



United States  
Department of  
Agriculture

Forest  
Service

July 2004



# Decision Memo

## Alpha Spruce Dieback

Medford-Park Falls Ranger District  
Chequamegon-Nicolet National Forest  
Price County, Wisconsin

*Legal Description:* Project Area 53 is located in T40N, R2E, Section 36.  
Project Area 108 is located in T40N, R3E, Section 20. Project Area 143 is  
located in T38N, R3E, Section 19

**For Information Contact:**

**JIM LALONDE**

USDA Forest Service, Medford-Park Falls RD  
1170 4<sup>th</sup> Ave. S.; Park Falls, WI 54552  
[(715)762-2461] email: [jlalonde@fs.fed.us](mailto:jlalonde@fs.fed.us)

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## The Decision

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### BACKGROUND AND PROJECT HISTORY

There is a severe decline with associated mortality in white spruce in some areas of the Chequamegon-Nicolet and Ottawa National Forests. The cause of this decline is as yet unknown, but suspect agents include drought stress, other stresses caused by range limits and seed sources, and organisms such as *Setomelanomma holmii*, *Rhizosphaera kalkoffii* (Rhizosphaera needle cast), *Armillaria* spp. (Armillaria root rot), *Inonotus tomentosus* (a root rot fungus that causes the disease known as "stand-opening disease" in Canada, and spruce budworm. The fungus called *Setomelanomma holmii* has been identified by mycologists and detected in 21 counties in Wisconsin. The fungus appears to be associated with a needle drop of spruce, which affects needles older than the current year. This needle drop syndrome has been commonly referred to as "SNEED." Spruce budworm (an insect) destroys the new needle growth affecting the needles at the tips of the tree branches. The resultant combination (inner crown death from disease and outer crown death from insect infestation) results in a relatively rapid decline and death of the spruce trees. For more information on white spruce plantation decline and mortality and its potential causes, see the May 1, 2004 issue of Lake States Forest Health Watch published by the USDA Forest Service, State and Private Forestry Branch, Northeastern Area, St. Paul, MN (<http://www.na.fs.fed.us/spfo/>).

Recent surveys indicate that over half of the spruce plantations on the Park Falls landbase of the Medford-Park Falls Ranger District are experiencing signs of decline and mortality. Further field studies indicate that some of the white spruce plantations have already declined to the point where mortality is heavy and remaining trees are continuing a rapid decline. A Proposed Action (scoping document) for salvage timber harvest that identified 3 areas (white spruce plantations) that are already experiencing heavy decline and mortality was sent out for public review and comment in June of 2004.

### THE DECISION

It is my decision to implement the proposed action as follows:

In the three project areas shown on the three attached project area maps, only spruce greater than 4.9 inches in diameter at chest height will be cut, and removed. In addition, the project area specified as 108 will be mechanically prepared and planted to red pine at about 700 trees per acre.

Connected actions associated with the salvage harvest are the construction and use of log landings and skid trails. Only existing roads and motorized trails will be used to access the salvage activity areas. No new permanent or temporary road construction will occur. Existing roads and trails that are currently closed with a berm or gate will be closed again following project activities.

The following table lists basic information for each of the 3 project areas.

PROJECT AREA	STAND	CURRENT FOREST TYPE	ACRES	AGE	PROPOSED ACTION	REGENERATION
53	053004	White Spruce	54	70	Salvage Harvest	aspen
53	053060	White Spruce	18	70	Salvage Harvest	aspen
108	108002	White Spruce	94	57	Salvage Harvest and Plant	red pine
143	143017	White Spruce	73	67	Salvage Harvest	hardwood
		Total:	239			

The following project design measures will be implemented with this proposal:

