

# Ham Lake Reforestation Project

## Decision Memo

Superior National Forest  
Gunflint Ranger District  
Cook County, Minnesota  
T66N R4, 5W; T65N R2, 3W

### PURPOSE OF THE ACTION

It is my decision to reforest approximately 3,000 acres in the upper (northern) Gunflint Trail area. The purpose of this project would be to reforest areas of the Superior National Forest burned in the Ham Lake fire to achieve desired conditions of vegetation composition and structure and to achieve scenic objectives.

The Ham Lake fire started on May 5, 2007 and burned approximately 75,000 acres in the United States and Canada. Within the Superior National Forest, the fire burned about 13,000 acres outside the Boundary Waters Canoe Area Wilderness (BWCAW) and about 16,000 acres inside the BWCAW. A Burned Area Reflectance Classification (BARC) analysis of the Ham Lake fire revealed a mosaic pattern of burning. Some areas within the fire perimeter were not burned, while other areas were burned to varying degrees of severity.

Many areas burned in the Ham Lake fire are experiencing sufficient natural regeneration to restock the forest within a timeframe typical of the ecosystems present on the Superior National Forest. This is especially the case in areas with mature aspen and jack pine where field observations indicate abundant regeneration exists. However, there are open areas, many of which were affected by the 1999 blowdown, that will likely regenerate more slowly with a larger component of hardwood. Other burned areas contain immature trees that did not yet produce seed when the Ham Lake fire occurred. Accordingly, reforestation treatments in these areas will facilitate the creation of the future forest and provide an opportunity to increase the amount of pine.

Increasing the component of red and white pine in stands in the mid to upper Gunflint Trail area will move towards scenery objectives and will help fulfill restoration goals for increasing the proportion of red and white pine on the forest, forest structure and wildlife habitat. The forest of the future will have a greater proportion of tall, long-lived, majestic red and white pine to benefit scenery and wildlife viewing opportunities in the area.

A secondary, long-term benefit of this project will be the creation of a mature, tall, mixed pine forest which could act as a fuel break. In the first few years after these stands are established, there will be a fire hazard due to the possibility of fire occurring in the short pine saplings. However, if through collaboration between the Forest Service and the community, there was long-term maintenance of these stands by underburning or removing the fuels in the understory, there will be a mature, tall forest that will reduce the risk of damage by wildfire. A smaller quantity of understory fuels will be present and crown fires are less likely in this forest type than in other forest types. Accordingly, a severe fire entering mature stands containing a significant red and white pine component may decrease in severity and help allow structures and natural resources located in the Wildland-Urban Interface area of the mid to upper Gunflint Trail to be protected from damage.

Seeding of jack pine and black spruce will help address the concerns for reforestation created by the Ham Lake fire, other fires and the 1999 blowdown as discussed above. Additional jack pine/black spruce forest will also help achieve restoration goals for increasing the proportion of conifer species on the forest, forest structure and wildlife habitat.

## The Decision

The decision includes slightly more than 1,000 acres of planting red and white pine and about 2,000 acres of seeding jack pine and black spruce. The locations of stands proposed for reforestation are shown in Maps 2a, 2b, 2c and 2d. In the Treatment Tables, Table 1 displays stands that will be planted and Table 2 displays stands that will be seeded.

In the table, the column marked 'Treatment Acres' is the estimated number of acres that will be planted or seeded. Actual acres planted may be less because of limited suitable planting sites (not all of the stand burned, too rocky, etc.) or adequate natural regeneration of desired species. Actual seeding acres may be substantially less because adequate natural regeneration may occur and additional seeding will be of limited value. While some surveys have been done of the reforestation areas, there is not enough information to know exactly how much natural regeneration will occur. This project is trying to take advantage of the seed bed created by the Ham Lake fire to increase the amount of red, white and jack pine on the landscape but the new forest will likely be a mix of species regenerated naturally and through planting or seeding.

