# **01 DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY**

**669 BUREAU OF FORESTRY**

**Chapter 4: RULES FOR SILVICULTURAL TREATMENT DESIGNATION AND NEW MARKET WITHDRAWAL**

**Summary**: This chapter establishes the criteria and procedures for designation of an area as a silvicultural treatment area, including a description of acceptable silvicultural practices designed to lessen the vulnerability of the area to future budworm infestation. This chapter also outlines the procedure for removal of land parcels from a proposed spray area based on the presentation of an economically sound plan for salvage and sale of harvested wood to a new market.

**1. Statutory Authority**

These rules are enacted pursuant to 12 MRSA §§ 1021 and 1023.

**2. Purpose of the Rules**

A. Silvicultural treatment can be an important part of an integrated spruce budworm control program. The *Budworm Suppression Act* recognizes the desirability of managing the forest in a way designed to minimize susceptibility and vulnerability to future infestations. If land is being managed in this way, it may be granted a silvicultural treatment designation.

B. The new market withdrawal is to encourage an economical program of salvage and sanitation cutting in budworm damaged stands, a part of a broad forest management program.

**3. Definitions**

A. **Applicability of Definitions**. All terms used in these rules shall have the same meaning as set forth in 12 MRSA §1012 unless otherwise expressly provided herein:

B. **Gross merchantable volume**. Volume in trees with dbh greater than 5", measured to a 4" top, without any deduction made for cull.

C. **Net merchantable volume**. Gross merchantable volume less deductions for cull.

D. **Commercial species**

The following native trees are defined as commercial species:

|  |  |  |
| --- | --- | --- |
| All Pines  All spruces  American Larch (Tamarack)  Hemlock  Northern white Cedar  Balsam Fir  All Ashes  Trembling Aspen | Soft Maple  Sugar Maple  Basswood  Beech  Paper Birch  Yellow Birch  Black Cherry  American Elm | Large-Toothed Poplar  All Oaks except Scrub Oak  Gray Birch |

Exotic tree species shall be considered commercial species if they attain a size and quality suitable for pulpwood or sawtimber when grown in Maine.

E. **Fir mixed with host species**. Fir is defined to be mixed with host species if it is in a type composed of more than 75% fir, spruce, and hemlock species, by gross merchantable volume.

F. **Fir mixed with nonhost species**. Fir is defined to be mixed with nonhost species if it is in a type composed of more than 25% commercial species other than spruce, fir, and hemlock, by gross merchantable volume. All stands which would be classified as "mixed wood" for purposes of the Tree Growth Tax Law fall into this category.

G. **Renewal cutting**. Any harvesting operation in even-aged types older than 25 years which leaves a residual stocking of less than 5 cords/acre gross merchantable volume.

H. **New market**. A new market is a market meeting one of the following conditions:

1. An existing processing facility which used no spruce or fir originating from Maine other than sawlogs prior to January 1, 1976;

2. A processing facility using spruce or fir other than sawlogs which has been made operational for the first time after January 1, 1976; or

3. A net physical expansion of an existing facility. Net expansion is defined as the volume of spruce and fir other than sawlogs used by an expanded wood processing plant less the average annual volume of spruce and fir other than sawlogs used by that plant during the calendar years 1973-1975.

I. **Stands suitable for salvage cutting**. A stand is suitable for salvage cutting if at least 50% of the gross merchantable volume consists of trees which are dead or dying from budworm damage.

**4. The Silvicultural Treatment Designation**

A. **Scope and Purpose**. The Regulations in Parts 3 and 4 hereof implement 12 MRSA §1018. They define silvicultural practices which are considered to minimize susceptibility and vulnerability to future budworm infestations. These standards are based on the best current knowledge about the budworm's behavior, and may be revised as more knowledge accumulates.

B. **The silvicultural plan**. A silvicultural plan shall be submitted with each application for silvicultural treatment designation, containing a forest type map, a general long-term silvicultural strategy, and a specific plan to operations through the calendar year 1981, for the parcels in question. The plan must be submitted by a professional forester, registered in Maine under 32 MRSA §§ 5001-5019.