- a) Heritage resource surveys will be conducted prior to implementation and if any sites are discovered, they would be avoided.
- b) The location of landings and main skid trails will be approved by the Forest Service in all project areas. These will not be placed in areas infested with non-native, invasive plant species. There are no known populations of non-native, invasive plant species currently in the project areas.
- c) Wisconsin's Forestry BMPs (Best Management Practices) as described below will be used to maintain water quality and hydrologic wetland functions. Stand 053004 contains some wetland pockets and 143017 contains an unnamed drainage.
  - PROJECT AREA 143:
    - Skid trails and landings will be located a minimum of 35 feet from the ordinary high-water mark of the unnamed tributary in Project Area 143.
    - If present, leave 60 square feet of basal area in live trees (non-spruce) 5 inches in diameter at chest height (and larger) adjacent to the unnamed tributary in Project Area 143.
  - PROJECT AREAS 53, 108, AND 143:
    - Temporary roads, skid trails and landings will be established outside of wetlands. When temporary wetland crossings by roads and skid trails cannot be avoided, crossings will be approved by the Forest Service. Crossings may be made when wetlands are frozen. If they cannot be frozen, any fill or culverts needed to cross wetlands and maintain cross drainage will be removed following harvest activity and the area would be restored to prior conditions.
    - Logging and site preparation equipment will be kept out of wetlands.
    - Logging slash will not be moved into a wetland.
    - Logging slash will be kept out of open water.
- d) In all project areas, operate logging equipment only when soils are not saturated or when the ground is frozen.
- e) In stand 108002, minimize topsoil displacement into piles or windrows if machine piling slash and debris prior to planting.
- f) In stand 108002, the seedling source will be known and the seedlings planted will be produced from seed collected within the climatic zone of this area.
- g) In all project areas, leave and protect existing downed logs greater than 10 inches in diameter (small end diameter) consistent with providing for management access (e.g. skid trails).
- h) In all project areas, reserve dead snags and live den trees up to 10 trees/snags per acre, unless they present a safety concern. Emphasize the largest snags and den trees available. Those snags felled for safety reasons should be left on site as coarse woody debris wherever possible.
- i) In all project areas, reserve 2 to 5 live trees per acre greater than 11 inches in diameter, or select the largest trees available.
- j) In stands 053004, 053060, and 108002, additional areas will be reserved from cutting at the rate of ½ acre per 10 acres of cutting/salvage. Where there are clumps of live trees (non-spruce) within the stands, retaining those clumps is preferred. Where live trees are not present in clumps, dead and dying spruce will be utilized. Where possible, live clumps of trees should be left along FR 148 and FRs 131 and 136 in order to reduce visual impacts along these travelways.

- k) In all project areas, apply tree-marking paint on the sides of trees that face away from classified roads and trails. Classified roads and trails are shown on the attached project area maps.
- l) Along FR 148 and adjacent to private property, establish a 10-foot slash removal zone.
- m) In addition, the following slash disposal guidelines apply to FR 148, FR 131, FR 135, FR 136, and FT 118 for the visible area up to 100 or 150 feet as shown in the table below.

<b>SIO* Slash Height</b>		
<b>SIO</b>	<b>Slash Height Less Than or Equal To (inches)</b>	<b>Distance Applied (100 feet for motorized areas and 150 feet for non-motorized)</b>
High (FR 148)	24	100
Moderate (FR 131, 136)	24	150
Low (FR 135, FT 118)	36	100

\*SIO equals Scenic Integrity Objective (SIO). The higher the SIO, the less noticeable management activities should be.

- n) Along FR 148 and FRs 131 and 136 special care in logging operations will be needed to reduce impacts to advanced regeneration during logging operations. Regeneration will help provide a vegetation screen from travelways with high and moderate Scenic Integrity Objectives.
- o) Locate landings a minimum of 100 feet from FR 148, FR 131, and FR 136.
- p) Existing classified and unclassified, temporary roads will be used to access the project areas. Some of these access roads were used in previous thinnings within the past 10 years, and may need to be reopened. Once logging is completed, all temporary roads (non-classified) used for access to the project areas will be closed off again. Temporary roads are shown on the attached project area maps.
- q) In all project areas, temporary roads, skid trails, and landings will be seeded with a native seed mix following use.

## Reasons for the Decision

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The reason for these actions (salvage timber harvest and tree regeneration) is to meet the goals of the Chequamegon-Nicolet National Forest Land and Resource Management Plan, 2004 (Forest Plan or Plan):

Goal 1.4 Terrestrial Ecosystems - Provide terrestrial ecosystems in healthy, diverse, and productive conditions (Plan page 1-3).

Goal 2.5 Forest Commodities - Contribute toward satisfying demand for wood products (Plan page 1-8).

The need for this action is related to the mortality of white spruce plantations caused by disease and insect infestations and to satisfy the demand for wood products by salvaging the trees before insects, disease, and rot render them useless for utilization. Salvage harvest will also reduce fuel loads in the area, somewhat reduce the potential for the SNEEDs fungus to spread to uninfected areas, and restore healthy, regenerating forest to the sites. Two of the project areas have natural regeneration that is well established. The third area does not. For this reason, it is being proposed for tree planting following salvage harvest.

