

# **Forest Planning and Practices Regulation Amendments to Protect Secondary Structure**



**Ministry of Forests  
July 2008**



# **Executive Direction to Protect Secondary Structure**

- After field trips and presentations by Dr. Dave Coates the MOF executive determined that MPB killed stands with an abundance of healthy surviving trees (secondary structure) should be protected to mitigate mid term timber supply reductions due to MPB.
- The Forest Planning and Practices Regulation has been amended to include provisions to protect secondary structure.

# **Information on Regulation Amendments to Protect Secondary Structure**

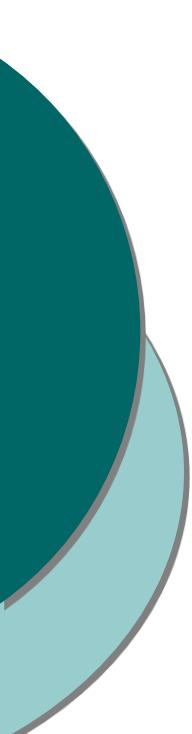
**A copy of the FPPR amendments to protect secondary structure and documents explaining these amendments may be obtained from the Forest Practices Branch – Silviculture Surveys website at:**

**[http://www.for.gov.bc.ca/hfp/silviculture/Silviculture\\_Surveys.html](http://www.for.gov.bc.ca/hfp/silviculture/Silviculture_Surveys.html)**



# **Rationale for Protecting Secondary Structure**

- A 1994 report by Malcolm Shrimpton PhD. indicates secondary structure in the form of spruce understory trees had 200 m<sup>3</sup>/ha of merchantable volume 50 years after MPB killed PI stands in Kootenay National Park.
- Evidence suggests that if MPB killed PI stands containing well developed secondary structure are not harvested the secondary structure will provide future harvest volumes comparable to plantations.



# **The Intent Behind Protecting Secondary Structure**

**Timber supply analysis indicates that significant areas of beetle killed pine will not be harvested.**

- If beetle killed pine stands containing well developed secondary structure are not harvested they should produce merchantable volumes without costly rehabilitation treatments.**
- If industry harvests pine stands without secondary structure and avoids harvesting pine stands with well developed secondary structure a greater percentage of the land base will be growing timber and future timber supplies should be improved.**

# **Where do the Requirements to Protect Secondary Structure Apply?**

**Protection of secondary structure is only required in lodgepole pine leading stands in the following TSAs and TFLs where an AAC uplift for MPB has been granted:**

<b>TSAs</b>	<b>TFLs</b>
<b>100 Mile House, Kamloops, Lakes, Merritt, Okanagan, Prince George, Quesnel, Williams Lake</b>	<b>18, 35, 42, 48, 49, 52, 53</b>



# **The Requirements to Protect Secondary Structure do not Apply to**

- Occupant Licences to Cut
- Master Licences to Cut with CPs
- Forestry Licences to Cut Issued by a TSM
- Road Permits
- Community Forest Agreements
- Woodlot Licences, or
- areas shown on a forest stewardship plan to be FRPA section 196(1)(a) cutblocks

**The protection of secondary structure is required on declared areas.**



## **Defining Well Developed Secondary Structure that Should be Protected**

To identify the specific types of secondary structure the government would like to see protected, the regulation defines the terms

- “adequate stocking density”
- “suitable secondary structure”, and
- “targeted pine leading stand”

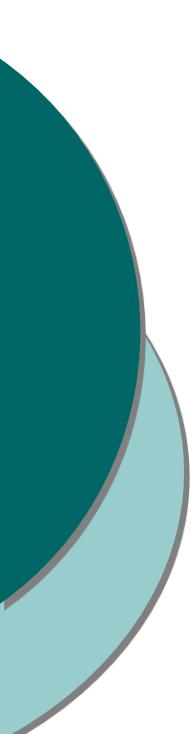
These new definitions have been placed in section 1(4) of the FPPR.



