

DECISION MEMO
SUNDANCE HAZARDOUS FUEL REDUCTION PROJECT

Bearlodge Ranger District
Black Hills National Forest
Crook County, Wyoming

Introduction

The purpose of this memorandum is to explain the decision to implement the Sundance Hazardous Fuel Reduction Project on Bearlodge Ranger District of the Black Hills National Forest. This project is categorically excluded from documentation as allowed by Forest Service Handbook (FSH) 1909.15 – Environmental Policy and Procedures Handbook, Section 31.2. The Project File is available for public review at the Bearlodge Ranger District office, Sundance, Wyoming.

Purpose and Need for Action

The purpose of this project is to reduce hazardous fuels. The proposed treatments are intended to reduce the severity of wildfire by causing crown fires to drop to the forest floor, and by substantially reducing the continuity of combustible ground and aerial fuels. Reducing wildland fuel accumulations at the ground surface and mid-layer of stands reduces the “ladder fuel” effect, decreasing tree torching and crown fire potential. Fuel treatments can provide defensible space and strategic control points for fire suppression operations, such as safety zones and anchor point for fireline construction or burn out operations.

Sundance and the surrounding subdivisions were identified as a priority **National Fire Plan** ‘community at risk’ in September 2001. Reducing hazardous fuels on federal lands is a vital role of the **National Fire Plan**. Goals of the plan are to prevent loss of life, reduce firefighter injuries, and lessen damage to communities and the environment from severe, unplanned, and unwanted fires. Recent **National Fire Plan** priorities include targeting funding towards wildland urban interface areas with high risk reduction potential, use of third-party contracting that supports rural community stability, and obtaining economic use of treated area by-products. The **Sundance Hazardous Fuel Reduction Project** has been developed to meet these priorities.

The proposed fuel treatments are also consistent with the resource goals and objectives identified in the President’s **Healthy Forest Initiative** of 2003.

Other treatments outside the WUI area are intended to aid restoration of Fire Regime Condition Class as defined in the USDA Forest Service General Technical Report RMRS-GTR-87.2002, page 8, Table 2. The current condition class is rated at 3, where fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range.

Decision

It is my decision to mechanically treat approximately 868 acres and broadcast or concentration burn 1140 acres of hazardous fuels within the **Sundance Hazardous Fuel Reduction Analysis Area** on the Bearlodge Ranger District. (see attached treatment area maps). Activities will take place over the next one to four years with the following modification:

- 271 acres scoped as burning concentrations (of slash) will instead be *accomplished* with broadcast burning. The change is to effectively mitigate impacts to goshawk habitat with better timing by burning outside the nesting season. A broadcast burn will meet the fuel reduction objective at a time when nesting activities are

not taking place. Concentration burning would have been done in the early spring, as snow cover recedes, which is typically early April. This potentially would conflict with the early goshawk-nesting season. Concentration burning would have been less of an impact to patches of reproduction pine, but it is my decision to broadcast burn only in the fall after completion of the nesting season. While broadcast burning may result in higher scorch heights and mortality in small ponderosa pine up to 7 inches dbh, the environmental impacts will be negligible.

- 37 acres scoped as burning concentrations (of slash) will instead be accomplished with broadcast burning. The change is to better treat the slash that now lies in a birch stand that recently had the scattered ponderosa pine sawtimber removed as a hardwood retention treatment. The stand was originally to be treated with burning the concentrations so as to have the least affect to the birch. Zone botany personnel have determined the stand as not being a birch dominated stand. A result of the hardwood retention treatment was a more open and therefore less moist site. It is my decision to broadcast burn the unit, targeting the pine slash fuel and accept some top kill of adjacent birch. The stand can be a study area for birch response to low intensity fire. Where birch is present in this 37-acre unit, the prescription should not exceed one-foot flame lengths or ten chains per hour where concentrations of slash are not present.

