Notice (DN) (USDA 2007) various mitigation measures would be implemented to minimize disturbance in or near features with water, including moist areas.

Foraging Areas

There are areas that provide forage in forested sites and in non-forested sites within the project area (refer to Map 2 and 4). Forested foraging areas were modeled by querying TSMRS for all stand polygons classified as conifer forest (saw timber or pole sized timber) with 10-39% canopy cover. It also looked at seedling/ sapling stands that were either non-stocked (term used for areas that have been harvested or burned with little to no regeneration) or up to 40-69% canopy cover. Forested forage was also considered where the overstory trees were aspen, cottonwood, limber pine, pigmy forest, krumholtz; only aspen was applicable in the project area. Non-forested forage was modeled for all stand polygons classified as <10% forest crown closure that were moist or dry sagebrush, forb dominated seep, moist or wet forb meadow, moist or wet or dry grassland, high elevation rocky grassland, and wet or moist to dry forest opening.

According to the EA (USDA 2007), a conservative estimate for forage cover would be 38%, not counting forage available in forested stands that also provide hiding cover. Foraging is not limiting in the project area. Evidence of this was given through a discussion of current elk surveys for Hunting District (HD) 315 and the Montana State Elk Plan (Montana Department of Fish, Wildlife, and Parks 2004) goals and populations objectives. According to results from Montana Fish, Wildlife, and Parks (MFWP) elk surveys for HD 315, the number of elk observed during the 2006 winter trend survey was the highest count since surveys began in 1974 with 1,562 elk observed (Lemke, office memorandum). Elk population objectives for the entire Crazy Mountain EMU (including both HD 315 and 580) is to maintain a post-season population of 1,580-2,370, or within 20% of 1,975 elk according to the Montana State Elk Plan (Montana Department of Fish, Wildlife, and Parks 2004). Elk population goals have been met for this EMU and are considered to be healthy and widely distributed.

Thermal Cover

Similar to the other habitat components, thermal cover was modeled using TSMRS. Thermal cover is defined as “cover used by animals to ameliorate chilling effects of weather; for elk and grizzly bear, a stand of coniferous trees 40 feet or taller with an average crown closure of 70 percent or more” (USDA 1993). Maps 2 and 4 indicate there are vegetation components within the project area that would serve as thermal cover in the winter. However, elk do not winter within the project area (refer to Map 1). Map 1 clearly indicates that the proposed units are completely within summer range and that there is no winter range, migration routes, or calving areas within the entire project area. According to the EA (USDA 2007), winter range is primarily in lower elevations on private lands. Elk

spend winters divided between the Reese Hills and Oil Hills winter range areas. Elk move to winter range prior to winter and most years prior to general hunting season.

Summer thermal cover was also mapped (refer to Map 2 and 4) though this is not considered a key habitat component. There was no summer thermal cover within the final marked boundaries of units. Summer habitat is generally located in the upper Smith Creek area at elevations above the project area of influence although they can be found throughout the project area depending on the proximity to structures, roads, motorized trails and associated human activity.

Migration Routes

In consultation with Montana Fish, Wildlife, and Park there was no specific migration route identified. Elk migrate diffusely in small groups as weather dictates to winter ranges west of project area (Tom Lemke, personal communication). Map 1 clearly indicates that the proposed units are completely within summer range and that there is no winter range, migration routes, or calving areas within the entire project area.

According to the EA (USDA 2007), use of the area by elk occurs during the spring and fall seasons and during migration. Hunting, particularly bow hunting, is popular during the fall migration period when elk are moving from summer range to winter areas. Elk are generally out of the area before or during the early portion of the general season. Mitigation was recommended to provide quality bow hunting opportunities, to better meet population harvest objectives, and to facilitate fall migration to winter range with a minimum level of disturbance during this time.

Staging Areas

A staging area is a place where elk concentrate to rest and feed during or prior to migration. There is no place within the analysis area where elk group up that could be identified as a staging area (Tom Lemke, personal communication).

Hiding Cover

Mitigation designed to protect wildlife habitat and other resources was identified in the EA and DN (USDA 2007). The mitigation serves to maintain hiding cover around key habitat components. Mitigation pertinent to hiding cover around key habitat components (particularly moist areas) include:

- Retain a no-burn buffer of 100' for burn treatment areas (Unit J) adjacent to Meadow Creek and perennial tributaries (Water Quality).
- No riparian treatment up to 100 feet either side of streams in all units except Units A1, A2, and G where riparian harvest is necessary to meet a fuels treatment objective along critical reaches and where riparian harvest is necessary to meet a deciduous (e.g., aspen) regeneration objective (Fisheries).