# **What is Suitable Secondary Structure?**

**“suitable secondary structure” means those saplings, poles, sub-canopy and canopy trees that are**

- (a) likely to survive an attack from MPB,**
- (b) of a preferred, acceptable or suitable species for establishing a free growing stand on the site series, and**
- (c ) of sufficiently good form, health and vigor to provide merchantable trees for future harvesting.**



# **Form, Health and Vigor of Suitable Secondary Structure Trees**

- The current free growing damage criteria from the Forest Practices Branch Silviculture Surveys website can assist forest professionals in deciding if secondary structure trees have sufficiently good form, health and vigor.
- Lodgepole pine understory trees that are badly suppressed or growing under pine trees infected with dwarf mistletoe are not suitable secondary structure.



# **Adequate Stocking Density of Suitable Secondary Structure**

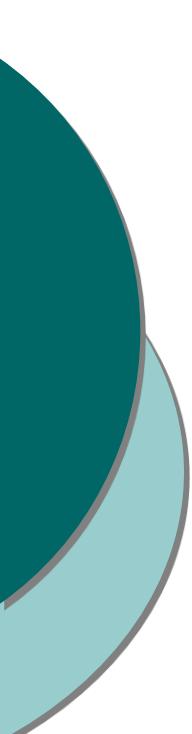
- To have an “adequate stocking density” of “suitable secondary structure” the following numbers of suitable secondary structure trees must be present per hectare:
  - **$\geq 700$  Well Spaced Trees  $\geq 6$  meters tall, or**
  - **$\geq 900$  Well Spaced Trees  $> 4$  meters tall**

**(well spaced trees must be 1.6 meters apart)**

## **“Targeted Pine Leading Stand”**

For an area to satisfy the definition of a  
**“targeted pine leading stand”** it:

- must be a lodgepole pine leading stand on a government-endorsed forest cover map,
- must have, over at least 5 hectares, an “adequate stocking density” of “suitable secondary structure”, and
- must be in a TSA or TFL where the definition allows a “targeted pine leading stand” to be located.



## **“Targeted Pine Leading Stand”**

- Stands that are not lodgepole pine leading on a forest cover map do not need to be examined for secondary structure.
- If a timber cruise or other process agreed to by the DM , before harvesting, shows that a pine leading stand on the forest cover map does not actually have lodgepole pine as the leading species, the requirements to protect secondary structure do not apply to that stand.

A photograph of a dense forest scene. The foreground is filled with the dark, vertical trunks of tall evergreen trees, likely Douglas firs, standing closely together. The ground is covered with a carpet of green moss and small, low-growing plants. In the background, more trees are visible, creating a layered effect. The sky is overcast and bright, providing a soft light to the scene.

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## **Protection of “Targeted Pine Leading Stands”**

- A new section 43.1(1) requires the holder of a CP, FLTC without CPs or a TSL to not harvest in a “targeted pine leading stand” unless prescribed conditions are satisfied or the holder is granted an exemption.

# **Conditions to Allow Harvesting in a “Targeted Pine Leading Stand”**

**Section 43.1(1) indicates it is possible to harvest in a “targeted pine leading stand” if:**

- **it is necessary to fell or modify a tree that is a safety hazard and there is no other practicable option for addressing the safety hazard,**
- **it is necessary to construct a road in the “targeted pine leading stand” and there is no other practicable option for locating the road, or**
- **at the conclusion of harvesting, an “adequate stocking density” of “suitable secondary structure” is retained.**



## **Conditions to Allow Harvesting in a “Targeted Pine Leading Stand” cont.**

**Section 43.1(2) allows harvesting in a “targeted pine leading stand” without retaining an “adequate stocking density” of “suitable secondary structure” if:**

- **the stand is subject to a significant risk of blowdown,**
- **at the time of harvesting, at least 30 % of the pine trees in the stand contain live MPBs,**
- **the harvesting is necessary to protect a community, or other area from wildfire, or**
- **the harvesting is necessary to facilitate the collection of tree seed from an opening  $\leq 1$  ha.**