C. **Elements of the silvicultural plan**

1. **The forest type map**. The forest type map shall be drawn to scale, and shall indicate forest types of more than 10 acres classified according to species composition, age or height of trees, and stocking or crown density levels. Areas of less than 10 acres need not be identified as distinct forest types. The type map shall be updated, and shall be based on cruise data no more than 10 years old. In the event the Director finds such maps to be unreasonably inaccurate with respect to the actual composition, age or height, and stocking levels, then he may require the applicant to prepare new maps which he deems accurate.

2. **The long-term silvicultural strategy**. A description of long-term silvicultural strategy shall be submitted for the parcels of land under consideration, indicating in general terms how the species composition performance goal will be met. The long-term strategy shall state whether timber types are to be managed on an even-aged or multiple-aged basis, and shall describe the general management approach to be employed. If the stands currently meet the performance goals as set up by these rules, a statement shall be included stating how the goals will be maintained. As a part of this long-term strategy a table shall be included which shows the current percentage of fir by stand type and what percentage will be achieved by 1981. Also this table shall show the average age of the trees in the stands. Specific dates of planned operations need not be given in the long-term strategy.

3. **The operating plan**. An operating plan shall be submitted describing specific silvicultural operations, such as plantings, thinnings, final harvesting, etc., to be undertaken in the years through 1981, and indicating the areas in which these operations are to be performed. These operations shall be supportive of the general long-term silvicultural strategy.

4. **Modifications**. The silvicultural plan may be modified when acts of God, such as insect damage, fire, windstorms, etc., make such modifications desirable or necessary. In this event, the applicant may submit a new silvicultural plan to the Director, Bureau of Forestry, with an explanation of why modification of the original plan has been made desirable or necessary. Approval or denial of the modified plan shall be on the same basis as that applying to new plans.

5. **Sale of Property**. Upon sale or other disposal of the property, the Director, Bureau of Forestry shall be notified.

D. **The species composition performance goal**. The fir content in each forest type (as defined in Part 4C, expressed as a percent of total gross merchantable volume, shall be reduced according to the following specifications, and the reduction shall be accomplished within 30 years:

1. **Fir mixed with host species**

a. If a forest type, classified as fir mixed with host species as defined in 3E, presently comprises more than 40% fir, the gross merchantable volume of fir in that forest type shall be reduced to a percent of the total gross merchantable volume in the forest type, which is 20 percentage points below the original percentage. (Example: If the forest type now comprises 75% fir, the fir content shall be reduced to 55% of the total forest type volume).

b. If the timber type presently comprises 40% or less fir, the fir content shall be reduced to 20% of the total timber type volume.

c. If the forest type presently comprises 20% or less fir, no further reduction in fir content is necessary; plans shall attempt to show how the percentage of fir will be maintained at or below this goal.

2. **Fir mixed with nonhost species**. These stands will be considered eligible if the plan shows that these stands will not develop into a heavy (in excess of 5O% of the total gross merchantable volume) fir stocking within 20 years. If it is possible for a heavy fir stand to develop the plan shall show how this will be corrected to meet the goal.

E. **Acceptable Silvicultural Operations**

1. **Even-aged management**

a. Any type of renewal cutting in an even-aged management system is acceptable provided that the following regeneration standard is met:

Within 3 years after completion of the renewal cutting, at least 40% of randomly located milacre plots shall contain at least one seedling or sapling of a commercial species other than fir. To be counted, hardwood seedlings shall be at least 1' tall, and softwood seedlings shall be at least 6" tall, and saplings shall have a maximum dbh of 4.5". Seedlings and saplings shall be thrifty and capable of responding to release.

b. Any type of thinning in an even-aged management system is acceptable provided that the method to be employed is identified in the application and is part of the long-term silvicultural strategy designed to meet the species composition performance goal.

2. **Type conversion through artificial regeneration**

a. Conversion from a softwood to a hardwood forest type will not qualify the area for silvicultural treatment designation. However, it may lead to reclassification of the area under the *Tree Growth Tax Law*, and hence exemption from the budworm excise tax.

b. Conversion from a spruce-fir type to conifers other than fir is acceptable provided that the type conversion meets the regeneration standard of Part 4E (1) and is part of a long-term strategy designed to meet the performance goal. The long-term strategy shall provide for control of volunteer fir regeneration if necessary.