## Description of Treatments

- **Planting:** A mixture of red and white pine will be planted at approximately 200-400 trees per acre in most areas. For the majority of units, the planting will be in addition to natural regeneration occurring in the stands or areas where there is still remaining overstory (unburned). A few sites may have higher trees per acre planted (400+) because there is more open area. Units where the majority of the unit will be planted and little natural regeneration is expected will be converted to a mixed pine type.
- **Seeding:** The majority of the seeding will be accomplished through aerial seeding. Limited amounts of hand seeding may occur along trails.
- **Release:** Release will be the removal of competing vegetation for about 6 - 10 feet around the planted/desired tree species. Table 1 shows release needs for the units with the highest likelihood of competition. All units will be checked for release needs during stocking surveys.

This project will follow Forest Plan standards and guidelines to minimize adverse effects. The following mitigation will be used:

- If any threatened, endangered or sensitive plants and animals or their nests, dens or roost trees are found during planning layout or operations, activities will be temporarily halted in the area and the District Biologist or Forest Botanist will be notified. The District Biologist or Botanist will assess the risk to species and where appropriate; mitigation measures will be implemented prior to restarting operations. The Forest Plan, recovery plans and conservation strategies will be used when making mitigation recommendations.
- Protect known three-toed woodpecker nest sites within a 200-foot radius surrounding nest sites until young have fledged.

- Management activities for the bald eagle will be governed by the Northern Lakes States Bald Eagle Recovery Plan (1983) and MN DNR recommendations (2008). In general, prohibit disturbance within 330 feet of a known nest and limit activities within the secondary and tertiary zones during the critical nesting period.
- Minimize activities that may disturb nesting pairs of osprey within 330 feet of the nest during critical nesting season (April 1 - August 15). From 330 to 660 feet from nest trees, allow only those management activities that maintain, protect, or enhance nesting area habitat.
- During project implementation, reduce the spread of non-native invasive species. Provide volunteers and staff with information on invasive plants. Demonstrate methods for reducing weed spread such as removing seeds from clothing, packs, etc.
- Trail's End bald eagle nest will be checked in April and May to determine if it is active. If the nest is occupied mitigation measures will be applied to prevent disturbance (see above).

Monitoring will include stocking surveys after 1<sup>st</sup> and 3<sup>rd</sup> growing season following reforestation. Units will be surveyed for the number of acceptable trees per acre. Stands planted to red and white pine will be checked for pruning and release needs.

No roads will be constructed by this project.

## PUBLIC INVOLVEMENT

There have been extensive and ongoing discussions about the Ham Lake fire and what actions to take in the aftermath among the local community as well as relevant governmental agencies. These discussions have been considered in the course of developing this proposed action. Collaboration is underway with community groups to organize volunteers, material and financial resources to complete reforestation treatments described in this proposed action. The Gunflint Trail Scenic Byway Committee has demonstrated an especially high level of commitment and support for this project.

## REASON FOR CATEGORICAL EXCLUSION

This action can be categorically excluded from documentation in an environmental impact statement or an environmental assessment because it falls under Category 11, in Section 31.2 of the Forest Service Handbook 1909.15-Environmental Policy and Procedures Handbook. This category is for 'Post-fire rehabilitation activities, not to exceed 4,200 acres (such as tree planting, fence replacement, habitat restoration, heritage site restoration, repair of roads and trails, and repair of damage to minor facilities such as campgrounds), to repair or improve lands unlikely to recover to a management approved condition from wildland fire damage, or to repair or replace minor facilities damaged by fire.' No new roads are allowed to be constructed or herbicides used, and project activities must be completed within 3 years of the decision. This project will treat about 3,000 acres for planting and seeding; no new roads will be constructed; and

implementation will occur within three years; therefore this project meets the criteria for Category 11.

As summarized below, no extraordinary circumstances related to the proposed action exist.

#### 1. Threatened or Endangered Species or their critical habitat

The Endangered Species Act requires that federal activities not jeopardize the continued existence of any species federally listed or proposed as threatened or endangered, or result in adverse modification to such species' designated critical habitat.