# **Initial Transition Provisions for Protecting Secondary Structure**

**The new requirements to protect secondary structure under section 43.1 don't apply to:**

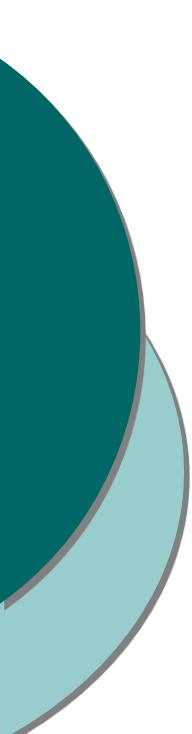
- a CP that has been issued,
- a TSL that has been advertised or issued,
- a FLTC without CPs that has been issued, or
- a CP, FLTC without CPs or a TSL where cruising or field layout was completed

**before the regulation amendments come into force  
on July 25, 2008**



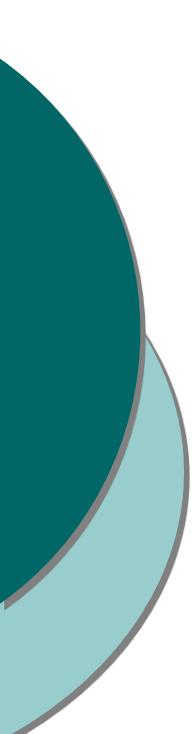
# **Conditional Exemption from Protecting “Targeted Pine Leading Stands”**

- A new section 12.21 allows a person to be exempted from the requirement to not harvest in “targeted pine leading stands” if their approved FSP contains results or strategies for the objectives set by government for timber that address the retention of “suitable secondary structure”.



# **Results or Strategies for Secondary Structure**

- **Results or strategies that address the retention of “suitable secondary structure” must be consistent with all 3 of the objectives set by government for timber in FPPR section 6.**
  
- **Schedule 1 section 1.1 contains factors that may be considered when preparing results or strategies that address the retention of “suitable secondary structure”.**



## **No Advertising, Review & Comment on FSP Amendments for Results or Strategies for Secondary Structure**

- **Section 20(6) has been added so FSP amendments that are limited to results or strategies for retention of “suitable secondary structure” will not need to be advertised in a newspaper or undergo the normal review and comment process.**



## **DM Exemptions from Protecting “Targeted Pine Leading Stands”**

**Section 91(3) allows the DM to exempt a person from the requirements of section 43.1(1) or the conditions set out in section 43.1(2)(a) to (d) if satisfied, given the circumstances or conditions applicable to a particular area, the exemption is in the public interest.**



## **DM Exemptions from Protecting “Targeted Pine Leading Stands”**

**The new exemption in section 91(3) is designed to provide greater flexibility to grant exemptions in situations where it may be practicable (i.e. feasible) to not harvest in a “targeted pine leading stand” but not harvesting the particular area would not be in the public interest.**

## **CF may Require Protection of Secondary Structure in Additional TSAs or TFLs**

- The Chief Forester (CF) may make an order designating an additional TSA or TFL as an area where “targeted pine leading stands” may be located.
- The order must be contained in a new AAC determination for the TSA or TFL that provides an AAC uplift for MPB.
- 4 months after the CF makes the order, the requirements to protect secondary structure apply in the newly designated TSA or TFL.



# **Additional Transition Provisions for Newly Designated TSAs or TFLs**

**If the CF makes an order designating a new TSA or TFL where “targeted pine leading stands” may be located, the requirements to protect secondary structure do not apply, within the newly designated area, to**

- a CP that has been issued,**
- a TSL that has been advertised or issued,**
- a FLTC without CPs that has been issued, or**
- a CP, FLTC without CPs or TSL that was cruised or laid out**

**before the order comes into force.**



## **CF may Eliminate the Requirements for Protecting Secondary Structure in a TSA or TFL**

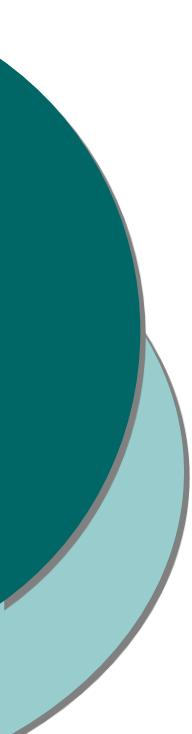
- Under section 43.2(1)(b) the CF may make an order designating a TSA or TFL as an area which may not contain a “targeted pine leading stand”.
- Such an order comes into force immediately and would effectively eliminate the requirements to protect secondary structure in that TSA or TFL.



