

General Bulletin

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Management of Dothistroma Infected Lodgepole Pine Plantations in the ICH and CWH subzones In the Northern Interior Forest Region (NIFR)

The purpose of this bulletin is to clarify the policy background, obligations and funding options associated with plantations severely damaged by Dothistroma needle blight. The applicable policies, funding regimes and legal obligations vary depending on the timeframes as outlined in the table below.

	Date of harvest and damaging event	Status of obligation after damaging event	Funding Responsibility for Damaged Plantation
1.	Harvesting by a holder of a major licence commenced before October 1, 1987 ¹ .	No legal obligation.	Classified as discretionary silviculture. Reforestation activities are eligible for FIA Land Base Investment Program (LBIP) funding.
2.	Harvesting by a holder of a major licence commenced after October 1, 1987 and plantation has been declared free growing.	No legal obligation.	Classified as discretionary silviculture. Reforestation activities are eligible for FIA Land Base Investment Program (LBIP) funding.
3.	Harvesting by a holder of a major licence commenced after October 1, 1987 and plantation with free growing obligation was severely damaged before December 17, 2002.	Remains a legal obligation.	Holder of a silviculture obligation remains legally obligated to establish a free growing stand at their expense.
4.	Harvesting by a holder of a major licence commenced after October 1, 1987 and plantation with free growing obligation is severely damaged on or after December 17, 2002.	Remains a legal obligation unless the DM determines that the licensee is eligible for partial or full relief from the obligation. (FPC Act s 162.2(2))	Three different outcomes are possible under this category. (i) Subject to the conditions of FPC Act s 162.2(2) the obligation holder may be eligible for funding to cover the additional expense of establishing a free growing stand that is attributable to the damaging event. (ii) If instead of approving funding the DM grants relief from the FG obligation then reforestation activities become eligible for FIA LBIP funding as discretionary silviculture. (iii) If the DM does not find the obligation holder eligible under FPC s162.2 then the holder of the obligation remains legally obligated to establish a free growing stand at their own expense.

¹ For BCTS (SBFEP) blocks the effective date is January 1, 1988.

Harvesting commenced either: (i) before October 1, 1987, or (ii) after October 1, 1987 and plantation has been declared free growing.

Plantations in these two categories that are damaged by *Dothistroma* to the point of becoming not satisfactorily restocked (NSR) are classified as *discretionary silviculture*. Reforestation of these plantations is eligible for FIA LBIP funding. In fiscal year 2003/2004, a FIA top-up of \$700,000 was provided to New Skeena Forest Products (NSFP) to initiate reforestation of approximately 400 hectares of the highest priority sites in this category. Eligible activities under this funding include aerial and ground surveys, sowing, site preparation, planting, and brushing. Activities are to be conducted according to FIA standards and additionally for the NSFP top-up, per the Memorandum of Agreement signed between NSFP and the MoF.

Harvesting commenced after October 1, 1987 and the plantation has not been declared free growing.

Free Growing Damage Criteria for *Dothistroma*

The free growing requirement is to produce "a stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs or other trees". "Healthy" is not defined by legislation. To assist the DM, guidance for assessing the health of a tree is provided in the forest health damage criteria. A healthy tree will generally be determined in light of current knowledge that exists at the date the requirement must be met. To assist the administrative decision-making process, a healthy tree is defined by the forest health damage criteria. The most recent forest health damage criteria pertaining to *Dothistroma* are summarized below.

(i) *Free growing declaration submitted before October 1, 2003*

Free growing declarations that have been submitted to the District Manager up to the release date of this bulletin would be based on the existing forest health free growing damage criteria for defoliators. Under these guidelines the tree being assessed is unacceptable if greater than 80% of the tree foliage has been removed due to defoliating insects or foliage disease.