The Canada lynx is the only federally threatened species on the Superior National Forest at this time. There are no endangered species and there is no critical habitat within the project area. The bald eagle and the Great Lakes wolf population have recently been removed from protection under the Endangered Species Act. We will continue to consider project effects to bald eagles and gray wolves in our analysis of Regional Forester Sensitive Species. We have documented Canada lynx on the Gunflint Trail and there is suitable habitat within the project area.

This project *may affect but is not likely to adversely affect* the Canada lynx based on the Biological Assessment. This determination is made using the following information:

- We expect no changes to occur in the abundance and availability of denning habitats. Lynx favor patches of older forest for denning. There will be no change in denning resources as a result of this project.
- We expect minimal changes to occur in the abundance and availability of prey habitats. Snowshoe hares are the primary prey for lynx. Snowshoe hares use early successional habitat for feeding and cover
- We do not expect the proposed treatments to affect travel corridors, i.e. the ability of lynx to move through the forest.
- There are no permanent roads proposed with this project so there will be no change in existing road/trail density numbers.
- Human disturbance- In general, planting is proposed adjacent to existing roads and settlements where human activities already occur. Disturbance (planting and aerial seeding) will be short in duration and will have a minimal impact on denning lynx.

The U. S. Fish and Wildlife Service concurred with the determination in the Biological Assessment on March 6, 2008.

#### 2. Floodplains, wetlands and municipal watersheds:

##### Floodplains:

Reforestation activities will not affect floodplains. This project will not result in significant floodplain related impacts.

### Wetlands:

Reforestation activities will not affect wetland resources. This project will not result in significant wetland impacts.

### Municipal Watersheds:

There are 2 municipal watersheds located on the Superior National Forest: Burntside Lake that serves the community of Ely and Colby Lake which serves the community of Hoyt Lakes. The project area is located 50 miles east of Burntside Lake and 72 miles northeast of Colby Lake. The distance to these municipal watersheds and drainage patterns of the affected area preclude overland effects of this project on these watersheds. This project will not result in significant municipal watershed related impacts.

### 3. Congressionally Designated Wilderness, Wilderness Study Area, National Recreation Area:

The proposed reforestation activities will have minimal or no impact to wilderness character. This determination is made based on the following reasons:

- Project activities are confined to stands located outside the BWCAW.
- Sound impacts will be minimal as motorized equipment will not be required to complete planting treatments besides the use of vehicles and ATVs to transport people and seedlings to the stands. Aerial seeding will create sound of a short duration. Motorized vehicles on existing roads and ATV trails and regular Beaver flights to patrol for fires are characteristic of the mid to upper Gunflint trail, and project activities will be similar in character to existing sounds and of a short duration in any case.
- Wildlife that use habitat across the landscape both inside and outside the BWCAW will likely benefit from an increase in the proportion of red and white pine outside the BWCAW as an increase in red and white pine is identified as an objective in the Forest Plan (p.2-23).

There are no National Recreation Areas or Wilderness Study Areas on the Superior National Forest.

### 4. Inventoried Roadless Areas:

The western end of Unit 018-051 overlaps a Forest Plan inventoried roadless area. This project will not construct any permanent or temporary roads. Access to Unit 018-051 will be accomplished on foot to complete reforestation activities. The proposed planting will restore red and white pine to the area. This project will not have adverse effects to the Forest Plan inventoried roadless area that overlaps Unit 018-051.

Project activities do not overlap any 2001 Roadless Area Conservation Rule (RACR) areas. The nearest 2001 RACR area is 9.4 miles away from project Units. This project would have no effect on 2001 RACR areas.

### 5. Research Natural Areas:

There are no Research Natural Areas or Candidate Research Natural Areas within the vicinity of the project area. The closest area, Blueberry Lake Candidate Research Natural

Area, is 19 miles away from the nearest project Unit. This project will have no effect on Research Natural Areas or Candidate Research Natural Areas.

