Gold Crown Fuels Reduction Project

Scoping Notice & Request for Public Comments
December 19, 2007

The Project Area

The Idaho Panhandle National Forests-Sandpoint Ranger District has begun conducting environmental analysis for the Gold Crown Fuels Reduction Project, in the area commonly referred to as "Gold Hill". National Forest System (NFS) lands within the project area are located in sections 5, 6, and 8 of Township 56 North, Range 1 West of the Boise Meridian; sections 30-32 of Township 57 North, Range 1 West of the Boise Meridian; and section 25 of Township 57 North, Range 2 West of the Boise Meridian, in Bonner County, Idaho.

This project qualifies as an authorized fuel reduction project under the Healthy Forests Restoration Act of 2003 (HFRA). HFRA requires that projects be developed in a collaborative manner. Collaboration has been ongoing throughout the planning process for the Gold Crown Fuels Reduction Project, involving local landowners, interested parties, adjoining land management agencies, and the Bonner County Wildland Urban Interface Fire Mitigation Planning group.

Why is this project being considered? The purpose and need…

This purpose and need addresses the goals and objectives set forth in the Idaho Panhandle National Forests' (IPNF) Forest Plan (1987), National Fire Plan, Healthy Forests Initiative, the Healthy Forests Restoration Act (2003), and the Bonner County, Idaho Wildland Urban Interface Fire Mitigation Plan. This purpose and need also responds to ecological recommendations made in the Interior Columbia Basin Ecosystem Management Project. The District hopes to achieve three objectives with this project.

The primary objective of this project is to reduce wildland fuels on NFS lands and lessen the risks associated with a landscape fire event in the area between Bottle Bay and Sagle Slough. This area has been identified as wildland-urban interface (WUI)—an area or zone where structures and other human development intermingle with wildland or vegetative fuels. The Bonner County Wildland/Urban Interface Fire Mitigation Plan collaboratively identified this area as a high priority for reducing the fire risk from wildland fuels and for mitigating fire risk by working with homeowners in the at-risk areas for structure protection and defensible space around their homes.

The secondary objective of this project is to improve the overall health and resilience of the residual forest stands. Reducing competition and enhancing diversity of species will increase the forest's ability to not only withstand catastrophic fire effects, but also enhance resistance to insect and disease outbreaks. Many of the forest stands are currently being stressed by a combination of factors, including drought, root disease, competition, and bark beetle attacks. The predominance of homogenous stands of Douglas-fir across the hillside exacerbates many of these problems, and could result in extensive mortality in the area if left untreated.

Additionally, fuel reduction efforts should enhance the effectiveness of fire suppression tactics, when fires do start in the future. We cannot significantly influence fire ignitions; we know fires will continue to occur. The factor we can influence is to what extent. The NFS land in this area is surrounded by private land, flanked on the western side by a high-traffic railway line, and is utilized heavily for recreational purposes. Humans are a primary cause of fires in this area, and lightning strikes have been and will continue to be additional sources of fire ignitions. Additionally, access in the area is somewhat limited. However, fuel reduction and silvicultural management techniques can help modify fire behavior, limiting areas that can potentially become or sustain a stand-replacing, crown fire event.

What are we proposing to do?

In order to evaluate the actual fire risk related to wildland fuels in this area, the Forest Service began forest stand evaluations late in 2006. While performing walk-through examinations of forest stands, foresters and fuel specialists identified and prioritized areas in need of fuel reduction treatment by considering existing stand conditions and expected stand development; fuel type and hazard; insect and disease mortality within the stand; adjacency to private land, public infrastructure or roads; past and current fire history; as well as spatial arrangement on the landscape.

Once a stand was identified as a priority for treatment, several other factors were considered to determine the type and feasibility of necessary treatment. Such factors include extent of tree mortality; severity of insect infestation or disease infection; density of stand (number of trees per acre); species composition; accessibility; slope/terrain; as well as the quantity and size of the existing fuel components.

Through this project, the Sandpoint Ranger District proposes fuel reduction treatment on approximately 610 acres of NFS land. Methods of fuel reduction and silvicultural improvements would include mechanical removal of trees in the form of timber harvest and slash treatment, hand slashing and burning of ground and ladder fuels in some areas, and precommercial thinning of certain stands of younger, sapling-size trees. Slash would be treated using a variety of methods. Table 1 summarizes treatment types. For further information regarding proposed treatments, see "Description of Proposed Treatments" section. The enclosed map will be helpful for site-specific reference.

Table 1. Summary of Treatment Type

Silvicultural Treatment	**Slash/ Fuels Treatment**	**Acres**
Thinning	Grapple Pile & Burn	90
Thinning	Corridor Piles & Burn	36
Thinning with Group Selections	Grapple Pile & Burn	99
Thinning with Group Selections	Corridor Pile & Burn	24
Thinning with Group Selections	Prescribed Broadcast Burn	116
Regeneration Harvest	Prescribed Broadcast Burn	179
Regeneration Harvest	Yard Unmerchantable Material; Landing Pile & Burn	38
Overstory Removal; Precommercially Thin saplings	Hand Pile & Burn	6
Special- Hazardous Fuels Harvest on Rock Outcrops	Prescribed Broadcast Burn	16
Hand Thin	Hand Pile & Burn	6
APPROXIMATE TREATMENT ACRES		610

How can you be involved in this project?