3. **Multiple-aged management**

Any long-term silvicultural plan designed to create or perpetuate forest types with more than one age class is considered a multiple-aged management system. A cutting operation in a multiple-aged system will be acceptable provided that:

a. It attempts to eliminate all live fir with dbh 7" or greater;

b. It leaves a residual stocking of at least 5 cords/acre in trees of commercial species. If the residual stocking is less than this, the operation shall be considered an even-aged renewal cutting, and the regeneration standard shall be applied;

c. The cutting interval for multiple-aged management shall be no more than 25 years, inclusive of the year in which the operation is commenced.

F. **Approval**

Designation as a silvicultural treatment area shall only be granted under the following circumstances:

An application for silvicultural treatment designation is made, including a forest type map and long-term silvicultural plan as required by Regulations 4C (1) and 4C (2); and either

1. the forest types already have fir contents meeting the requirements of the species composition performance goal, and the long-term silvicultural plan provides for maintaining the fir content at or below the required levels; or

2. an operating plan is submitted providing for acceptable silvicultural operations to be carried out on the area by 1981.

Silvicultural treatment designation shall not be granted for a forest type which does not presently meet the species composition performance goal if not acceptable silvicultural operations will be carried out in the type before 1981.

G. **Amendments**

1. **Application**. An applicant for silvicultural treatment designation may request that an amendment to the regulations be made to allow practices which do not meet the requirements or regulations 4E (1) ‑ (3). The request for an amendment shall be made in writing to the Director, Bureau of Forestry, and shall contain:

a. A timber type map, long-term silvicultural plan, and operating plan as provided for in Regulations 4C (1)-(3).

b. Documentation showing that the operations contained in the operating plan, which do not conform to Regulations 4E (1)-(3), will lead to fulfillment of the species composition performance goal.

2. **Amendment**

The Director of the Bureau of Forestry may amend the rules for silvicultural treatment designation, with the approval of the Spruce-Fir Silviculture Committee, as provided for in 12 MRSA, Sections 1021-1023,

**5. The New Market Withdrawal**

A. **Scope and Purpose**. The Regulations in part 5 hereof implement 12 MRSA 1019. They are designed to encourage an economical program of salvage of budworm-damaged timber, and the expansion of existing markets for such timber.

B. **Certification of New Markets**

1. **Application for Certification**. Firms desiring certification as new markets shall certify to the Director of the Bureau of Forestry, on a form supplied by the Bureau of Forestry, their ownership of or control over processing facilities qualifying as a new market.

2. **Consent**. Applications made for new market certification shall be granted or denied according to 12 MRSA 1019(2) by the Director of the Bureau of Forestry.

3. **Publication of New Markets**. The Bureau of Forestry shall publish, and shall from time to time revise, a list of new markets which have been certified by the Bureau.

C. **Application for New Market Withdrawals**

1. **Minimum Area**. To qualify for a new market withdrawal, at least 50% of a contiguous area of at least 1,000 acres shall consist of forest types suitable for salvage cutting.

2. **Silvicultural Treatment Designation**. An area must be eligible for a silvicultural treatment designation in order to be considered for a new market withdrawal.

3. **Harvesting Plan**. Each application for new market withdrawal shall be accompanied by a harvesting plan, submitted by a professional forester registered in Maine, containing:

a. A map identifying areas to be harvested;

b. A map identifying stands suitable for salvage cutting;

c. An operating schedule for the planned timber harvest. The harvesting operation must begin during or before the calendar year following the calendar year of application, and it must be completed by April 1, 1981.

4. **Timber Removals**. More than 90% of the net merchantable volume in dead and dying spruce and fir trees with dbh of at least 7" shall be removed in the salvage cutting. The volume of spruce and fir other than sawlogs which is removed shall be sold and delivered to a new market. All portions of the harvested dead and dying trees, which fulfill the size and quality standards for budworm-damaged wood of the new market to which such volume is delivered, shall be removed.

5. **Certification of Sale to a New Market**. Within 6 months of completion of the harvesting operation, the applicant shall certify to the Director of the Bureau of Forestry, on a form provided by the Bureau of Forestry, that:

a. The area has been harvested according to the harvesting plan and Regulation 5;

b. The volume of spruce and fir harvested other than sawlogs was sold to a new market.

The form shall be signed by the purchaser of the volume of spruce and fir harvested other than sawlogs, certifying the purchase of that volume, and by a professional forester, registered in the State of Maine, certifying that the harvesting plan has been carried out as approved by the Director.

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