- For Units A1, A2 and G, no treatment will be allowed within 15 feet of any perennial stream segment. This is more restrictive than State SMZ rules. This “no harvest” mitigation protects thermal regulation, overhead cover, and protects banks. It also maintains age class diversity of trees along the stream corridor (Fisheries).
- For Units A1, A2 and G, favor leaving the largest diameter trees along riparian corridors. Purpose is to protect those trees most likely to provide anchored and stable large woody debris (LWD) when it is recruited to the channel (Fisheries).
- For Units A1, A2 and G, follow SMZ rules relative to tree retention guidelines. At least 50% of trees ≥ 8 in dbh should be retained within a 50’ distance to the stream edge (Fisheries).
- Follow Snag management direction, Forest Plan Amendment #15 and/ or Northern Region Snag Management Protocol. Retain snags in clumps rather than uniformly distributing them throughout harvest units. Standards for down woody material will follow recommendations of 10-15 tons/acre as per Forest Plan direction (Wildlife).
- Clumps to be retained in Unit B and D will be healthy, late successional trees to create greater diversity of structure and age classes across the landscape (Wildlife).
- Hand or machine treatments (including helicopter) would not be conducted in any of the proposed vegetation units during from September 1 through October 15 to accommodate the concentrated elk migration in the area. Exceptions to this restriction may occur only after consultation with Montana Fish, Wildlife, and Parks (Wildlife).
- Buffer existing springs and other areas exhibiting riparian characteristics and do not allow equipment use within the area of influence (Wildlife).
- Clumps in Units A1, B, D, and G would be designed to retain nesting structure and opportunities for great gray owl. Patch clumps would not be treated and would be at least $\frac{1}{2}$ acre (Wildlife).
- Along the west side of Unit G, and where possible in Unit A1 along the east edge, leave individual trees and clumps in varying sizes and shapes, that have full crowns and the appearance of being open-grown (Visuals).
- Leave clumps and/or individual conifer trees with full crowns around trailheads for setting, shade and parking area containment and definition (Visuals).
- Feather edges of harvest units along roads and trails. Leave groups of trees along roads and trails in unit A1 where possible (Recreation).

In addition, the actual units marked on the ground are smaller than the units originally proposed and analyzed. For example, the original size of unit A1 was 52 acres but was reduced to 37 acres; Unit G was 28 acres but was reduced to 11 acres. Similarly, Unit B and D that were originally proposed at 165 and 125 acres respectively, were reduced to 119 and 66 acres. Helicopter harvest units E and F were also reduced in size compared to the original proposal. The final marked boundaries incorporated mitigation measures such as the desire to leave reserves and clumps within the larger polygons. Therefore it was determined that wildlife issues associated with the implementation of the proposed actions were not significant and hiding cover associated with key habitat components will be maintained.

IV. References

Lemke, Tom. 2008. [Personal communication]. November 5. Livingston, MT: Montana Fish, Wildlife, and Parks, Region 3 biologist.

Montana Fish, Wildlife, and Parks. (2004, August 17 – last update). Montana Elk Winter Ranges, Summer Ranges, Calving Areas, and Migration Areas [Homepage of Montana Fish, Wildlife, and Parks/Inside FWP], [Online]. Available: URL <http://fwp.mt.gov/insidewp/GIS/metadata/elk99.htm>. [2008, November 4].

U.S. Department of Agriculture, Forest Service. 1993. Gallatin national forest plan, Amendment 14. Bozeman, MT: Gallatin National Forest.

U.S. Department of Agriculture, Forest Service. 2007. Smith creek vegetation treatment project environmental assessment and decision notice. Bozeman, MT: Gallatin National Forest.

IV. Maps

Five maps utilized to complete the elk habitat component analysis are included on pages 7–11.

- Map 1- Montana Fish, Wildlife, and Parks Elk Range Map for the Crazy Mountains
- Map 2- Smith Creek Elk Habitat Components
- Map 3- Smith Creek Proposed vs. Final Units
- Map 4- Smith Creek Final Units with Elk Habitat Components
- Map 5- Smith Creek Elk Hiding Cover