Public comments are invited on this proposal. In order to benefit the analysis of this project, comments should be received by January 22, 2008. Comments may be submitted to Jennifer Costich-Thompson, Project Leader in writing by mail, fax, email, or in-person to the Sandpoint Ranger District, 1500 Highway 2, Suite 110, Sandpoint ID 83864; Phone: (208) 263-5111; Fax: (208) 265-6670; email: jcostichthompson@fs.fed.us. A comment form is attached for your convenience.

Project Area Background Information

Shrubs, grasses, scattered timber and rock outcrops dominate the southern and western aspects in this area. Narrow strips of trees also occur on the western aspects between rocky outcrops. Dense forest stands comprise most of the northern and eastern slopes, as well as draws and riparian areas throughout the area. Although most of the stands are a mixture of conifer species, some moist draws and benches also contain a deciduous hardwood component, including red alder, paper birch, and rocky mountain maple.

A large portion of the project area probably evolved under a mixed-severity, mixed-mosaic fire regime. In essence, that means that fire would historically have occurred at varying intensities across the landscape, resulting in mosaics of different acreages, with a diversity of forest stands at different life stages, and a variety of different vegetation types (primarily related to soils, aspect, and fire frequency).

For example, the rocky outcrops which dot the area historically burned more frequently than they do now. These areas would have predominantly consisted of only a few, larger individual

trees (probably ponderosa pine and Douglas-fir), with an understory of native bunchgrasses and low shrubs. In these areas, the more frequent fires in past decades usually occurred as lower intensity ground fires, which rejuvenated grass and shrub components and limited additional tree seedling encroachment. Today, however, many of these areas have incurred excessive shrub growth and tree encroachment, which increases the likelihood of larger, more intense fires that could even kill the larger, relic trees. Essentially, these savannahs and brush fields (that used to be natural fuel breaks) will not be as effective if left untreated.

Moister forests in the area experienced fewer low-intensity, ground fires than the drier, rock outcrop areas described above. However, some stands still would have incurred occasional lower intensity fires. Such fires would have consumed patches of seedlings/saplings in certain areas, thinned out the overstory forest stand, and reduced fuel accumulations on the ground. Stand-replacing, higher intensity fires were infrequent in these areas, which allowed some stands to reach maturity. Today most of these stands have not experienced any low-intensity ground fires during the course of their life. Therefore, as they near maturity, they are denser and have accumulated more fuels than the forests of decades past. Such conditions could result in more intense fires in the future if left untreated.

The last large, stand-replacing fire in the project area occurred in 1922, which effectively burned over 1300 acres. Although scattered stands across the hillside were not affected by the fire (primarily those in wet draws), many of the stands were completely consumed. As a result, many of those forest stands regenerated in the first five years or so following the event and are approximately 77-82 years old at present. All other fires since that time have been suppressed while still very small in size (usually less than ½ acre.) Most of these stands, which are now nearing maturity for this type of site, are experiencing competition for either water or sunlight, related to stand density and drought stress. These stressors decrease a tree's ability to resist disease infection and insect attacks, both of which are adding to the extensive mortality in the area and fuel loading across the landscape.

Due in part to fire suppression, the future of fires and potential fire behavior has changed. However, fire suppression is still necessary in this area of wildland-urban interface, where hundreds of people could potentially be affected by a wildland fire. Therefore, it is important for us to try to create fuel breaks and mosaics of different vegetation types or age/size classes across the landscape, emulating with management techniques what historic fire regimes once created.

Description of Proposed Treatments

Treatment Type 1– Commercial Thinning

Approximately 126 acres of forest stands would be treated using a commercial thinning harvest. Areas where this treatment would be used are generally dense forest stands where removal of some merchantable trees is necessary to attain fuel reduction and silvicultural objectives. These stands tend to be dense with overlapping tree canopies and contain substantial amounts of "ladder" or ground fuels.

These stands would be thinned by harvesting approximately one-half of the trees. The larger, healthier trees would be favored for retention. Thinning would create spaces between tree crowns, decreasing the probability that fire could travel from one crown to another. In addition,

some of the smaller, "understory" trees would be removed from these areas to reduce the "ladder" fuel component and decrease the chance that a ground fire could travel from the forest floor up into the tree crowns.

The resulting slash from the thinning, as well as some fuels on the forest floor, would then be disposed of in the following manner. Approximately 91 acres would be mechanically-piled by an excavator type machine, with a "grapple" thumb (known as "grapple-piling"). Piles would be burned after allowing them to dry out. The remaining approximately 36 acres would be harvested using a skyline system, and the subsequent slash would be treated by grapple-piling the skyline corridors and burning the piles after they dry out.