The reasons for my decision are:

- The proposal will cause negligible adverse environmental effects.
- The proposal will reduce the probability of devastating wildfires threatening the many urban interface developments found in the project area.
- The proposal is consistent with **National Fire Plan** direction, and the **Healthy Forest Initiative** of 2003, and the **Black Hills National Forest Land Management Plan** as amended by Phase 1 Forest Plan Amendment.

Project Description

The first phase of treatment will be to remove ladder fuels from dry pine/Rocky Mountain juniper sites within the wildland-urban interface (WUI) of the Sundance West subdivision, and Vista West. The largest, best-formed conifer and hardwood trees will be favored for retention. Technically, this is a “thin-from-below” cutting treatment, with pruning of the remaining larger trees. The slash created from this would be piled, chipped, or removed from the site. This will include Rocky Mountain Juniper with Ponderosa Pine for the **Sundance Hazardous Fuel Reduction Project**. The common and creeping juniper species will not be affected. In all situations, aspen, birch, will be favored for retention over pine. Mechanical equipment will be used to remove the ladder fuels on operable slopes. Other operations will include machine chipping, machine piling, cutting with chainsaws, hand piling, burning piles, burning concentrations of slash and fine woody debris, and broadcast burning.

Forest Service crews will burn piles when optimum weather and fuel conditions exist. After burning, piles will be raked and seeded when optimum soil conditions exist.

Objectives

The objectives of this proposal are to begin reducing the continuity of live, dead, standing and downed hazardous fuels in the treatment areas, to protect nearby private property and homes, and to aid fire suppression tactics and strategies in the event of an ignition. The proposal would ultimately reduce the risk of catastrophic fire on public and private lands within the wildland/urban-interface (WUI) and begin to return other areas from Fire Regime Condition Class 3 to a more desirable condition class. The proposal would substantially reduce existing surface and ladder fuels within the treatment areas while restoring and/or maintaining the hardwood component. Healthy

hardwood stands can be used as natural firebreaks for fire control. Retaining the hardwoods within the treatment areas while removing encroaching conifers would reduce the probability of ignition and fire spread while improving overall stand vigor and structure of the hardwoods. Hardwoods also provide nesting and hiding cover for a multitude of wildlife species. Other objectives of the proposal include maintaining and restoring these plant and wildlife habitats and meeting the intent of the congressionally supported **National Fire Plan**.

Mitigation and Monitoring

The following project specific mitigation measures will be incorporated into project implementation to assure objectives are met and resource protection commitments are fulfilled:

- Approximately 50 linear feet per acre of large (greater than 10-inch diameter) downed woody debris will be retained for long-term site productivity.
- Two to four of the largest snags per acre will be retained within the treatment areas. Retained snags will be larger than 10 inches dbh and 25 feet in height if available. Twenty five percent of the snags will be larger than 20 inches dbh or in the largest size class available.
- No road construction or reconstruction will take place.
- Areas within treatment areas identified as potential Region 2 sensitive plant habitat will not be treated or damaged. Treatment area maps indicating suitable sensitive plant habitat to be avoided are located in the project file.
- Areas identified as Cooper's Rocky Mountain Snail (*Oreohelix strigosa cooperi*) habitat will be avoided by use of 100-foot buffer zones. In addition, these areas will ensure adequate ground cover remains to provide hiding cover and mesic conditions necessary for the Red Bellied Snake. Treatment area maps indicating snail habitat buffer zones are located in the project file.
- District botany and wildlife personnel will be involved in project implementation. In the event a sensitive plant or animal species is located after a contract is in place, active coordination between the contractor or purchaser, and the District Ranger, contract administrator, and the biologist will take place to assure appropriate management of the species.
- District heritage personnel will be kept abreast of all ongoing activities. If any cultural properties are discovered during implementation, work will cease until the site has been evaluated.
- 100-foot buffer zones around known archaeological sites have been established. No ground disturbing activities including hand pile construction will occur within these buffer zones.
- Burn pile locations will be raked and seeded with a native weed-free seed mix following pile disposal.
- Broadcast burning will take place only in the fall or after the goshawk nesting season is completed in areas where impacts to goshawk habitat is known to exist.
- Ground disturbing activities such as areas disturbed by machinery will be rehabilitated and seeded with a native seed mix within 6 months of activities. Seed mixtures or mulches will be noxious weed-free.