(ii) *Free growing declaration submitted after October 1, 2003*

The 80% threshold for defoliation was based on the assumption of cyclical rather than persistent forest health agents. The *Dothistroma* outbreak is currently exhibiting a persistent pattern of defoliation, indicating that 80% defoliation is too high a threshold to define a healthy tree under these conditions. The revised free growing damage criteria for *Dothistroma* in the ICH and CWH is now set at 50% defoliation. Based on the current observations of *Dothistroma* dynamics, a defoliation level of 50% represents a realistic threshold at which there is a reasonable likelihood that the stand will not remain in a free growing condition. It is recommended that this guideline be applied to all free growing declarations submitted to the District Manager after the release date of this bulletin.²

² The damage criteria are intended to provide the DM with general guidelines based on current knowledge. The DM may allow or require deviations from these criteria in situations where the recommendations are not adequate to determine the health of a tree. The DM must also consider information provided by the license holder, either historic or current, that might have a bearing on the applicability of these criteria.

Free growing declarations submitted after October 1, 2003 based on surveys completed before this date need not be redone or revised to the new damage standard. It is the combination of a free growing declaration submitted after October 1, 2003 based on a survey completed after that date that must be in accordance with the revised damage criteria. However, licensees who have submitted a free growing declaration prior to October 1, 2003, that have not been reviewed by the district manager have the option of requesting withdrawal of the declaration for reassessment in the context of the revised damage criteria. For additional information on the new threshold see the section titled *Guidelines for Proposed Course of Action - FPC Act s162.(2) Applications* on page 7.

Determining the Date of the Damaging Event

For the purpose of *Forest Practices Code Act* section 162.2(2), the date of the damaging event will be defined for Dothistroma damage as the date when an area larger than minimum stratum size has dropped below the minimum stocking level of preferred /acceptable, well spaced healthy trees.

Classifying Stands According to the Date of the Damaging Event – before or after December 17, 2002

In August 2002, all of the lodgepole pine leading stands (>50% PI in the silviculture label) in the Kispiox and Cranberry TSAs were assessed for Dothistroma, using low level aerial surveys. The Nass TSA (excluding Nisga lands and TFL1) openings were completed just before December 17th, although there were openings that were missed that will be evaluated in 2003 and categorized as to the likely date of the damaging event. This is the most comprehensive data as to the status of these stands prior to December 17th 2002. The extent of damage within openings, the % live Crown, % defoliation, % mortality, number of disease free internodes, and an estimate of alternate species stocking (<300 stems, 400-800, >800 stem/ha) was recorded. Those stands in which no lodgepole pine tree had greater than 50% live crown based on the aerial assessment, would not pass free growing using the free growing damage acceptability criteria of less than 80% defoliation, if there were not sufficient stocking of alternate conifer species. Therefore those openings that were identified with the combination of less than 800 stems per hectare of alternate conifer species, and with no lodgepole pine having a live crown greater than 50 %, were likely damaged to the point of being NSR before December 17th 2002.

These stands may not be eligible for approval under *FPC Act* section 162.2(2) and would thus remain the obligation of the SP holder. The aerial survey criteria are very conservative. Based on the criteria, there is a higher likelihood of misclassification of stands as acceptable rather than unacceptable, even though they may have been damaged to the point of being NSR before December 17th, 2002. Considering the *Forest Practices Code Act* section 70 (4)(d) requirement to maintain stocking, there is an onus on licensees to assess, as soon as possible, the areas that were identified through the aerial surveys as likely being NSR before December 17th, 2002. Also licensees can use ground survey data, which may be a walk through, to advise the district of any discrepancies with the aerial survey data.

Harvesting commenced after October 1, 1987 and a plantation with a free growing obligation was destroyed before December 17, 2002.

Free Growing Obligation

The holder of a silviculture prescription is required to establish a free growing stand in accordance with the *Forest Practices Code Act*, regulations, and silviculture prescription at their expense. This obligation continues until a free growing stand is achieved regardless of the impact of any damaging events that occurred before December 17, 2002. The legal framework that was established during this period creates an absolute obligation (e.g. the fact that earlier Ministry of Forests policy promoted the planting of lodgepole pine in the ICH is not a factor the DM can consider).