Treatment Type 2– Commercial Thinning with Group Selection Openings for Reforestation

Approximately 238 acres of forest stands would be treated using a thinning with group selection method. Stands designated for this treatment generally require some spacing between tree crowns to reduce fuels; however, within these stands there are also some small (2-7 acre) pockets of severe root disease-infected trees. Therefore, the severely infected trees and susceptible species in these pockets would be harvested entirely, resulting in openings large enough to plant preferred species, such as western larch, western white pine, or ponderosa pine (depending on the site.)

Fuels and slash would then be treated through the following methods. Approximately 99 acres would be grapple-piled, and piles would be burned after allowing them to dry out. Approximately 24 acres would have skyline corridors piled and burned. The remaining 116 acres within this treatment type would be suitable for prescribed, broadcast burning following harvest. (Only certain species and larger size classes of residual trees can tolerate a broadcast underburn.)

Treatment Type 3 – Regeneration Harvest and Reforestation

Approximately 217 acres of forest stands would be treated using an irregular shelterwood method of stand regeneration. Areas where this treatment would be used are generally very dense forest stands, which could not withstand a thinning treatment. In many cases, the stand is either suffering from severe mortality (due to competition, insect attacks, or disease infection) or the majority of trees are so dense that they grew tall and "spindly" and would not be wind-firm following a thinning treatment.

Following, or in conjunction with, a regenerative harvest the areas would also be slashed to remove small undesirable and cull trees, the primary ladder fuel component. Then to reduce fuels and prepare the sites for planting, approximately 178 of those acres would be broadcast burn. Approximately 38 acres of this treatment type cannot successfully be broadcast burned, so slash and non-merchantable material in these areas would be "yarded" to a landing, piled, and burned.

After the regenerative harvest and slash/fuel treatments are completed, the sites will be planted with preferred tree seedlings. Fire, disease, and insect-resistant species suited to the site (such as larch, ponderosa pine, and/or white pine) will be favored for planting, to help increase diversity and the long-term resilience of the resulting new forest stand.

Treatment Type 4 – Special Hazardous Fuels Harvest on Rock Outcrops

Approximately 16 acres of forest stands will be treated using this method. These are dry, rocky outcrops described earlier in the "Background Information" section. Some of these outcrops are located in areas that we can effectively treat and reinstitute a fire regime more similar to historic fire intervals. Large, relic trees will be left, but younger, encroaching trees will be harvested. Then these areas will be burned, rejuvenating grasses, forbs, and shrubs. The

resulting openings, which will have a very natural appearance that blends into the landscape character, would be maintained in the future by prescribed broadcast burning every 10-30 years.

Treatment Type 5– Hand Thinning & Piling

Approximately 6 acres will be treated using this method, primarily adjacent to the northernmost portion of the Gold Hill Trail (trail no. 3). This treatment will focus on disposal of both ladder and ground fuel accumulations immediately adjacent to the trail, which represents a significant fire risk. In this area, the ground fuel accumulations are so heavy that should a fire start, it would almost certainly move up into the crowns of the overstory, becoming a more significant, stand-replacing fire. Hand treatment will consist of slashing ladder fuels, cutting up larger down fuels on the ground, piling the fuels and burning piles to reduce the hazard.

Treatment Type 6 – Overstory Removal/Precommercial Thinning

Approximately 6 acres will be treated using this approach. The area slated for this treatment is a stand that was regenerated about 13 years ago, using a shelterwood method. The overstory trees are scattered Douglas-fir, western hemlock, grand fir, and cedar which were left to "shelter" the larch and white pine seedlings planted in the understory. Now that the larch and white pine plantings are older (6-15 feet tall), they are beginning to compete with the overstory trees for sunlight. Therefore, the overstory needs removed to allow the planted seedlings/saplings room to grow and thrive. If left untreated, the shade from the overstory would actually inhibit growth in the new stand, potentially resulting in death of those preferred species.

In addition, following the overstory removal, because other shade-tolerant seedlings (such as grand fir and hemlock) have also started to establish within the stand, both planted and natural regeneration will be precommercially thinned. An early thinning such as this improves the growth and vigor of the stand, reduces competition, decreases certain fungal diseases, and helps maintain both diversity and a component of the preferred disease and insect-resistant species.

Description of Proposed Road Work

In order to adequately access the fuel reduction and forest restoration treatment areas, some road maintenance, reconstruction and new construction activities would be required. The four proposed permanent road segments total 2.2 miles in length. The proposed temporary road segment is approximately 0.13 mile in length. Refer to enclosed project map that displays the proposed new road locations.

Table 2. Summary of Proposed Road Work

New Permanent Road Construction- put in storage following project activities	2.2 miles
Existing Road Access (FS Road 2642/ Sky Meadow Road)- requires maintenance	7.3 miles
Existing Road - reconditioning	0.30 mile
New Temporary Access	0.13 mile