Scoping and Public Involvement

Internal scoping was conducted in January 2004, with specialists representing wildlife, range, timber, heritage, botany, watershed, and fire resources. Extensive external scoping was conducted in February 2004, included public meetings and mailings. These scoping efforts identified no significant issues.

A news release describing the proposed project and soliciting public comment was sent to over 180 interested parties on January 29, 2004. Over 30 comment letters and/or telephone contacts were received as a result. No significant issues were raised. Responses to these comments are documented and available in the Project File.

Reasons for Categorical Exclusion

This proposal falls under a new category of action made effective June 5, 2003. This category is found in FSH 1909.15, Section 31.2:

“(10) Hazardous fuels reduction activities using prescribed fire, not to exceed 4,500 acres, and mechanical methods for crushing, piling, thinning, pruning, cutting, chipping, mulching, and mowing, not to exceed 1,000 acres. Such activities:

- a. Shall be limited to areas:
 - (1) In wildland-urban interface; and
 - (2) Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface;
- b. Shall be identified through a collaborative framework as described in “A Collaborative Approach for Reducing Wildland Fire Risks to Communities and Environment 10-Year Comprehensive Strategy Implementation Plan”;
- c. Shall be conducted consistent with agency and Departmental procedures and applicable land and resource management plans;
- d. Shall not be conducted in wilderness areas or impair the suitability of wilderness study areas for preservation as wilderness;
- e. Shall not include the use of herbicides or pesticides or the construction of new permanent roads or other new permanent infrastructure; may include the sale of vegetative material if the primary purpose of the activity is hazardous fuels reduction.”

This decision meets all of the criteria included in this new category.

Findings Required by Other Laws and Regulations

Appropriate surveys of the proposed treatment areas were conducted prior to this decision. No extraordinary circumstances exist that will affect heritage resources; threatened, endangered, or sensitive species; or floodplains or wetlands.

Heritage Resources:

A heritage resource field inventory and file search was completed during the summer of 2003. Findings regarding resources eligible for listing on the National Register of Historic Places within the project area were submitted to the Wyoming State Heritage Preservation Office (SHPO). The Wyoming SHPO assigned case #0204RLC008. A heritage resource survey was conducted and report completed and sent to the Wyoming State Historic Preservation Office on June 4th, 2004. No objection was received within 30 days, therefore, the project may proceed pursuant to 36 CFR 800.4d and 800.11d." The National Heritage Preservation Act Section 106 process is completed.

Threatened, Endangered and Sensitive Species:

A field review was conducted in the summer of 2003 to determine if threatened, endangered or proposed plant and animal species exist or have the potential to exist in the project area. Suitable habitat for the Northern goshawk is known to exist in the project area. This project is expected to have no effect on any federally threatened, endangered or proposed animal species and their habitat; consultation with the US Fish and Wildlife Service is therefore not necessary. Effects to the population viability of Region 2 sensitive animal species such as the Black Hills red bellied snake, Cooper’s Rocky Mountain snail, and Finescale dace are not anticipated. In addition, the project area, and particularly the treatment units within the project area exhibit low probability habitat for 13 of 14 Region 2 sensitive plant species on the Black Hills National Forest. Available information on the 14th species, *Botrychium lineare* (narrowleaf grapefern), indicates that it is a habitat generalist, therefore, it is difficult to assess the probability and quality of the habitat present in the project area for this species. The treatments may adversely impact individuals, but not likely to result in a loss of viability in the planning area, nor cause a trend toward federal listing. North Zone Botany and Bearlodge Ranger District Wildlife Biologist specialists’ reports documenting these findings are located in the Project File.

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