Section 162.2 (6) of the *Forest Practices Code Act* states that the provisions as to when government may fund the significant extra expenses or waive the free growing obligation following a damaging event cannot be applied retroactively to damaging events that occurred before December 17, 2002. It should be noted that the use of the term “may” in *Forest Practices Code Act* section 162.2 (6) does not provide discretion to the DM to consider damaging events that occurred before December 17, 2002.

Due Diligence

The provisions of due diligence introduced by Bill 75 on December 17, 2002 are available to the holder of the prescription as a defence of any enforcement action related to failure to achieve a silviculture obligation. However if the holder of the prescription knows, or ought reasonably to know, before the date the free growing stand is to be established, that the requirements of the prescription cannot be met then sections 35 and 36 of the *Forest Practices Code Act* apply.

Application of Forest Practices Code Act sections 35 and 36

Once it is determined that *Dothistroma* has shifted an area larger than minimum stratum size to a not satisfactorily restocked condition then the provisions of *Forest Practices Code Acts* 35 or 36 will generally apply. These sections obligate the holder of a free growing obligation under a silviculture prescription to submit a report, and usually also an amendment that sets out how the free growing obligation will still be met. Enforcement action can be taken if the holder fails to comply with those sections.

Neither section 35 nor 36 specify when the amendment or report needs to be submitted. The legislation does not specify a modifier like promptly or timely or as soon as practical, so there is some leeway allowed. Accordingly, the amendment will have to be done within a time period that is reasonable considering case-specific circumstances.

For example, serious time sensitive issues should be dealt with promptly.

In determining if the holder of an SP was aware that the results specified in the SP were impossible to achieve or unlikely to be attained, it is important to determine how this information could have been identified in the field. The aerial surveys are a first filter in identifying problem areas. However licensees must still monitor their blocks and the intensity of this monitoring should be increased in blocks with lodgepole pine as a leading species. If there is any doubt as to what is a reasonable level of monitoring, the plan holder should be given the benefit of the doubt.

Silviculture Prescription Amendment Considerations

The SDM may only approve silviculture prescription amendments if satisfied that the amendment is consistent with the *Forest Practices Code Act* and regulations, and will adequately manage and conserve the forest resources of the area to which it applies. On a case specific basis there are a number of different options that may satisfy this test including the following:

1. Extended free growing timeframes
2. Reduced stocking standards created as for example by:
 - Fill planting in clusters;
 - Individual conifer tree release of a reduced number of conifer stems per hectare;either of which could be designed to produce a reasonable future conifer volume in a mixedwood crop.
3. Broadleaf or mixedwood management where the broadleaf species are:
 - ecologically acceptable;
 - indicated in the Establishment to Free Growing Guidebook species selection tables as on a site series where the species is suitable for timber production;
 - adequate stocking to ensure good stem form for future sawlogs;
 - stems required to ensure stocking are not of coppice origin due to concerns with stem stability or pathogens;
 - consistent with a broadleaf / mixedwood strategy.

Amendments to advance the timing of the earliest free growing assessment date need to be evaluated carefully. It is recommended that approval be contingent on consideration of the time required for adequate assessment of the impacts of *Dothistroma*.

Replacement of Silviculture Prescription with a Site Plan

Revisions to section 35 and 36 introduced under Bill 75 provide the option of replacing a silviculture prescription with a site plan when it is not practicable to amend the prescription. The term “not practicable” is not defined, but the intent was that this would apply to situations where the conditions on the ground have changed significantly from the original post harvest condition. For example, a significant portion of the block is now impacted by a slide or flooding from a large beaver dam or the area was partial cut, but a windstorm or fire has had a major impact on the residual stems. This provision will generally not apply to areas impacted by *Dothistroma* unless there are other changes that have occurred such as described above.

Harvesting commenced after October 1, 1987 and a plantation with a free growing obligation was destroyed on or after December 17, 2002

Free Growing Obligation

The holder of a silviculture prescription or a person who harvested an area under a site plan is required to establish a free growing stand in accordance with the *Forest Practices Code Act*, regulations, and silviculture prescription if applicable. The free growing obligation continues until a free growing stand is achieved, unless the obligation is waived as a result of a damaging event that occurred after December 17, 2002.