6. American Indian and Alaska native religious or cultural sites and archaeological sites, or historic properties or areas:

In compliance with Section 106 of the National Historic Preservation Act of 1966, as amended and the Superior National Forest Land Management Plan (2004), a heritage resource inventory will be conducted for the project area. The goal of this inventory is to identify historic properties in order to protect them from project activities. Results of this inventory will be documented in the *Ham Lake Reforestation – Planting and Seeding Cultural Resource Reconnaissance Report (CRRR) 0802004* and reported to the Minnesota State Historic Preservation Officer (MN SHPO) in the 2008 Superior National Forest Heritage Annual Report. Historic properties and/or features will be excluded from project activities, pursuant to S-HR-9 of the Forest Plan, which places a buffer around heritage resources to ensure their protection and avoidance from project activities.

## FINDINGS REQUIRED BY OTHER LAWS:

Forest Plan Consistency (National Forest Management Act): The Superior National Forest Land and Resource Management Plan (Forest Plan) was approved in 2004, as required by the Act. This project will be consistent with the Forest Plan for the following reasons:

1. This project is consistent with the Landscape Ecosystem objectives set forth in the Forest Plan. The vegetation in the Ham Lake fire area outside the BWCAW is dominated by the Jack Pine-Black Spruce Landscape Ecosystem (LE) (8,946 acres, 77 percent). The Mesic Aspen-Birch-Spruce-Fir LE (1,095 acres, 9 percent), Mesic Red and White Pine LE (1,058 acres, 9 percent) and Lowland Conifer within other components LE (471 acres, 4 percent) comprise the remaining Landscape Ecosystems<sup>1</sup>. See the 2004 Superior National Forest Land and Resource Management Plan for an explanation of Landscape Ecosystems. This project will increase the component of red, white and jack pine across the landscape.
2. The proposed action is consistent with the Management Area direction as set forth by the Forest Plan. The project is located in the Recreation Use in a Scenic Landscape Management Area. This Management Area has a goal for a ‘big tree’ character to the forest. Over the long-term, the reforested areas will contribute to the ‘big tree’ character through the establishment and maintenance of mixed pine stands containing large, old trees.
3. The proposed action is consistent with the forest-wide goal to ‘promote ecosystem health and conservation using a collaborative approach to sustain the nation’s forests and watersheds’ (p. 2-5). It also is consistent with Forest-Wide Objective O-ID-2 to ‘establish, maintain, or improve the condition of vegetation using prescribed fire, mechanical treatments, and other tools’ (p. 2-19) and Forest-Wide Objective O-VG-2 to

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<sup>1</sup> The total acreage for Landscape Ecosystems (11,571) does not match the total estimated by Burned Area Reflectance Classification (13,081) since they were estimated using different methods.

‘increase acres of red, white and jack pine, spruce/fir and northern hardwood vegetation communities. Decrease acres of aspen vegetation communities’ (p. 2-23).

4. All relevant Forest-Wide Goals and Forest-Wide Standard Conditions, Objectives, Standards and Guidelines in the 2004 Superior National Forest Land and Resource Management Plan (pp. 2-5 and 2-6) will be met.

Sensitive Species (Forest Service Manual 2670) – This direction requires analysis of potential impacts to sensitive species, those species for which the Regional Forester has identified population viability is a concern. The current Regional Forester Sensitive Species List for the Superior National Forest was developed for the 2004 Forest Plan and was updated in October of 2006 (<http://www.fs.fed.us/r9/wildlife/tes/>). A Biological Evaluation was completed for the Ham Lake Reforestation Project. We do not expect these management actions to result in a trend toward federal listing or a loss of viability. For some species we expect *no effect* as a result of this project.

IMPLEMENTATION DATE: Implementation will begin in the spring/summer of 2008.

APPEAL OPPORTUNITIES: This project includes only reforestation activities and is not subject to appeal (36 CFR 215.4).

FURTHER INFORMATION : Further information is available on the “Plans and Projects” page of the Superior National Forest web site at: [www.fs.fed.us/r9/superior](http://www.fs.fed.us/r9/superior). If you have further questions, contact Myra Theimer at 218-387-3243.

#### SIGNATURE AND DATE

/s/Dennis D. Neitzke \_\_\_\_\_  
Dennis D. Neitzke  
District Ranger

March 26, 2008 \_\_\_\_\_  
Date

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