## **Assessing Secondary Structure in Potential Cutblocks**

- The intent is to require industry to conduct an informal field assessment in lodgepole pine leading stands to determine if an “adequate stocking density” of “suitable secondary structure” is present on  $\geq 5$  hectare areas within potential cutblocks.
- Industry may need to establish survey plots in areas that appear to be “targeted pine leading stands”.





# **Suggested Survey Procedures for Assessing Secondary Structure**

**For lodgepole pine leading stands that appear to have an “adequate stocking density” of “suitable secondary structure”, a silviculture survey procedure with**

- **3.99 m radius plots,**
- **1.6 meters between well spaced trees, and**
- **a maximum of 8 well spaced trees per plot,**

**can be used to confirm the # of suitable secondary structure trees / hectare that are:**

- **$\geq$  6 meters tall, and**
- **$\geq$  4 meters tall**



# **Free Growing Requirements for Areas with Secondary Structure**

- If a “targeted pine leading stand” is left un-harvested, within a cutblock, it is a reserve area and not part of the net area to be reforested.
- There would be no obligation to establish a free growing stand on such a reserve area.
- If harvesting in a “targeted pine leading stand” creates an obligation to establish a free growing stand, the applicable free growing stocking standards continue to apply.



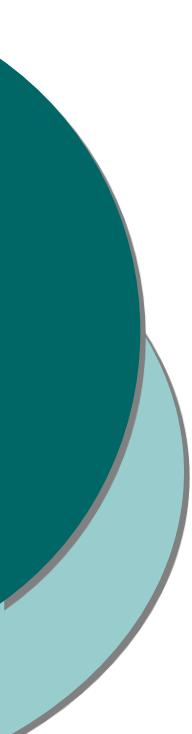
# **Free Growing Requirements for Areas with Secondary Structure**

**If harvesting in a “targeted pine leading stand”**

- **creates an obligation to establish a free growing stand, and**
- **retains an “adequate stocking density” of “suitable secondary structure” on a mappable area**

**it may be possible to declare this area to be free growing, at the conclusion of harvesting.**

- **Special conditions apply in this situation which are described in the next slide.**



# **Free Growing Requirements & Acceptable Species of Secondary Structure**

- **Section 43.1(3) indicates if a person harvests in a “targeted pine leading stand” and retains an “adequate stocking density” of “suitable secondary structure”, then each tree of “suitable secondary structure” that is retained is considered to be a tree of a preferred species for the purpose of establishing a free growing stand on the area where the “adequate stocking density” of “suitable secondary structure” is retained.**

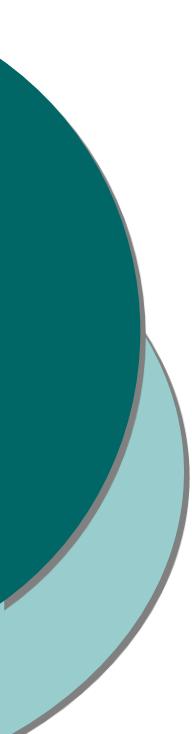


# **Reporting Secondary Structure in RESULTS**

**The intent is to report the retention of suitable secondary structure in RESULTS using existing conventions and guidelines.**

**This may involve reporting on**

- “targeted pine leading stands” that are reserved from harvesting within cutblocks,
- areas where an “adequate stocking density” of “suitable secondary structure” is retained at the conclusion of harvesting , or
- the retention of scattered “suitable secondary structure” trees.



# **Reporting Secondary Structure in RESULTS**

- A “targeted pine leading stand” reserved from harvest in a cutblock is reported as a Group Reserve with an Objective Code of TIM for timber production.
- Provide the existing forest cover label and indicate the Damage Agent (IBM), Incidence % and Incidence Area.
- Un-harvested targeted pine leading stands that are reported in RESULTS will be available in the LRDW.
- Reporting on “targeted pine leading stands” that are outside of cutblocks is optional.



# Conclusion

- The regulation amendments for secondary structure are designed to provide forest professionals with considerable flexibility to protect secondary structure that may improve future timber supplies.
- Industry may voluntarily protect areas which are < 5 ha in size and appear to have an “adequate stocking density” of “suitable secondary structure”.