## Reasons for Categorically Excluding this Action

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Upon review of the proposal I have determined that no extraordinary circumstances, as defined in section 30.3 of the Forest Service Handbook 1909.15, Environmental Policy and Procedures Handbook, would be adversely affected by these activities. Based upon experience with similar types of projects, these projects are considered minor in context and intensity. This action is categorically excluded from documentation in an environment assessment or environmental impact statement because:

1) This type of action falls under Section 31.2 (13) and 31.2 (5)-Categories of Actions for Which a Project or Case File and Decision Memo Are Required, of the Forest Service Handbook 1909.15. Category 13 includes: "Salvage of dead and/or dying trees not to exceed 250 acres, requiring no more than ½ mile of temporary road construction." Proposals in this category may include incidental removal of live or dead trees for landings, skid trails and road clearing. Category 5 includes: "Regeneration of an area to native tree species." Proposals in this category include site preparation and planting or seeding.

2) Based on my review of the project file, I find this action to be routine and no extraordinary circumstances exist that might cause this action to have adverse effects to the environment.

- Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species will not be adversely affected by this action. Biological evaluation information indicates that there would be no impact to any species provided that reserve tree guidelines are implemented. These guidelines would maintain the area as potential habitat for black-backed woodpecker, a Regional Forester Sensitive Species. See the Biological Evaluation for the Alpha Spruce Dieback Project.
- Flood plains, wetlands, or municipal watersheds would not be adversely affected by the salvage activity. There are no municipal watersheds on the Medford-Park Falls District. Streams and wetlands in the project area are protected by BMPs (Forest Plan and project design measures c, d, and e).
- This action does not take place in congressionally designated areas such as Wilderness, Wilderness Study Areas, or National Recreation Areas (Forest Plan).
- There are no Inventoried Roadless Areas near the activity areas (Forest Plan and and Forest Service Roadless Area Conservation Rule-Final Environmental Impact Statement).
- There are no Research Natural Areas or proposed areas near the projects (Forest Plan).
- Archaeological sites or historic properties will not be affected by these actions. The area will have completed surveys for heritage resources prior to implementation and any discovered sites would be avoided (project design measure a).

## Compliance with Other Laws and Regulations

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### **FOREST PLAN CONSISTENCY (NATIONAL FOREST MANAGEMENT ACT)**

This project has been designed in conjunction with the guidelines in this act as well as with direction in the Chequamegon-Nicolet National Forest Land and Resource Management Plan, 2004 (Forest Plan) which was prepared under NFMA regulations.

These actions are consistent with the Forest Plan forest-wide standards and guidelines for salvage harvest (see Reasons for The Decision section of this document). Project design measures were

incorporated into the salvage activity from the Forest Plan standards and guidelines (see The Decision section of this document). These measures are consistent with the resource protection requirements in the National Forest Management Act, 36 CFR 219.27(a), including, the protection of streams, banks, shorelines, lakes, wetlands, and other bodies of water.

These actions are also consistent with management area direction in the Forest Plan. Most of the project area falls within management area (MA) prescriptions that would be considered intensively managed (1A and 4A). Simply structured early successional forests (primarily aspen) characterize MA 1A. Coniferous, mixed coniferous-hardwood and aspen forests dominate MA 4A. Natural and plantation conifer stands are most prevalent, but both hardwood and aspen are well represented in this landscape.

The salvage treatments result in harvest on lands suitable for timber production pursuant to 36 CFR 219.27 (c) (1). All project areas have been inventoried and identified as suited for timber production. All sites to be salvaged have been inventoried on the ground.

The technology and knowledge exists to adequately restock stands selected for a regeneration treatment pursuant to 36 CFR 219.27 (c) (3). Where natural regeneration is expected to be lacking, planting has been prescribed.

#### **CLEAN AIR ACT**

There are no Class I airsheds within or adjacent to the project area. There are no prescribed burning projects associated with this decision that would have the potential to impact air quality.

#### **CLEAN WATER ACT, AS AMENDED 1977**

The Federal Water Pollution Control Act of 1972, as amended, is commonly referred to as the Clean Water Act. Section 319 for the 1977 amendments requires each state to develop and implement a program to control silviculture-related and other non-point sources of water pollution. To this end, Wisconsin developed Forestry Best Management Practices (BMPs) for Water Quality in 1995 (WDNR 1995). Project design measures meet BMPs.