When Government May Fund Significant Extra Expense or Waive Obligation

The provisions introduced by *Forest Practices Code Act* section 162.2(2) enable obligation holders to apply to the DM for funding or release from the free growing obligation where the damaging event occurred on or after December 17, 2002.

Under *Forest Practices Code Act* section 162.2(2) the district manager must either grant relief from the free growing obligation or funding to the obligation holder if:

- (i) because of damage caused by *Dothistroma*, the obligation to establish the free growing stand cannot be met without significant extra expense than would have been the case if the damage had not occurred; and
- (ii) the holder of the obligation:
 - did not cause or contribute to the cause of damage;
 - exercised due diligence in relation to the cause of the damage;
 - contributed to the cause of the damage but only as a result of an officially induced error.

If the DM opts to relieve the obligation, it is relief to the extent only that the obligation cannot be met without significant extra expense related to the damage, or else the obligation in full if the district manager considers that the remaining obligation is inconsequential.

If the DM approves funding it is funding to the extent only that is required for the purpose of restoring the stand of trees on the area affected by the event to the stage the stand had reached at the time of the damage caused by the event. Funding will be provided from a funding envelope that is specifically set up for expenditures authorized under *Forest Practices Code* section 162.2(2).

Applying for Relief under FPC Act s162.2(2)

Section 50 of the *Timber Harvesting and Silviculture Practices Regulation* sets out the steps an obligation holder must follow to claim the relief or funding under section 162.2(2). The district manager must be provided with the following information:

- (a) the nature of the relief sought and why the person is entitled to it;
 - (b) if the relief sought is funding, a proposal for the course of action and time frame for returning the stand to its condition at the point before the damaging event; and
 - (c) an estimate of the extra expense involved in carrying out the course of action.
- If the district manager is satisfied that the relief of an obligation or funding is required, then within 1 year of receiving all the information the district manager must grant the relief or provide the funds. However, if the district manager determines that the obligation to establish a free growing stand should continue, and either:
- (i) the person has not provided a proposed course of action, or
 - (ii) the proposed course of action is unacceptable, then the district manager must provide and fund an alternate course of action.

This alternate course of action may include direction to alter the stocking standards. If either the timeframes of the silviculture prescription or the stocking standards in the Forest Development Plan for areas under a site plan cannot be met as a result of the damaging event, then an amendment for a revised timeframe must also be submitted to the district manager.

Guidelines for Proposed Course of Action - FPC Act s162.2(2) Applications

The revised free growing damage criteria for Dothistroma in the ICH and CWH is now set at 50% defoliation as there is a reasonable likelihood that stands with this level of infection will continue to progressively deteriorate. However, if a climatic event or some other controlling factor causes the Dothistroma population to collapse then there is a reasonable likelihood that stands with defoliation levels between 50 to 80% would recover. For this reason, the following recommendations are provided as the proposed course of action for stands with defoliation levels between 50 to 80 %.

Treatment should be deferred until completion of a survey in 3 years unless annual monitoring determines that the stand has deteriorated to 80% or greater defoliation at which point treatment would commence. If after 3 years the stand is still at less than 80% defoliation, a final decision is made to either initiate the treatment regime or relieve the obligation. The proposed course of action should outline the individual activities under the treatment regime that would be implemented and the estimated cost.

Harvesting commenced after October 1, 1987 –Pli leading species plantation established after 2003 with free growing obligation destroyed

It is considered that by year-end of 2002, it was widely known that Dothistroma poses a serious risk to lodgepole pine establishment in the ICH. Assessment of due diligence is based on the tests of “reasonable foreseeability” and “reasonable care”. At this time, it is obviously risky to rely on Pli to meet free growing obligations in the ICH . On the basis of all currently known information, continued planting of Pli is unlikely to satisfy the tests of due diligence. In addition to not being able to apply due diligence as a defense against free growing contravention’s the obligation holder would then also not be eligible for relief of the obligation or to receive funding under s 162.2(2). The regional pathologist strongly recommends that planting of lodgepole pine be substantially curtailed.

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