Under Section 404, the U.S. Army Corps of Engineers has been given responsibility to regulate the discharge of dredged and fill material into waters of the United States, including wetlands (33 CFR 323.3). Normal silvicultural activities, including harvesting for the production of forest products or upland soil and water conservation practices, are exempt from Section 404 permits (33 CFR 323.4). Construction and maintenance of forest roads for normal silviculture are also exempt provided best management practices are applied (33 CFR 323.4; Wisconsin's Forestry Best Management Practices for Water Quality). Project design measures for water quality that meet BMPs were incorporated into all projects.

#### **ENDANGERED SPECIES ACT (ESA) OF 1973, AS AMENDED 1978, 1979, 1982, AND 1988 (16 U.S.C. 1531)**

This Act provides direction to the Forest Service to establish objectives for habitat management and recovery through the Forest Plan for the conservation and protection of endangered and threatened species. This project is consistent with these guidelines. The project area has been reviewed to identify, manage, and protect essential and critical habitats to meet legal requirements and recovery objectives for Federally listed species. There is no critical habitat present in the project area. An analysis of effects on listed species has been conducted and documented in a Biological Evaluation.

**NATIONAL HISTORIC PRESERVATION ACT (16 U.S.C. 470)**

This Act provides direction for Federal agencies to establish a program for preservation of historic properties. In compliance with this act, potential impacts to sites eligible for the National Register of Historic Places were considered in this analysis. There are no known sites currently within the project area.

**WILD AND SCENIC RIVERS ACT**

A portion of Project Area 53 falls in Management Area 8D. MA 8D is characterized by free-flowing rivers and associated corridors in a natural condition identified for special management on a federal or state level. In this case the South Fork Flambeau River is eligible for designation under the Wild and Scenic Rivers Act. The segment of river adjacent to Project Area 53 is eligible for scenic designation. Activities in 8D areas are conducted to protect and enhance the values of candidate national wild, scenic, and recreational rivers that are eligible for designation or have been identified for study by Congress. In determining acceptable activities, the area visible from the river is an important management consideration. Stand 053060 in Project Area 53 is within the river corridor, but is not adjacent to or visible from the river. Salvage of the dead spruce will allow a healthy regenerating forest to become established and this will improve the visual character of the area.

**WILDERNESS ACT**

There is no designated or proposed Wilderness within the project area. There are no Roadless Areas or proposed Roadless Inventory Areas within the project area.

**Scoping and Public Involvement**

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On June 15, 2004, public comments were requested through letters sent to 66 individuals, tribes, organizations, municipalities, and agencies known to be interested in or affected by the proposed action. Four responses were received. One of these was a request to remove their name from the mailing list for this project. The remaining three comments were generally supportive of the proposal, but each of the 3 comments identified some general and specific concerns about forest management activities.

One commenter expressed a concern that private property be treated with respect. All property boundaries adjacent to the salvage activities approved in this decision have been established by licensed surveyors and are used for locating harvest area boundaries. Also, any slash or logging debris that falls on private property would be promptly removed (see project design measure l).

The other comments received were related to the type of regeneration that would be established in the project areas. More specifically, one commenter wanted to see aspen regeneration encouraged in Project Area 143. This project area falls within Forest Plan Management Area (MA)1A. Simply structured early successional forests (primarily aspen) characterize MA 1A. By salvage harvesting the white spruce in Project Area 143, existing regeneration would be released to occupy the site. While the existing understory in this area is primarily mixed hardwood, post salvage conditions would also be suitable for seeding in of aspen from adjacent areas.

Another concern was that project design measures h, I, and j would interfere with the establishment of aspen regeneration by leaving trees that would shade the regeneration out. This would be unlikely. The areas being treated are plantations consisting mostly of dead and dying spruce. Many of the trees that

would remain following salvage harvest would have little or no crown. With this in mind it is unlikely that regeneration of aspen would be suppressed.

Another commenter did not want to see Project Area 108 planted to a red pine monoculture. Project Area 108 falls within Forest Plan MA 4A which allows for the establishment of conifer stands such as red pine.

## **Implementation**

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This decision is not administratively appealable [36 CFR 215.12(f), June 4, 2003], nor is it subject to a 30 day notice and comment period.

Project implementation may begin immediately.

/s/ Bob Hennes

**BOB HENNES**

District Ranger

Medford-Park Falls Ranger District

August 3, 2004

**DATE**